Government of Meghalaya
Education Department

DERT
DIRECTORATE OF EDUCATIONAL
RESEARCH & TRAINING

Reach to Teach

CM IMPACT
Meghalaya Learning Enhancement Programme

IMPACT

CHIEF MINISTER'S INITIATIVE TO MAXIMIZE PASS ACHIEVEMENT AND CLASSROOM TRIUMPH

Module 1
March - August

CLASS 08

Achieving grade-appropriate learning levels

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Class 8: Module 1

INDEX

Note for Teachers

Dear Teacher,

The **Meghalaya Class Readiness Programme MCRP**, implemented at the start of this academic year was a **bridge course** which focused on enhancing the learning outcomes and competencies of the previous classes to help achieve the current grade-level outcomes. We sincerely appreciate your dedication, hard work, and commitment to this initiative, ensuring every student moves forward in their learning journey. The MCRP plays a crucial role in ensuring students, particularly those struggling, acquire the necessary competencies to progress through their classes without difficulty.

On completion of the MCRP, in order to assist you in conducting regular classes effectively and to keep the momentum alive, chapter-wise activities will be shared with you throughout the academic year. This will help students attain grade-level learning through experiential, activity-based elements linked to learning outcomes and competencies, and will aid you in reinforcing concepts covered in each chapter. This approach will also encourage students to reflect on and apply what they learn.

While you will be teaching the subject as per your timetable and syllabus, it is suggested that you conduct the given activities along with the chapter you are teaching from the NCERT textbook.

The following are some important points that will help you understand the usage of the modules in a better manner:

- The modules provide **suggestive activities** you can undertake while teaching a chapter. These activities are aligned with the theme/concepts of the chapter and have experiential learning at their core. These are also aligned to specific learning outcomes and competencies, thus helping your students acquire certain skills.

- At the end of each chapter, a competency-based assessment is included to help you identify your students' learning levels and determine areas that may require additional revision. These assessment activities are **aligned with the formative assessments suggested in the Assessment Blueprint** (revised in February 2025).

- A learning level tracker (as given during MCRP) is provided. Please use this to monitor individual students' achievement of learning outcomes and competencies. This will give you a clear picture of how your students are doing and what areas they need extra support in.

If you have any queries, please contact our helpline number: **6909366037**

Wishing you an engaging and fruitful academic year ahead! Here's hoping your students become independent learners and your classroom interactions remain exciting, learning outcome-driven and without additional burden to you.

Meghalaya Learning Enhancement Programme

ENGLISH

UNIT : 1
Chapter : The Best Christmas Present in the World

Activity 1 The Scarf of Memories

35 mins

Instructions

- Divide the class into groups. Each group can be of 4-5 students.
- Print out the following poem and distribute it in groups. If you are unable to print it, you may write the passage on the board.
- Ask the students to read the story. You may explain the story if required.
- Ask the students to answer the questions below.

The Scarf of Memories

One summer, a young girl named Sharon visited her grandmother, who lived in a small, peaceful village. The village was surrounded by lush green hills, and the mornings were always wrapped in a gentle mist. On Sharon's birthday, her grandmother gave her a beautiful handwoven scarf, made from the wool of local sheep. The scarf was soft and warm, perfect for the cool weather, and Sharon cherished it deeply.

However, not everything was as perfect as it seemed. A few days after her birthday, Sharon began to notice something unusual. Her grandmother, who had always been sharp and lively, seemed to forget small things. She would misplace her glasses or forget the names of people she had known for many years. It was heartbreaking for Sharon to see her grandmother like this. The doctors later confirmed that her grandmother was beginning to lose her memory.

Despite the changes, there were still moments of sweetness. Sharon would sit by her grandmother, listening to her stories about the past, and holding the scarf close to her heart. The scarf became a symbol of her grandmother's love, even as her memory faded away. To help her grandmother hold onto something precious, Sharon decided to buy a small gift for her - a wooden carving of a bird, something that reminded them both of the peaceful time they spent in the hills.

When it was time for Sharon to return home, she felt a mix of emotions. The memories of her grandmother's love filled her heart with warmth, but the reality of her grandmother's memory loss left her feeling sad. Yet, she knew that no matter what the future held, the memories of that summer with her grandmother would stay with her forever, as a reminder of the love they had shared.

Choose the correct answers from the options given:

A. What was unusual about Sharon's grandmother during her visit?

a) She was always cheerful
b) She started forgetting small things
c) She started telling more stories than usual
d) She was more active than ever before

B. How did Sharon feel when she had to leave her grandmother?
   a) She felt angry and upset
   b) She felt a mix of emotions, with sadness and warmth
   c) She was happy to leave
   d) She felt completely indifferent

C. What did the scarf symbolise for Sharon?
   a) Her grandmother's wisdom
   b) Her grandmother's love
   c) The peace of the village
   d) The cold weather of the hills

Answer the following questions:

D. How did Sharon's grandmother's memory loss affect Sharon emotionally?

_____
_____

E. How do you think Sharon's grandmother felt when she gave her the scarf? Explain your thoughts.

_____
_____

F. How does the story show the importance of love and family, even in difficult times?

_____
_____
_____

G. If you were in Sharon's place, how would you cope with seeing a loved one experiencing memory loss?

_____
_____
_____

Activity 2 Past Tense and Past Perfect Tense

35 mins

Instructions

- Begin the class with a discussion on Past Tense and Past Perfect Tense.
- Share the concept of Past and Past Perfect Tense with the students. You can refer to the following examples for sharing the concept.

Simple Past Tense		Past Perfect Tense	
Definition:	Used to describe actions that started and finished in the past.	**Definition:**	Used to show that one action happened before another action in the past.
Structure:	Subject + Verb (past form) + Object	**Structure:**	Subject + had + Past Participle + Object
Examples:	She **walked** to school. They **ate** dinner at 8 PM.	**Examples:**	She **had finished** her homework before dinner. They **had left** when we arrived.

- Write the following sentences on the board. Ask the students to complete them using correct tense.

A. By the time we arrived, the movie _____ (already/start).
B. She _____ (finish) her homework before the rain started.
C. He _____ (not, hear) the doorbell because he was listening to music.
D. I _____ (go) to the market when I saw an old friend.
E. After she _____ (leave), I realised I had forgotten my book.
F. They _____ (arrive) at the station before the train left.
G. By the time we got to the party, everyone _____ (eat) dinner.
H. He _____ (not, see) that movie before last night.
I. We _____ (not, know) the answer to the question when the teacher asked.
J. She _____ (visit) her grandmother before going to the market.

Activity 3 Speaking and Diary Writing

35 mins

Instructions

- Discuss the importance of elders in the family.
- Divide the class in pairs and give them 10 minutes to discuss with each other how they respect elders in their family.
- Next, tell students that they would be writing a diary entry. Explain that a diary is like a trusted friend where we can write about our day, thoughts, and emotions freely.
- Share a format for diary writing as well as an example.
- Ask students to write a diary entry in their notebooks based on the format, based on a day when someone disrespected an elder in their family.

Format

Date – The day, month, and year of the entry.

Day – The day of the week (optional).

Salutation – Start with "Dear Diary" (or something personal).

Body – Describe the events of the day, feelings, experiences, or anything noteworthy. This part is usually written in a casual and reflective manner.

Conclusion – End with a final thought, emotion, or summary of the day.

Signature – You can end it with your name or initials.

Chapter : The Ant and the Cricket

Activity 1 The Wise Squirrel and the Lazy Rabbit

35 mins

Instructions

- Divide the class into groups. Each group can be of 4-5 students.
- Print out the following poem and distribute it in groups. If you are unable to print it, you may write the passage on the board.
- Ask the students to read the poem. You may explain the poem if required.
- Ask the students to answer the questions below.

The Wise Squirrel and the Lazy Rabbit

In a forest green and wide,
A wise squirrel did reside.
From dawn till dusk, she'd gather nuts,
Preparing for the winter's cuts.

The rabbit, young and full of cheer,
Laughed and played, with no fear.
"Why work so hard?" he said one day,
"When the sun is bright, let's play!"

The squirrel smiled but did not rest,
She knew the future's harshest test.
As winter's cold began to bite,
The rabbit found he had no light.

"Please, squirrel, help me, I'm in need,
I've no food, no home, no heed."
The squirrel, wise, looked with care,
"I worked while you played, unaware.

Now you must learn, as I have done,
Work while the bright days still run.
Prepare while seasons bloom and glow,
Or face the cold with none to show."

The rabbit, sad, but wiser now,
Worked hard, and made a solemn vow.
When winter came, he too was strong,
Prepared, as he should have all along.

Choose the correct answers from the options given:

A. What is the primary reason the rabbit seeks help from the squirrel?
   a) He is looking for a friend to play with
   b) He is cold, hungry, and unprepared for winter
   c) He wants to learn how to work harder
   d) He needs a new home

B. In the poem, what does the squirrel do to prepare for winter?
   a) Enjoys the sunshine
   b) Gathers food and builds a nest
   c) Sleeps through autumn
   d) Plays with other animals

C. What lesson does the squirrel teach the rabbit?
   a) To enjoy the present moment without worrying about the future
   b) To work hard and plan for the future
   c) To never trust anyone
   d) To play all day long

Answer the following questions:

D. The squirrel is portrayed as wise in the poem. How does her wisdom help her during the winter months?

_____
_____

E. Do you think the rabbit learned an important lesson from his experience? What could he have done differently during the previous seasons?

_____
_____

F. Why do you think the poet chose to compare the rabbit's carefree attitude to the squirrel's hard work? What message do you think the poet is trying to convey?

_____
_____

G. In your opinion, how important is it to plan for the future, as the squirrel does? Can you think of any situations where planning ahead might be beneficial?

_____
_____
_____

Activity 2 Adjectives

35 mins

Instructions

- Have a discussion with the students on the concept of Adjectives.
- Write some examples with corresponding nouns.
- Ask the students to give some examples of adjectives in sentences.
- Divide the class into groups of 4-5. Print out the following poem and distribute it in groups. If you are unable to print it, you may write the passage on the board.
- Ask a student to come forward and underline an adjective from the poem on the board (lush, wise, proud, fairest, magnificent, calm, steady, cold, harsh, gentle, wise). Give all students a chance to do the activity.
- After all the adjectives have been underlined, ask students to use the adjectives underlined on the board to make sentences of their own, in their notebooks.
- Ask them to share their answers with the whole class.

The Owl and the Peacock

In a lush forest, quiet and wide,
A wise owl perched with feathers of pride.
A proud peacock, with colours so bright,
Strutted around in the warm sunlight.

"Look at me, owl, I'm the fairest by far,
With my magnificent feathers, I shine like a star!"
The owl, calm and steady, watched him strut,
Then flew off in silence, without a single cut.

Winter came with cold and harsh winds,
The peacock shivered, his pride now dim.
"Please, wise owl, I've learned my mistake,
I was careless—help me for old times' sake."

The owl, gentle and wise, gave a nod,
"Prepare for the future, not just the now, like I have done,
For beauty fades, but wisdom will stay on."

Activity 3 Speaking and Story Writing

35 mins

Instructions

- Ask the students: "What happens if we only write the middle of a story? Does it make sense without a beginning or end?"
- Divide students into small groups. Give each group few pieces of paper and a story-starter.
  - "One day the dinosaur family was going for a walk."
  - "One stormy night, a mysterious box appeared outside my house…"
  - "As soon as I touched the glowing stone, something incredible happened…"
  - "The little robot woke up and realised it was lost in a human world…"
  - "Deep in the forest, a secret door appeared in front of us…"
- Guide the groups to:
  - Write the beginning (set the scene).
  - Pass their paper to another group to write the middle (main action).
  - Pass again to write the end (resolution).
- Ask the groups to read the completed stories aloud.
- Discuss which stories had clear beginnings, middles, and ends, and ask students what stories they liked and why.

UNIT: 1 Assessment

35 mins

Section A (Literature)

Choose the correct answer from the given options

1. What did the author find in the junk shop?
   a) A letter
   b) Christmas present
   c) A roll-top desk
   d) Sausage
2. Jim closed the letter by saying that -
   a) he felt that he and Connie will never meet again.
   b) he feels that the war will continue for a long time.
   c) he does not want to meet Connie
   d) he was sure that he and Connie will be together soon.
3. What is the present for Connie?
   a) The letter
   b) The mistaken identity of the visitor
   c) To gain power over his enemies
   d) To become a wise ruler

Answer the following questions

4. Who had written the letter, and to whom? When was the letter written?

   _____
   _____
   _____

5. Why was the letter written - what was the wonderful thing that had happened?

   _____
   _____
   _____

6. Why do Jim and Hans think that games or sports are good ways of resolving conflicts? What are your views on this?

   _____
   _____
   _____
   _____
   _____
   _____

7. Mention the various ways in which the British and German soldiers became friends and find things in common at Christmas?

_____
_____
_____
_____
_____

Section B (Grammar)

Underline the correct form of verb from the following sentences

1. She _____ (forgot / had forgotten) to call him before he _____ (arrived / had arrived) at her house.
2. By the time the match _____ (ended / had ended), the fans _____ (left / had left) the stadium.
3. I _____ (did not recognise / had not recognised) her because she _____ (changed / had changed) so much.
4. He _____ (packed / had packed) his bags before he _____ (went / had gone) to bed.
5. When the guests _____ (arrived / had arrived), she _____ (already prepared / had already prepared) the food.

Underline the adjectives in the sentences below

6. The gentle breeze carried the scent of fresh flowers across the field.
7. The old man walked slowly with his curious dog at his side.
8. The bright sun made the colourful flowers bloom in the garden.
9. She wore a beautiful dress that was elegant and stylish.
10. The noisy children played in the wide park all afternoon.

Section C (Writing)

Imagine that you have just returned from your local market. Write a diary entry based on the format learnt. You can write about the food, handicrafts, people, and the lively atmosphere. You can also write about the different types of traditional clothing and goods sold at the market.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

UNIT: 1 Answer Key

Section A (Literature)

1. c)
2. d)
3. b)
4. The letter was written by a soldier named Jim, and was written to his wife, Connie. The letter was written during World War I, in December 1914.
5. Jim Macpherson wrote the letter to his wife, Connie, to tell her about the Christmas of 1914, when soldiers stopped fighting, exchanged gifts, and celebrated Christmas together.
6. Jim and Hans believe that games or sports are good ways of resolving conflicts because they offer a peaceful way to connect with others, build trust, and foster teamwork. For Jim and Hans, sports provided a way to break down barriers and find common ground, helping to replace violence with friendship.

   In my view, sports can indeed be a powerful tool for resolving conflicts. Through teamwork, people learn to communicate better, share goals, and respect each other's strengths and weaknesses.
7. The soldiers exchanged small gifts which helped to build a sense of friendship. They also sang Christmas carols, with both sides joining in, creating a shared musical experience. The most memorable moment was when they played a game of football together. The match gave them a break from the violence of war and allowed them to connect as fellow human beings rather than enemies. Through these simple acts, the soldiers realised they had much in common, such as the desire for peace, a love for music, and the spirit of Christmas.

Section B (Grammar)

1. She forgot to call him before he arrived at her house.
2. By the time the match ended, the fans had left the stadium.
3. I did not recognise her because she had changed so much.
4. He had packed his bags before he went to bed.
5. When the guests arrived, she had already prepared the food.
6. The gentle breeze carried the scent of fresh flowers across the field.
7. The old man walked slowly with his curious dog at his side.
8. The bright sun made the colourful flowers bloom in the garden.
9. She wore a beautiful dress that was elegant and stylish.
10. The noisy children played in the wide park all afternoon.

Section C (Writing)

Since creative writing tasks are subjective in nature, the answers will vary from student to student. Some aspects to consider while evaluating diary entry are:

- Does it follow the format of a diary (date, first-person narration, informal tone)?
- Is the content relevant to the given prompt or theme?
- Does the paragraph have a clear beginning, middle, and end?
- Are the sentences complete and grammatically correct?
- Does the paragraph avoid excessive repetition?
- Does the student use a range of vocabulary instead of repeating the same words?
- Are common words spelled correctly?
- Is proper punctuation used (capital letters, commas, periods, etc.)?
- Is the paragraph coherent?
- Is there a personal touch or unique perspective in the writing?
- Are common words spelled correctly?

Learning Level Tracker

Keep a record of unit assessment results in the tracker.

As you conduct assessments based on the activities suggested, put a tick mark as per the following:

Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: English		
Roll No.	Name of the Student	Unit: 1		
		Chapter:	1. The Best Christmas Present in the World	
			2. The Ant and the Cricket	
		Level 1	Level 2	Level 3

UNIT : 2

Chapter : The Tsunami

Activity 1 The Storm that United Us

35 mins

Instructions

- Divide the class into groups of 4 to 5 students.
- Distribute printouts of the following story in the groups. If you are unable to arrange printouts, you may write the story on the board.
- Ask the students to read and discuss the story in groups.

The Storm That United Us

In the village of Thangkhiew, nestled among rolling hills and lush forests, life was peaceful until a fierce monsoon storm struck. The rain poured relentlessly for days, and on the fourth day, a massive landslide blocked the only path to the village, trapping the villagers and destroying many homes.

Among the villagers was 13-year-old Lynnia, known for her quick thinking. When the landslide struck, she rushed to help. She found Auntie Tynsong, an elderly woman, trapped under debris. With the help of her friends, Lynnia freed her, and they followed Boro, a dog who had found a safer path to higher ground.

As the rain intensified, the villagers huddled together in the community hall, uncertain of what to do. Mrs. Rynjah, Lynnia's mother, calmed the crowd. "We must help each other," she said, inspiring the villagers to stay strong.

The next morning, a second landslide threatened the village. Lynnia and the young villagers worked to clear the debris. During this time, Auntie Nongsiej noticed the village's goats moving in an unusual pattern. The goats seemed to instinctively avoid the dangerous areas where the landslide had struck. They followed paths through the hills that were still safe, and the villagers realised the animals had found a route to higher ground that wasn't blocked. Thanks to the goats' intelligence, they guided the villagers to a safer place.

Meanwhile, Ziki, a donkey, stood by the clear paths, offering support and helping carry supplies. The animals' cleverness and bravery, from Boro the dog to Ziki the donkey and the goats, played a crucial role in keeping the villagers safe.

By afternoon, the villagers cleared a path and sent word to a neighbouring village for help. Rescue teams soon arrived with supplies. The villagers of Thangkhiew, supported by their animals' bravery, rebuilt their homes and lives, united in the strength of their community.

In the end, the storm showed that when people and animals work together with courage, no challenge is too great to overcome.

- Then, have each group role-play the scene from the story describing the aftermath of the storm.
  - Each student should take on the role of a villager, animal, or rescue team member. They should discuss how they contributed to rebuilding the village. They should include conversations where characters (both human and animal) share their experience of working together.
- After the role-play in groups, have a brief reflection session with the class where students discuss how teamwork, of both humans and animals, made recovery possible.

Activity 2 Active and Passive Voice

35 mins

Instructions

- Begin the class by briefly explaining the difference between Active and Passive Voice:
  - *Active Voice*: The subject performs the action (e.g., The cat chased the mouse).
  - *Passive Voice*: The subject receives the action (e.g., The mouse was chased by the cat).
- Provide a few simple examples on the board and demonstrate the conversion process.
- Divide the class into small groups (3-4 students per group).
- Place a set of active sentences (on slips of paper) at your desk.
  - *Examples*:

    She writes a letter.

    The chef cooked a delicious meal.

    The players won the match.
- Ask one student from each group to come to your desk and pick up a sentence. The student should take the slip back to their group and the group should work together to convert the active sentence into passive voice. For example – "She writes a letter" becomes "A letter is written by her."
- Once done, another group member comes forward to take another sentence slip.
- Review some of the sentences with the whole class to ensure understanding.
- You can repeat this activity for conversion of sentences from passive to active voice as well.

Activity 3 Speaking and Paragraph Writing

35 mins

Instructions

- Ask students what they understand by "floods". You can then note down the responses by writing them on the board.
- Next, you can add to the students' responses by explaining to the class what a flood is. You can refer to the notes below.

Teacher's Notes

A flood happens when too much water covers the land, usually because of heavy rainfall, river overflow, or melting snow.
Floods are common in areas with poor drainage systems or steep slopes, which makes these places more vulnerable during the monsoon season.

- Ask students to imagine what they would do if there was a flood in their village or town. Ask students to write a paragraph based on their imagination.

- Provide them clues for the paragraph like the following:
  - Move to higher ground
  - Avoid floodwater
  - Listen to warnings on radio, TV, mobile
  - Go to a safe and strong place like a building
  - Prepare an emergency kit with food, water, flashlight, medicines
  - Stay calm and avoid panic
  - Help others if possible

UNIT : 2

Chapter : Geography Lesson

Activity 1 Cities and Villages

35 mins

Instructions

- Print out the following poem and distribute it to students. If you are unable to print it, you may write the poem on the board.
- Ask the students to read the poem. You may explain the poem if required.
- Ask the students to answer the questions below.

Cities and Villages

Cities are bustling, full of life,
With busy streets and endless strife.
Skyscrapers rise, so tall and grand,
While cars and buses crowd the land.

In villages, the air is still,
The fields are green, and time is chill.
The sound of birds and rivers flow,
And life moves at a gentle slow.

In cities, lights shine bright at night,
With neon signs and dazzling light.
The markets hum with voices loud,
As people gather in the crowd.

But in the village, stars appear,
And moonlight whispers calm and clear.
The fields are ploughed, the cattle graze,
And children run through sunlit days.

Cities are busy, always on the go,
With shops and people in constant flow.
Villages are peaceful, where nature reigns,
With open skies and simple plains.

Both have their charm, their own delight,
One's full of speed, the other's quiet light.
But whether city or village, you'll always see,
A different rhythm, a different key.

A. Match the words from Column A (words from the poem) with correct meanings from Column B.

Column A (Words from the Poem)	Column B (Meaning)
a. Bustling	i. To feed on grass (usually for animals)
b. Strife	ii. Tall buildings, often in cities
c. Skyscrapers	iii. Soft sounds, quiet speech
d. Chill	iv. Excitement or activity
e. Graze	v. Peace or calm, free from disturbance
f. Neon	vi. Lighted by brightly coloured signs, often electric
g. Whispers	vii. Enjoyment or happiness
h. Delight	viii. Disagreement or conflict

B. Based on poem, describe villages in 3-4 sentences.

_____
_____
_____
_____

C. Based on the poem, describe cities in 3-4 sentences.

_____
_____
_____
_____

D. What does the line "both have their charm, their own delight" tell you about the poet's view of cities and villages? Do you agree with that view or disagree, and why?

_____
_____
_____
_____
_____
_____
_____

Activity 2 Tenses

35 mins

Instructions

- Have a discussion with students on tenses related to time.
- Write some sentences on the board and ask them to identify the tenses.
- Write some sentences with Present Tense and show them how to rewrite them by changing the tenses.

Examples

Present Tense	Past Tense	Future Tense
My father cooks for me.	My father cooked for me.	My father will cook for me.
She comes to school by bus.	She came to school by bus.	She will come to school by bus.

- Divide the class into two or more teams. Each team will take turns contributing to a story. If you have a large class, you can break it into smaller groups to make it more manageable.
- The first student will start the story in the present tense (e.g., "I wake up early every morning."). The next student from the other team must continue the story in the past tense (e.g., "Yesterday, I woke up late."). The following student from a different team must continue the story in the future tense (e.g., "Tomorrow, I will wake up at 7 a.m.").
- The students continue the story, alternating between tenses with each new sentence.
- After each round, check the tense used and make sure the students follow the correct form of the verb for the chosen tense. If a student gets confused or uses the wrong tense, kindly guide them and ask them to correct it.
- If you want to add an additional challenge, you can give the students a theme (e.g., "A day at the beach," "My dream vacation," or "A mysterious adventure") that they must follow throughout the story.
- Set a timer for each student (e.g., 30 seconds) to think of their sentence and write it or say it aloud. This keeps the game fast paced and exciting.
- As students become more comfortable with the game, you may add more tenses, like present perfect ("I have run a marathon before") or past perfect ("I had already run five miles when I heard the announcement").

Teacher's Notes

Examples of a Tense Story Relay

Student 1 (Present Tense):

"I wake up early every morning and go for a run."

Student 2 (Past Tense):

"Yesterday, I forgot to set my alarm and woke up late."

Student 3 (Future Tense):

"Tomorrow, I will try to wake up earlier to avoid being late."

Student 4 (Present Tense):
"I am planning to go for a run in the park after breakfast."
Student 5 (Past Tense):
"Last week, I ran five miles for the first time."
Student 6 (Future Tense):
"Next year, I will run a marathon in London!"

Activity 3 Speaking and Paragraph Writing

35 mins

Instructions

- Have a discussion with students on the topic of "Conservation of Nature".
- Write the following keywords on the board in connection with the topic and ask students what each word means. You can help with word meanings for added clarity.

Key Words

Environment
Biodiversity
Pollution
Climate change
Sustainability
Wildlife
Preservation

- Next, have a discussion on how the students can write a paragraph on the topic - Conservation of Nature. Write the paragraph structure on the board and encourage them to follow the same as they write their paragraph. Students should also include the key words in their paragraphs.

Paragraph Structure

- **Beginning:** Introduce the importance of nature conservation.
- **Middle:** Explain the threats to nature, such as pollution and climate change, and how they affect biodiversity and wildlife.
- End: Discuss the steps that can be taken to preserve nature and ensure a sustainable future

Write a paragraph on the topic of "Conservation of Nature".

_____
_____
_____
_____
_____
_____
_____
_____

UNIT: 2 Assessment

35 mins

Section A (Literature)

Choose the correct answer from the given options:

1. Which of these is a characteristic of a tsunami?
   a) It is a single large wave.
   b) It can occur with little or no warning.
   c) It only affects coastal areas in the Pacific Ocean.
   d) It is caused by strong winds.
2. How does the chapter suggest people can protect themselves from a tsunami?
   a) By moving to higher ground immediately.
   b) By staying indoors during a tsunami.
   c) By building stronger houses.
   d) By waiting for help from local authorities.
3. In the poem, what is the effect of seeing the cities and countries from a distant, broader perspective?
   a) It makes the conflicts between countries seem larger.
   b) It signifies the smallness of human-made divisions compared to the vastness of the Earth.
   c) It makes cities appear more divided and isolated.
   d) It makes human history appear more significant.
4. In the poem, what does the word "hate" symbolise?
   a) The divisions created by human conflict and hostility.
   b) The emotional distance between people in different regions of the world.
   c) The destructive impact of conflicts between nations on the environment.
   d) The strong dislike of unfamiliar geographical locations.

Answer the following questions:

5. What did Meghna and Almas teach us about the human response to natural disasters?

6. Reflecting on the chapter "The Tsunami," how do you think natural disasters like tsunamis affect both human lives and the environment? Discuss the emotional, physical, and social consequences on individuals, communities, and environment.

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7. How does the poem make you reflect on the divisions in the world?

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Section B (Grammar)

In the following sentences, change the voice from active to passive and from passive to active.

1. She plays the piano every day.

   _____

2. The cake was baked by my mother yesterday.

   _____

3. They will complete the project by next week.

   _____

4. The car was washed by the children on Saturday.

   _____

5. He reads books in the library.

   _____

Rewrite the following sentences following the instructions.

6. She writes a letter every week.
   Rewrite in Past Tense: _____
7. They watched a movie yesterday.
   Rewrite in Present Tense:_____
8. I will help you with the assignment.
   Rewrite in Past Tense: _____

9. We play football every Sunday.
   Rewrite in Future Tense:_____
10. She sang a beautiful song at the concert yesterday.
    Rewrite in Future Tense:_____

Section C (Writing)

Write a paragraph on the topic "The Power of Friendship in Creating a Better World". You can use the following points as clues:

Support and Encouragement: Friendship provides emotional support, helping individuals navigate difficult times.

Fostering Understanding and Tolerance: True friends understand each other's differences and help bridge cultural or social divides.

Promoting Acts of Kindness: Friends encourage each other to perform acts of kindness and make the world a better place.

Conflict Resolution: Friendships teach conflict resolution, helping people find peaceful solutions to disagreements.

Creating Stronger Communities: Friendships strengthen social bonds, leading to more cohesive and harmonious communities.

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UNIT: 2 Answer Key

Section A (Literature)

1 b)
2. a)
3. b)
4. a)
5. Meghna and Almas teach us about the strength of the human spirit in the face of adversity. Both girls showed incredible courage despite the trauma and loss they faced due to the tsunami. They also highlight the importance of community support, as people often come together to help one another recover in the aftermath of a disaster. Their stories emphasise how individuals, even children, can rise above difficult circumstances, find strength, and contribute to rebuilding their lives and communities.
6. Disasters like tsunamis have severe emotional, physical, social, and environmental consequences. Emotionally, survivors often face grief, and loss, with many struggling with conditions like depression or trauma. Physically, the destruction of buildings, roads, and infrastructure leads to the loss of life and injuries. The spread of diseases and health risks due to unsanitary conditions make recovery harder, and rebuilding takes significant time and effort. Socially, families are separated, and people are displaced from their homes. The destruction of schools, hospitals, and workplaces hampers recovery and makes it difficult for people to get back to normal life. Environmentally, coastal areas are often destroyed, displacing animals and destroying habitats. Water contamination and the loss of biodiversity have long-lasting effects on the environment. Overall, the consequences of such disasters are widespread, affecting every part of life, and recovery requires both local and global efforts.
7. The poem encourages reflection on the artificial nature of the divisions and borders in the world. By depicting the Earth from an aerial view, the poet shows that the borders drawn by humans are not visible or significant from a broader perspective. This makes us question why such boundaries exist and how they often lead to conflict and division. The poem suggests that, in the grand scale of the planet and the universe, these divisions seem meaningless, urging us to see beyond national or cultural borders and foster unity and peace.

Section B (Grammar)

1. The piano is played by her every day.
2. My mother baked the cake yesterday.
3. The project will be completed by them by next week.
4. The children washed the car on Saturday.
5. Books are read by him in the library.
6. She wrote a letter every week.
7. They watch a movie every day.
8. I helped you with the assignment.
9. We will play football every Sunday.
10. She will sing a beautiful song at the concert.

Section C (Writing)

Since creative writing tasks are subjective in nature, the answers will vary from student to student. Some aspects to consider while evaluating paragraph writing are:

- Is the content relevant to the given prompt or theme?
- Does the paragraph have a clear beginning, middle, and end?
- Are the sentences complete and grammatically correct?
- Does the paragraph avoid excessive repetition?
- Does the student use a range of vocabulary instead of repeating the same words?
- Are common words spelled correctly?
- Is proper punctuation used (capital letters, commas, periods, etc.)?
- Is the paragraph coherent?

Learning Level Tracker

Keep a record of unit assessment results in the tracker.

As you conduct assessments based on the activities suggested, put a tick mark as per the following:

Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: English		
Roll No.	Name of the Student	Unit: 2		
		Chapter:	1. The Tsunami	
			2. Geography Lesson	
		Level 1	Level 2	Level 3

UNIT : 3

Chapter : Glimpses of the Past

Activity 1 Indian History from 1757 to 1857: Key Players

35 mins

Instructions

- Divide the class into 6 groups.
- Distribute printouts of the following passage in the groups. If you are unable to arrange printouts, you may write the passage on the board.
- Ask the students to read and discuss the passage in groups.

Indian History from 1757 to 1857: Key Players

The period between 1757 and 1857 was one of dramatic change for India. During these 100 years, India experienced the rise of British power, the decline of local kingdoms, and the beginning of resistance against colonial rule. Here are some of the key players who shaped the events of this period:

1. Robert Clive (1725–1774)

Robert Clive was a British officer who played a crucial role in the expansion of the British East India Company's power in India. The most significant event under his leadership was the Battle of Plassey in 1757, where he defeated the Nawab of Bengal, Siraj-ud-Daula. This victory established British dominance in Bengal and marked the beginning of British rule in India.

Key Contributions:

**Led the British to victory in the Battle of Plassey.*

**Helped secure British control over Bengal, which became the base for British expansion in India.*

2. Siraj-ud-Daula (1733–1757)

Siraj-ud-Daula was the last independent Nawab of Bengal, who opposed the growing power of the British East India Company. His defeat at the Battle of Plassey marked the end of his reign and the beginning of British dominance in Bengal.

Key Contributions:

**Defended Bengal from British interference.*

**Fought the British in the Battle of Plassey, which ultimately led to his defeat.*

3. Raja Ram Mohan Roy (1772–1833)

Raja Ram Mohan Roy was a reformer who played an essential role in the social and cultural changes of India during British rule. He was a key figure in the early movement to modernise Indian society by challenging harmful customs like Sati (the practice of widows self-immolating on their husband's funeral pyre).

Key Contributions:

**Founded the Brahmo Samaj, which promoted social reform and religious tolerance.*

**Campaigned for the abolition of Sati and worked towards modernising education in India.*

4. Bahadur Shah Zafar (1775–1862)

Bahadur Shah Zafar was the last Mughal emperor of India. Although his reign was mostly symbolic due to the British control over India, he became an important figure during the Sepoy Mutiny of 1857. He was declared the leader of the revolt against the British and played a key role in inspiring Indians to resist British rule.

Key Contributions:

**Led the First War of Indian Independence (1857) against British rule.*

**Was captured by the British after the mutiny was crushed, marking the end of the Mughal dynasty.*

5. Mangal Pandey (1827–1857)

Mangal Pandey is considered a hero and martyr in India for his role in the Sepoy Mutiny. He was an Indian soldier in the British East India Company's army who rebelled against the British after he was asked to use rifle cartridges that were rumoured to be greased with cow and pig fat, offending both Hindu and Muslim soldiers. His actions sparked the rebellion that spread across India.

Key Contributions:

**Played a key role in the early stages of the Sepoy Mutiny by attacking British officers.*

**His revolt marked the beginning of widespread resistance against British rule.*

6. The British East India Company

The British East India Company was a powerful corporation that controlled much of India before the British government took over in 1858. It was responsible for many of the policies and decisions that led to British dominance in India. The company's officials often exploited local resources, which caused great suffering for Indians, especially farmers.

Key Contributions:

**Controlled vast areas of India, including Bengal, after the Battle of Plassey.*

**Played a major role in shaping the British Empire's policies in India.*

- Then assign each group a key player from the passage.
- Ask one group member to come forward, tell them their assigned key player.
- Tell the group member to sit in the "hot seat," where they become one of the key players in the story (Robert Clive, Siraj-ud-Daula, Raja Ram Mohan Roy, Bahadur Shah Zafar, Mangal Pandey, The British East India Company).
- The other students from their group can ask them yes/no questions about their actions, motivations, and impact on Indian history. For example, did you play a key role in the early stages of the Sepoy Mutiny?
- The group member can answer in yes or no only. The other members must guess the key player using the information they gathered in the passage.
- After the activity, have a discussion with the class on the main points in the passage.

Activity 2 Direct and Indirect Speech

35 mins

Instructions

- Have a discussion with the students on direct and indirect speech.
- Discuss about the differences with examples.
- Discuss the rules for transforming the sentences from Direct to Indirect Speech.
- Write some examples on board and help them to transform the sentences.
- Divide the class into groups of 5-6 students.
- Write on the board a few direct speech quotes as below on social issues.
  - "Sati is a social evil, and we must work to abolish it." – *Raja Ram Mohan Roy*
  - "It is our duty to educate the masses and remove ignorance." – *Raja Ram Mohan Roy*
  - "We cannot ignore the welfare of women in society." – *Mahatma Jyotirao Phule*
- Ask each group to create their own quotes in direct speech on social issues they care about today (e.g., gender equality, education for all). Then, have other groups convert them into indirect speech.
  - For example - group 1 can create quotes, and group 2 converts them into indirect speech. Then group 2's quotes get converted by group 3, and so on.
- The combined quotes can be written on the board. This activity will also bring out the creativity and interest of students regarding social issues.

Teacher's Notes

- *No Quotation Marks* - Remove quotation marks and adjust the sentence structure.
- *Change in Pronouns* - Pronouns are adjusted to match the perspective of the reporting speaker. Example: Direct: She said, "I am happy." Indirect: She said that she was happy.
- *Change in Tenses* - If the reporting verb is in the past tense, the tense in the quoted speech usually shifts to a past form.
  - Present Simple → Past Simple
  - Present Continuous → Past Continuous
  - Present Perfect → Past Perfect

  Example: Direct: He said, "I am eating." Indirect: He said that he was eating.
- *Time and Place Words* - words like "now," "today," "here," etc., change to reflect the context of the reporting.

  Examples: "Now" → "then", "Today" → "that day", "Here" → "there"
- *No Tense Change Exceptions* - If the reporting verb is in the present or future tense, the tense of the quoted speech doesn't change. Example:

  Direct: She says, "I like coffee." Indirect: She says that she likes coffee.
- *Reporting Questions* - For yes/no questions, use "if" or "whether." For WH-questions, the question word is retained.

  Example:

  Direct: He asked, "Where are you going?"

  Indirect: He asked where I was going.
- *Imperatives and Requests* - replace the imperative with "to" + verb. Example: Direct: She said, "Close the door."

  Indirect: She told me to close the door.

Activity 3 Speaking and Story Writing

35 mins

Instructions

- Divide the class into groups of 5-6 students.
- Provide printouts of the following dialogues to the groups or write them on the board.
- Then ask the groups to discuss and write a story based on the dialogues. Mention that they should include characters and their names in the story. They should also provide a title for the story.
- After group work, each group should read out their story to the class.

Create a story based on the following dialogues:

On the Battlefield - "Listen up, everyone! The enemy is closing in. We must hold this position, no matter the cost. This is our land, and we will defend it with our lives!"

The Battle Intensifies - "Steady, men! Steady! We fight not for glory, but for what is right. For honour! Now, take your positions!"

After the Battle - "We did it. We held them off. It wasn't easy, but each one of you displayed extraordinary courage today."

The Reflection - "Remember, true bravery is never shown in the absence of fear, but in the decision to fight despite it. You are all brave in your own way. Never forget that."

UNIT: 3 Assessment

35 mins

Section A (Literature)

Choose the correct answer from the given options-

1. Which of the following was the biggest reason for the British East India Company to become powerful in 18th century India?
   a) The support from the Indian masses
   b) The establishment of British educational institutions
   c) Rivalry among Indian princes and states
   d) British economic superiority over India
2. What was one of the effects of British rule on India's economy during the 18th and 19th centuries?
   a) Indian industries flourished while the British struggled economically
   b) British industries grew, but Indian industries were unaffected
   c) Indian economy grew stronger under British rule
   d) The British prospered through the loot from the Company, while Indian industries began to decline
3. Raja Ram Mohan Roy was attracted by which of the following during his lifetime?
   a) Traditional Indian arts and literature
   b) Science and modern knowledge
   c) Religious rituals and customs
   d) Ancient Indian architecture
4. Who was the emperor of India during the Revolt of 1857?
   a) Maharaja Ranjit Singh
   b) Bahadur Shah Zafar
   c) Lord Dalhousie
   d) Lord Curzon

Answer the following questions:

5. Which ideas of religious leaders were made fun of by the British?

   _____
   _____
   _____
   _____

6. What changes were seen by introduction of English?

   _____
   _____
   _____

7. What were the main reasons that allowed the British East India Company to gain power over India in the 18th century?

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_____

Section B (Grammar)

In the following sentences, change from Direct Speech to Indirect Speech, and vice versa.

1. "I am going to the market," said John.

_____

2. "Where did you put my book?" she asked.

_____

3. The teacher said, "Please complete your homework by tomorrow."

_____

4. "I have finished my project," said Francis.

_____

5. "Can you help me with this problem?" asked Mary.

_____

6. He asked if I had seen his keys.

_____

7. She told me that she would come to the party later.

_____

8. "I will call you after dinner," said mother.

_____

9. "Are you coming to the cinema with us?" asked Ridalin.

_____

10. The coach informed the players that the match would be postponed.

_____

Section C (Writing)

Read the following dialogues and write a story based on them. Include what you think might have happened before, and what might happen later. How will Samuel and Linda find their way back home?

Samuel: "Wait, Linda, I think we've gone off the path. This doesn't look familiar."
Linda: "Oh no, you're right. I thought we were following Uncle Robert, but now I'm not sure. What do we do?"
Samuel: "Should we shout for help? Or is it better to wait for him?"

UNIT: 3 Answer Key

Section A (Literature)

1. c)
2. d)
3. b)
4. b)
5. The religious leaders were preaching ideas like untouchability and child marriage. They also said that anyone who crossed the seas would lose their religion. Women, according to them were the cause of all the problems in the world.
6. Introduction of English led to presence of clerks who got small jobs under the British. It also led to many people becoming learned and intelligent.
7. Several key factors helped the British East India Company establish and expand its power in India during the 18th century. The internal conflicts and rivalries between Indian rulers greatly contributed to the British gaining power. While Indian rulers were often fighting amongst themselves, the British East India Company exploited these divisions. The British East India Company prospered economically by taking control of India's trade and resources. The wealth generated from this control helped the British strengthen their military and political power. The decline of Indian industries under British policies also enabled the Company to benefit immensely from India’s resources. The British used diplomatic tactics to secure alliances with some Indian rulers, while simultaneously working to undermine others.

Section B (Grammar)

1. John said that he was going to the market.
2. She asked where I had put her book.
3. The teacher asked us to complete our homework by the next day.
4. Francis said that he had finished his project.
5. Mary asked if I could help her with the problem.
6. He said, "Did you see my keys?"
7. She said, "I will come to the party later."
8. Mother said that she would call me after dinner.
9. Ridalin asked if I was coming to the cinema with them.
10. The coach said, "The match will be postponed."

Section C (Writing)

Since creative writing tasks are subjective in nature, the answers will vary from student to student. Some aspects to consider while evaluating story writing are:

- The plot is the sequence of events that make up the story. It includes introduction, rising action, climax, falling action, and conclusion.
- Characters are the people or beings that drive the story forward.
- The setting is where and when the story takes place.
- The conflict is the central problem or challenge the characters face.
- The theme is the central idea or message the story conveys.
- The point of view is the perspective from which the story is told.
- Dialogue is the conversation between characters.
- Style and Language - the way the story is written affects its tone and impact.
- Pacing refers to how quickly or slowly the events unfold in the story.
- Often, stories have a deeper moral or lesson for the reader.

Learning Level Tracker

Keep a record of unit assessment results in the tracker.

As you conduct assessments based on the activities suggested, put a tick mark as per the following:

Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: English		
Roll No.	Name of the Student	Unit: 2		
		Chapter: Glimpses of the Past		
		Level 1	Level 2	Level 3

UNIT : 4

Chapter : Bepin Choudhury's Lapse of Memory

Activity 1 The Forgotten Picnic

35 mins

Instructions

- Divide the class into groups of 4 to 5 students.
- Distribute printouts of the following story in the groups. If you are unable to arrange printouts, you may write the story on the board.
- Ask the students to read and discuss the story in groups.

The Forgotten Picnic

Lina Williams was a bright and independent young woman who lived in a town in Meghalaya. She worked as an assistant editor at a local magazine. One rainy afternoon, while walking home from the office, she bumped into a woman named Ruth Thomas, who claimed to be an old school friend. Ruth said they had studied together at St. Mary's School in Shillong and spent a lot of time together. She mentioned a picnic trip to Cherrapunji, which Lina couldn't recall at all.

"Don't you remember, Lina?" Ruth asked. "We got caught in the rain on our trip to Cherrapunji. You were terrified, but we had so much fun." Lina's mind went blank. She couldn't recall the trip or Ruth. She tried to smile and politely explained that she might have forgotten, but Ruth's insistence made her uneasy. For the next few days, Lina found herself thinking about the encounter. Could it be that she had forgotten something so significant?

A few days later, Lina received an unexpected letter at her office. It was from Ruth Thomas, written in a neat, flowing script. The letter spoke of the Cherrapunji picnic again and how much fun they had, especially during the rain. Ruth wrote about how Lina had been too shy to dance during the picnic, but how she had finally joined in and laughed with everyone. The letter mentioned little details that seemed familiar, but Lina still couldn't remember the event. She became convinced that she must have suffered some kind of memory lapse. The idea of forgetting such an important event troubled her deeply, and she couldn't focus on anything else.

Determined to get to the bottom of it, Lina decided to visit her old school. She met Miss Margaret, her old schoolteacher, and asked her about the picnic. To her surprise, Miss Margaret smiled and said, "Ah, the picnic to Cherrapunji! That was in Ruth's imagination, not reality. We never went on such a trip."

Confused, Lina asked for clarification. Miss Margaret explained, "Ruth had been upset that you had forgotten her after school. She created this story, wrote you the letter, and pretended to be an old friend. She wanted to make you feel like you had missed something important."

It turned out that Ruth was not a real friend, but someone who had once been in Lina's class. The whole incident was a carefully planned prank to make Lina question her memory.

Lina was initially embarrassed, but as she reflected on the situation, she realised something important. She had always prided herself on her sharp memory, and this had made her self-assured and somewhat unaware of how she might have been treating others. Ruth's prank forced Lina to recognise that having a perfect memory did not make her superior, and that relationships and connections were far more important than remembering every single detail of her life. She learned to value people and experiences over her own rigid belief in perfect recall, and from then on, Lina became more humble and considerate of others' feelings.

- In groups, students should write answers to the following questions.
  - What was Miss Margaret's role in clearing the confusion about the picnic?
  - What lesson did Lina learn at the end of the story?
  - Do you think it is ever okay to play a prank on someone to teach them a lesson? Why or why not?
  - Imagine you are continuing the story. What happens to Lina after the prank? Does she meet Ruth again? Does she take any action based on what she learned? Write a few sentences imagining how the story might continue.
- Have the groups share their answers with the class to discuss any points missed out.

Activity 2 Idioms

35 mins

Instructions

- Define idioms for students and explain rules for idioms. You may refer to the notes below.

Teacher's Notes

Definition of idioms: An idiom is a phrase or expression in which the meaning is not literal but figurative, often specific to a particular language or culture. The individual words in the idiom usually do not reflect the overall meaning of the phrase.

Rules for using idioms:

- *Fixed phrases:* Idioms are fixed expressions. The words in an idiom cannot be changed or replaced. Example: You can't say "cost an arm and a foot" — it must be "cost an arm and a leg."
- *Meaning is not literal:* The meaning of the idiom cannot be understood by looking at the individual meanings of the words. Example: "Break the ice" doesn't mean literally breaking ice; it means to start a conversation.
- *Context matters:* The meaning of an idiom is often understood only in the correct context. It can change based on the situation or conversation. Example: "Spill the beans" means to reveal a secret in one context, but in another, it might refer to making a mistake.
- *Cultural specificity:* Some idioms may be unique to certain cultures or regions, so their meanings may not be clear to people from different countries. Example: The idiom "barking up the wrong tree" is common in British and American English, but it might not make sense in other languages.

- Divide the class into 4 groups. Provide 5 idioms to each group, along with their meanings. Some idioms are given below:
  - A stitch in time saves nine – *It's better to deal with a problem right away than wait and let it get worse.*
  - A penny for your thoughts – *Used to ask someone what they are thinking.*
  - Bite the bullet – *To do something difficult or unpleasant that you have been avoiding.*
  - Break the ice – *To start a conversation or activity in a social setting to make people feel comfortable.*
  - Call it a day – *To stop working for the day.*
  - Don't count your chickens before they hatch – *Don't assume something will happen before it actually does.*
  - Hit the nail on the head – *To describe exactly what is causing a situation or problem.*

- In hot water – *In trouble or facing difficulties.*
- It's not rocket science – *It's not difficult to understand.*
- Let the cat out of the bag – *To accidentally reveal a secret.*
- Off the beaten track – *In a place or situation that is unusual or not commonly visited.*

- Each group should create and write a story using the idioms.
- Then, the groups will share their stories with the class.
- After a group shares their story, doubts regarding idioms can be addressed.
- The class can then decide which group created the best story!

Activity 3 Notice Writing

35 mins

Instructions

- Explain the concept of notice-writing to the students. You may refer to the notes below.

Teacher's Notes

A notice is a formal written communication intended to inform or announce something to a specific group of people. It is usually brief and to the point, providing essential details about an event, activity, or important information.

- ***Structure of a Notice:***
  - Heading: The word "NOTICE" should be clearly written at the top.
  - Title/Subject: The subject of the notice is written just below the heading to explain the purpose (e.g., "Inter-School Sports Day," "Lost and Found," "Summer Camp Registration").
  - Date: The date when the notice is being written or issued is placed at the top left corner.
  - Body:
    a. Introduction: Briefly introduce the purpose of the notice.
    b. Details: Include relevant information such as time, date, place, and other necessary details.
    c. Instructions/Action: Mention any instructions or actions expected from the readers (e.g., registration, participation).
- Signature: The notice should be signed by the person issuing it, usually with their name, designation, and contact details (if necessary).

Example of a Notice

NOTICE

Lost and Found

Date: 10th April 2025

This is to inform all students that a blue backpack was found in the school library yesterday. The owner can collect it from the Lost and Found desk near the main office.

Details:

- Item: Blue backpack
- Location found: School Library
- Contact: Mrs. Smith, Receptionist

Please collect the item within one week.

Issued by:

John Roberts, Head of Student Welfare

- Divide the class in groups of 4 to 5 students.
- Each group should brainstorm and come up with an event (e.g., a traditional festival, a local sports event, or a community clean-up) happening in a town or village.
- After deciding on the event, they will write a notice to inform the community about it.
- **Some event ideas:**
  - Music Festival
  - Traditional Dance Performance
  - Clean-Up Drive
  - Sports Day at School
  - Picnic along the Riverfront

Chapter : The Last Bargain

Activity 1 The True Treasure

35 mins

Instructions

- Print out the following poem and distribute it to students. If you are unable to print it, you may write the poem on the board.
- Ask the students to read the poem. You may explain the poem if required.
- Ask the students to answer the questions below.

The True Treasure

I sought a crown, with jewels bright,
To shine and gleam in the moonlight,
But when I wore it, I found no cheer,
For the weight of it filled me with fear.

I chased for fame, to hear applause,
But found no peace in the crowded cause,
For the praise faded, like the dawn,
And I was left, again, all alone.

I searched for gold, for wealth so vast,
But money slipped away, and didn't last,
Then in a field, with flowers in bloom,
I found true joy, and banished gloom.

For the true treasure, I now know well,
Is freedom and peace, where the heart can swell,
Not in riches or fame's bright glow,
But in simple joys that help us grow.

- Divide the class into groups with 4-5 students each. Provide each group with a couple of chart papers if possible. Otherwise, student notebooks can be used.
- Have each group create a visual on chart paper that represents the journey of the speaker in the poem. They can include different treasures (crown, fame, gold, freedom, peace) and show how the speaker moves from searching for material wealth to discovering the true treasure of freedom and peace.
- After the groups finish, have a small gallery walk where groups can present their artwork and explain what it means.

Activity 2 Phrases

35 mins

Instructions

- Have a discussion with students on phrases. You can refer to the notes below.

Teacher's Notes

A **phrase** is a group of words that works together to convey a meaning but does not form a complete sentence. It lacks both a subject and a verb.

Type of Phrase	Description	Example	Example in a Sentence
Noun Phrase	Contains a noun and its modifiers	“the red ball”	The old car is parked outside.
Verb Phrase	Contains a verb and its helping verbs.	"Has been running"	She has been reading all morning.
Adjective Phrase	Contains an adjective and its modifiers	“Very tall”	The soup is extremely hot.
Adverb Phrase	Contains an adverb and its modifiers.	“quite quickly”	She ran very fast.
Prepositional Phrase	Begins with a preposition and ends with a noun or pronoun.	“Under the table”	He is sitting on the chair.

Guidelines for Using Phrases

Clarity: Ensure the phrase adds clear meaning without overcomplicating sentences.

Correct Placement: Place phrases close to the word they modify.

Avoid Sentence Fragments: Phrases should be part of a complete sentence.

Vary Usage: Don’t overuse the same phrase repeatedly.

- Divide the class into 4 groups.
- Assign each group 1 set of jumbled-up phrases. A sample set is given below:

  Sample Set:

  "building", "tall", "a"

  "very", "fast", "running"

  "grass", "on", "the", "soft"

  "old", "the", "man"

  "bank", "river", "the", "by", "the"
- Each group should create a meaningful phrase and use it in a sentence for each set of jumbled up words.
- After completing the sentence, the group will identify the types of phrase.
- Once all groups have completed the task, ask the class to share their sentences and discuss the types of phrases used.

Activity 3 Speaking and Paragraph Writing

35 mins

Instructions

- Tell the class that in groups, they will be writing a paragraph on the topic: True Source of Happiness.
- Tell them that they can use the following clues in their paragraph:

Clues:

Wealth; Fame; Family time; Peaceful walks in Nature; Helping others; Reading books; Cultural Traditions; Community service; Good food and family time; Time with pets; Learning new skills; Dancing with loved ones; Sunsets over the hills; Helping elderly neighbours; Exploring waterfalls; Singing traditional songs; Gardening and growing your own food; Caring for wildlife

- Discuss on the paragraph structure as below:
  - *Introduction:* Start your paragraph by introducing the idea of true happiness.
  - *Body (explaining chosen clues):* Introduce each item you selected, then explain how it contributes to happiness. Use examples. Be clear: Don't just mention the item, explain its importance in finding happiness.
  - *Conclusion:* End your paragraph by summarising your thoughts on what constitutes true happiness.
- Divide the class into groups of 4-5 students. Each group will write a paragraph on the topic **"True Source of Happiness"** based on their chosen clues. Each group can choose items above and explain how these items might contribute to happiness.
- Groups will share their paragraphs with the class.
- Then, a discussion can be held on how different perspectives contribute to the idea of true happiness.
- The class can also decide which group wrote the best paragraph.

UNIT: 4 Assessment

35 mins

Section A (Literature)

Choose the correct answer from the given options-

1. What caused Bepin Choudhary to doubt his memory?
   a) A strange man who claimed to know him.
   b) A letter from his old friend.
   c) A family member's suggestion.
   d) A visit to a doctor.
2. What did Bepin Choudhary do after the stranger's insistence?
   a) He ignored the stranger completely.
   b) He went to see a doctor to check his memory.
   c) He decided to visit his old school.
   d) He became angry and shouted at the stranger.
3. Which offer does the speaker reject first in the poem?
   a) The offer of gold
   b) The offer of power
   c) The offer of service
   d) The offer of love
4. What does the speaker finally choose in the poem?
   a) Power and wealth
   b) Labour and service
   c) Love and affection
   d) Freedom and peace

Answer the following questions-

5. What does the letter from Chunni reveal about the situation?

_____
_____
_____
_____

6. What kind of offers does the speaker reject in the poem "The Last Bargain"?

_____
_____
_____

7. Explain how the prank made Bepin Choudhary question his own memory.

_____
_____
_____
_____
_____
_____
_____
_____
_____

8. Explain the significance of the "last bargain" in the poem. What does the speaker learn from his experiences?

_____
_____
_____
_____
_____
_____
_____
_____
_____

Section B (Grammar)

Match the idiom on the left with its correct meaning on the right.

Idioms	Meaning
1. **A piece of cake**	A) To complain about something that cannot be changed
2. **Under the weather**	B) Very easy to do
3. **Burning the midnight oil**	C) To be ill or unwell
4. **Cry over spilt milk**	D) To work very late into the night
5. **The ball is in your court**	E) It's now your responsibility to take action

Choose the correct phrase from the options below and fill in the blanks.

Phrases:

at the end of the day
for the time being
in the long run
on the other hand
in the meantime

Sentences:

a. I am not sure about the decision, but _____, I will go with it.
b. The exam was difficult, but _____, I believe it will help me in the future.
c. He loves playing football, but _____, he enjoys reading more.
d. The meeting has been delayed. _____, let's wait in the waiting area.
e. _____, what matters most is that we gave it our best shot."

Section C (Writing)

Write a paragraph on the topic "The Hidden Path and the Forgotten Treasure". You can use the following points as clues, which are jumbled up:

gold coins, compass

hills region, narrow paths

old doorway, leading to a quiet place

compass still in your pocket

heavy wooden box

finding a forgotten treasure? or did the hills choose to show you something others weren't meant to see?

entrance seems to vanish

UNIT: 4 Answer Key

Section A (Literature)

1. a)
2. b)
3. b)
4. d)
5. The letter from Chunni reveals that the entire situation, including the memory lapse about the Ranchi trip, was a prank. Chunni explains that he had fabricated the whole story to make Bepin doubt his memory.
6. The speaker rejects material and worldly offers as he realises they do not lead to true happiness or freedom.
7. The prank about the Ranchi trip made Bepin Choudhary question his own recollection of past events. Bepin, a man who prided himself on having a sharp memory, found himself unable to remember the trip, which caused him to doubt his mental faculties. As the stranger continued to insist on the details of the trip, Bepin became increasingly worried that he was suffering from a serious memory lapse or mental disorder. Then there were other people who made it feel like the Ranchi trip had actually happened but Bepin did not remember it. This anxiety led him to visit a doctor to check if he was developing a memory problem. The prank manipulated Bepin's fear of losing control over his mind, leading him to believe in something that was not true.
8. The "last bargain" in the poem represents the speaker's realisation that true happiness and fulfilment cannot be bought with gold, power, or status. Throughout the poem, the speaker is offered various things—wealth, power, and service—but he refuses them all. He learns that none of these can bring him lasting contentment. In the end, he chooses the final bargain of freedom and peace, symbolised by the child' play. This reflects the idea that true happiness comes from inner freedom, not material possessions or external power. The poem emphasises the importance of personal peace and liberation over worldly success.

Section B (Grammar)

Idioms:

1. **A piece of cake** B) Very easy to do
2. **Under the weather** C) To be ill or unwell
3. **Burning the midnight oil** D) To work very late into the night
4. **Cry over spilt milk** A) To complain about something that cannot be changed
5. **The ball is in your court** E) It's now your responsibility to take action

Phrases:

a. I am not sure about the decision, but **for the time being**, I will go with it.
b. The exam was difficult, but **in the long run**, I believe it will help me in the future.
c. He loves playing football, but **on the other hand**, he enjoys reading more.
d. The meeting has been delayed. **In the meantime**, let's wait in the waiting area.
e. **At the end of the day**, what matters most is that we gave it our best shot.

Section C (Writing)

Since creative writing tasks are subjective in nature, the answers will vary from student to student. Some aspects to consider while evaluating paragraph writing are:

- Is the content relevant to the given prompt or theme?
- Does the paragraph have a clear beginning, middle, and end?
- Are the sentences complete and grammatically correct?
- Does the paragraph avoid excessive repetition?
- Does the student use a range of vocabulary instead of repeating the same words?
- Are common words spelled correctly?
- Is proper punctuation used (capital letters, commas, periods, etc.)?
- Is the paragraph coherent?

Learning Level Tracker

Keep a record of unit assessment results in the tracker.

As you conduct assessments based on the activities suggested, put a tick mark as per the following:

Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: English		
Roll No.	Name of the Student	Unit: 4		
		Chapter:	1. Bepin Choudhury's Lapse of Memory	
			2. The Last Bargain	
		Level 1	Level 2	Level 3

UNIT : 5

Chapter : The Summit Within

Activity 1 The Courage to Follow One's Dreams

35 mins

Instructions

- Divide the class into groups of 4-5 students each.
- Write the following passage on the board or distribute its printouts to the groups.
- Ask the groups to read the passage and discuss it among themselves.

The Courage to Follow One's Dreams

Having the courage to follow your dreams means being willing to face challenges, take risks, and overcome doubts, even when the journey feels difficult. It's about believing in yourself and not giving up, no matter how many obstacles stand in your way.

Imagine a student who dreams of becoming a professional footballer. Despite facing fierce competition and the risk of injury, they train every day, pushing their body to its limits. They work hard to improve their skills, even when they don't make the school team at first. Though their friends might choose easier paths or suggest they should focus on other subjects, this student continues to follow their dream because they have the courage to believe in their talent and keep striving for success.

Similarly, consider a young girl who dreams of becoming a doctor. She faces long hours of study, sacrifices her free time, and must push through moments of exhaustion. There are times when she questions if she's making the right choice, especially when faced with difficult exams. But she stays focused on her dream of helping people and saving lives. The courage to continue, even in the face of challenges, is what keeps her moving forward.

Lastly, think about someone who dreams of starting their own business. At first, they have little money and few resources. They face many setbacks—failed attempts, the discouragement of others, and the stress of running a business. However, the courage to keep trying, to learn from their mistakes, and to keep improving their ideas eventually leads to the growth of their business. They may not see immediate success, but their persistence and bravery in following their dream lay the foundation for eventual achievement.

In all of these examples, the courage to follow their dreams comes from a belief in the value of their goals and the strength to keep going, no matter the challenges. It's not just about achieving success, but about having the resilience and determination to pursue what you truly desire, no matter how hard it might seem.

- Ask the groups to write answers to the following questions:
  - Why is it important to have courage to follow your dreams?
  - What are some challenges that the student, the girl, and the person starting a business face in the passage?
- Further, ask groups to reflect on and answer the following questions:
  - What are some common dreams that children have and how can they stay motivated to keep going to fulfil them?

- Can you think of a personal example or someone you know who had the courage to follow their dream? *The group should include all real examples coming from students.*

- Each group can then take turns to share answers with the class.

Activity 2 Word Class Conversion

35 mins

Instructions

- Explain the concept of Word Class Conversion through the notes below.

Teacher's Notes

Word class conversion refers to the process of changing a word from one word class (such as a noun, verb, adjective, or adverb) to another without changing its form. This means a word can shift from one grammatical category to another based on how it is used in a sentence. Word class conversion helps us use words more flexibly and expressively in different contexts.

Noun to Verb: Changing a noun (a person, place, thing, or idea) into a verb (an action or state).
Example: Noun: Decision → Verb: Decide

Verb to Noun: Changing a verb (an action or state) into a noun (a person, place, thing, or idea).
Example: Verb: Perform → Noun: Performance

Noun to Adjective: Changing a noun (person, place, thing, or idea) into an adjective (a word that describes or modifies a noun). *Example:* Noun: Beauty → Adjective: Beautiful

Adjective to Noun: Changing an adjective (a word that describes a noun) into a noun (person, place, thing, or idea). *Example:* Adjective: Happy → Noun: Happiness

Adjective to Adverb: Changing an adjective (a word that describes a noun) into an adverb (a word that describes or modifies a verb, adjective, or another adverb). *Example:* Adjective: Quick → Adverb: Quickly

Noun to Adverb: Changing a noun (person, place, thing, or idea) into an adverb (a word that describes a verb, adjective, or another adverb). *Example:* Noun: Beauty → Adverb: Beautifully

- Draw a table on the board with the first row having a column each for: **Base Word, Noun, Verb, Adjective, Adverb**
- Divide the class into 4 teams and form a line for each team. The first person from each team will be the one who writes first.
- Call out a base word (e.g., *"act"*). The first student from team 1 will run to the board and will fill out the first column for the base word. The first student from team 2 will fill out the second column, and so on. Students return to their teams once they finish the word.
- Check the answers and award 1 point for each correct word class form, and a bonus point can be awarded for speed or correct spelling.
- The next team member comes up, and a new word is given. This time, team 2 gets to fill out the first column, team 3 fills out second column and so on.
- Continue until all team members have had a turn or for a set number of rounds. Each team should get a chance to fill out nouns, verbs, adjectives, and adverbs.

Suggested Word List for the Relay

Base Word	Noun	Verb	Adjective	Adverb
Act	Action, actor	act	active	actively
Create	creation, creator	create	creative	creatively
Beauty	beauty	beautify	beautiful	beautifully
Decide	decision, decider	decide	decisive	decisively
Power	power	empower	powerful	powerfully
Help	help, helper	help	helpful, helpless	helpfully
Danger	danger	endanger	dangerous	dangerously
Care	care	care	careful, careless	carefully
Quick	quickness	quicken	quick	quickly
Success	success	succeed	successful	successfully
Music	music	—	musical	musically
Thought	thought	think	thoughtful	thoughtfully
Hope	hope	hope	hopeful, hopeless	hopefully
Friend	friendship	befriend	friendly	—
Joy	joy	enjoy	joyful	joyfully
Strength	strength	strengthen	strong	strongly

Note: Some base words may not have a form for every category.

Activity 3 Paragraph Writing

35 mins

Instructions

- Have a discussion with the class on the topic of pollution and the need for waste management. You can refer to the notes below.

Growth in Population and Development:

- Increasing population and urbanisation
- Impact of development projects on the environment

Environmental Impact:

- Natural beauty and natural landscapes threatened by pollution (e.g., rivers, forests, hills).
- Dangers of plastic waste and other litter

Rivers and Water Pollution:

- Rivers being polluted by waste
- Importance of clean water sources for daily life and agriculture

Responsible Waste Management Practices: importance of proper waste disposal, recycling, and reducing plastic usage

Community Involvement: role of local communities in organising clean-up drives and reducing litter

Long-term Impact:

- Need for sustainable practices to ensure the environment remains healthy for future generations
- Small actions, like reducing plastic use or planting trees, can have a large impact on the environment.

- Divide the class into equal teams of 4-6 students, depending on the class size.
- Explain to the groups that they will write a paragraph on the topic – Waste Management and Reducing Pollution.
- Provide the following instructions for the activity:
  - The first sentence of the paragraph will be provided to each team. For example:
    "Meghalaya's natural beauty is threatened by increasing pollution."
  - The first student must add a sentence that follows logically from the initial sentence. After writing their sentence, they pass the paper to the next student on their team.
  - Each student continues adding one sentence to the paragraph until it is complete.
- Explain the guidelines for paragraph-writing:
  - Maintain coherence and logical flow.
  - Use appropriate linking words (e.g., therefore, however, in addition, for example) to connect sentences.
  - Make sure the paragraph has a clear beginning, middle, and end.

Chapter : The School Boy

Activity 1 Learning with Joy

35 mins

Instructions

- Divide the class into 3 groups.
- Write the following passage on the board or distribute its printouts to the groups. Ask the groups to read the passage and discuss it among themselves.

Learning with Joy

I love to learn beneath the sky,
Where birds above go flying by.
The trees, the breeze, the buzzing bee—
They teach with calm and honesty.

But in the classroom, bright and fair,
A kindly teacher's always there.
With gentle voice and patient smile,
They make the hardest task worthwhile.

They guide us through each book and chart,
And light the lamp inside the heart.
They let us ask, they let us try,
They help our questions learn to fly.

They do not chain our thoughts or dreams,
But shape them like the flowing streams.
They take us out to touch the air,
And show us learning everywhere.

So whether roof or sky above,
We learn with joy, and hope, and love.
For nature, books, and teachers too,
All help to shape the things we do.

- Ask the groups to write the answers to the questions below and share their answers:
  - Name two things from nature that teach the speaker something.
  - How does the teacher support the students, according to the poem?
  - What does the speaker mean by "They light the lamp inside the heart"?
  - How does the poet describe the connection between nature and learning?
- To tie the discussion together, have a class discussion on: How does making learning joyful help you remember better?

Activity 2 Tenses

35 mins

Instructions

- Explain tenses and the transformation of tenses to the class. You can refer to the notes below.

Teacher's Notes

Tenses show the **time** of an action or event. They help us understand **when** something happens — in the **past, present,** or **future**.

There are three main types of tenses:

Present Tense	Things happening now	*I read a book.*
Past Tense	Things that happened before	*I read a book yesterday.*
Future Tense	Things that will happen	*I will read a book tomorrow.*

Each tense has different forms (simple, continuous, perfect, perfect continuous) to show the exact timing or nature of the action.

Guidelines for Transformation of Tenses: The transformation of tenses means changing a sentence from one tense to another (usually while keeping the meaning or sequence of time).

Here are some basic rules and examples:

Present to Past

Simple Present → Simple Past	*He plays football. → He played football.*
Present Continuous → Past Continuous	*She is singing. → She was singing.*
Present Perfect → Past Perfect	*I have finished my work. → I had finished my work.*

Past to Present

Simple Past → Simple Present	*They watched a film. → They watch a film.*
Past Continuous → Present Continuous	*We were reading. → We are reading.*

Future to Present/Past

Simple Future → Simple Present (for instructions/routines)	*I will go to school. → I go to school.*
Simple Future → Simple Past (in reported speech)	*She said, "I will come." → She said that she would come.*

Tips for Tenses:

Look at the main verb to identify the tense.

When changing tenses, also adjust time expressions:

Today → That day

Tomorrow → The next day

Yesterday → The day before

In reported speech, tenses usually shift one step back:

Present → Past, Past → Past Perfect, Will → Would

- Divide the class into 5 groups. Provide 1 story to each group. Some samples are given below:

  Sample 1: A Rainy Day in Shillong

  Every afternoon, dark clouds gather above the hills. The wind blows gently and the rain starts to fall. The streets of Shillong become shiny and wet. Children run to the windows and watch the raindrops. Some people open their umbrellas and walk carefully on the slippery paths.

  Sample 2: School Picnic to Umiam Lake

  Our class goes to Umiam Lake for a picnic. We carry snacks, water bottles, and a speaker. The teacher tells us to stay together. We play games, sing songs, and take many photos. At lunch, we sit on the grass and share our food.
- Ask the groups to read the story carefully together. Make sure everyone understands it.
- The groups should identify the verbs in the present tense. Remind them that These are the words that show action (e.g. walk, eat, go).
- The groups will rewrite the story in the past or future tense. You can decide which groups will write in past tense and which groups will write in future tense.
- Then, the groups will present their stories to the class.

Activity 3 Paragraph Writing

35 mins

Instructions

- Tell the class that they will be writing a paragraph in groups. The topic for the paragraph is: An Ideal School Day.
- Write the clues on the board and have a discussion on the same.

  Writing Clues / Prompts:

  Start with a joyful beginning: What time does the ideal school day start? Is it inside a classroom, outdoors, or somewhere else?

  Creative subjects and learning: Which subjects do you learn? Do you explore music, art, nature, or experiments? How are these subjects taught in a fun way?

  Teachers and teaching style: What is your teacher like? Do they tell stories, use games, or let you ask lots of questions?

  Activities that excite you: Do you go outside, do group work, play educational games, or do projects? What makes learning feel like an adventure?

  How the day ends: Do you reflect on what you learned? Do you go home happy and inspired?

- Next, explain the guidelines for paragraph-writing:
  - Maintain coherence and logical flow.
  - Use appropriate linking words (e.g., therefore, however, in addition, for example) to connect sentences.
  - Make sure the paragraph has a clear beginning, middle, and end.
- Divide the class into groups with 4-5 students.
- Each group should collectively write a paragraph on the assigned topics. Then, the groups can present their work to the class.

UNIT: 5 Assessment

35 mins

Section A (Literature)

Choose the correct answer from the given options-

1. According to the author, the climb to the summit is a symbol of:
   a) Physical strength
   b) Money and fame
   c) Human curiosity and the spirit of adventure
   d) A holiday
2. What does the "internal summit" refer to in the chapter?
   a) Another mountain
   b) Winning a competition
   c) Climbing inside a cave
   d) Exploring one's own mind and overcoming fears
3. In the poem, why does the boy dislike going to school?
   a) He is afraid of his classmates
   b) He feels it takes away his freedom and joy
   c) He finds school too easy
   d) He prefers staying at home all day
4. The poet compares a child in strict schooling to:
   a) A bird flying high
   b) A flower in full bloom
   c) A plant stuck in a dark room
   d) A bird in a cage

Answer the following questions-

5. Why did the author climb Mount Everest?

   _____
   _____
   _____
   _____

6. How did the author feel after reaching the top of Mount Everest?

   _____
   _____
   _____
   _____

7. Why does the boy prefer staying outdoors in the summer morning?

   _____
   _____
   _____
   _____

8. What effect does forced learning have on a child, according to the poem?

_____
_____
_____

9. Describe how the physical act of climbing Mount Everest relates to the inner journey of self-discovery, as explained by the author.

_____
_____
_____
_____
_____
_____
_____
_____

10. What message does William Blake give through the poem The School Boy?

_____
_____
_____
_____
_____
_____
_____

Section B (Grammar)

In each sentence, change the word in brackets to the correct form as required by the sentence.

1. The child made a very (create) _____ drawing in art class. *(adjective form of "create")*
2. She spoke with great (kind) _____ to the lost puppy. *(noun form of "kind")*
3. They decided to (beauty) _____ the room with flowers and lights. *(verb form of "beautiful")*
4. He ran so (quick) _____ that nobody could catch him. *(adverb form of "quick")*
5. Her (decide) _____ helped the team win the match. *(noun form of "decide")*

Change the tenses in the following sentences as per the instructions.

6. She writes a letter to her grandmother. *(Change to past tense)*

_____
_____

7. They played football in the evening. *(Change to present tense)*

_____
_____

8. I am reading a storybook. *(Change to future tense)*

_____
_____

9. We will go to the museum tomorrow. *(Change to past tense)*

_____
_____

10. He has finished his homework. *(Change to past perfect tense)*

_____
_____

Section C (Writing)

Write a paragraph on the topic: **A Memorable Day in My Life**. Take an example from your life. Mention the day and narrate the incident that made the day memorable.

Key points to consider:

- Describe the day and why it was memorable.
- What happened on that day (special event, achievement, or personal experience).
- The people involved in the day's events.
- How you felt during the event.
- What you learned from that experience.

UNIT: 5 Answer Key

Section A (Literature)

1. c)
2. d)
3. b)
4. d)
5. The author climbed Mount Everest because of his love for adventure, the desire to overcome challenges, and the joy of reaching great heights. It also symbolised testing his own strength, both physical and mental.
6. The author felt a deep sense of humility, satisfaction, and spiritual peace. He realised that such a great achievement made him feel small in front of nature's greatness.
7. The boy enjoys the singing of birds, the company of the tree, and the beauty of nature. He finds peace and happiness outside, which makes him dislike the dull and strict environment of the classroom.
8. According to the poem, forced learning makes the child unhappy and steals the joy of discovery. It dulls his creativity and curiosity, just like a bird in a cage that cannot sing or fly.
9. In "The Summit Within," the author Major Ahluwalia explains that climbing Mount Everest is not only a physical adventure but also a journey of the mind. Reaching the summit symbolises overcoming difficulties and discovering one's inner strength. Just as a climber faces steep slopes and harsh conditions, individuals must also face fears, doubts, and challenges within themselves. By completing the climb, the author feels he has also achieved a mental victory. This comparison shows that both the physical and internal journeys require courage, determination, and resilience.
10. William Blake's poem The School Boy shares the message that children learn best in a free and joyful environment. The poet compares strict schooling to trapping a bird in a cage, where the child loses all happiness and curiosity. He believes that nature is the best teacher, as it inspires wonder and imagination. By forcing children to learn in a rigid system, we damage their natural growth. The poem urges us to rethink education and make learning more creative, free, and connected to the world around us.

Section B (Grammar)

Word Phrases:

1. The child made a very **creative** drawing in art class.
2. She spoke with great **kindness** to the lost puppy.
3. They decided to **beautify** the room with flowers and lights.
4. He ran so **quickly** that nobody could catch him.
5. Her **decision** helped the team win the match.

Tenses:

6. She wrote a letter to her grandmother.
7. They play football in the evening.
8. I will read a storybook.
9. We went to the museum tomorrow. *(Corrected for time – "tomorrow" becomes "yesterday")* → We went to the museum yesterday.
10. He had finished his homework.

Section C (Writing)

Since creative writing tasks are subjective in nature, the answers will vary from student to student. Some aspects to consider while evaluating paragraph writing are:

- Start with a topic sentence: Clearly state what the paragraph is about.
- Use supporting sentences: Add 2–4 sentences with details, examples, or explanations.
- Stay on one idea: Don't mix too many topics in one paragraph.
- Use correct tense and grammar: Keep the same tense (present, past, or future) throughout.
- End with a closing sentence: Wrap up your idea or give a final thought.
- Keep it clear and neat: Use simple, correct language and proper punctuation.

Learning Level Tracker

Keep a record of unit assessment results in the tracker.

As you conduct assessments based on the activities suggested, put a tick mark as per the following:

Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: English		
Roll No.	Name of the Student	Unit: 5		
		Chapter:	1. The Summit Within	
			2. The School Boy	
		Level 1	Level 2	Level 3

UNIT : 6

Chapter : This is Jody's Fawn

Activity 1 Apu and the Clouded Leopard Cub

35 mins

Instructions

- Write the following passage on the board or distribute its printouts to the students.
- Ask the students to read the passage.

Apu and the Clouded Leopard Cub

In the misty village of Lumsohphoh, nestled in the green hills of Meghalaya, lived a kind-hearted boy named Apu. His father was a skilled herbalist who often ventured into the forests to collect rare plants and roots.

One stormy night, Apu's father returned home bruised and bleeding. He had been attacked by a wild animal, but in self-defence, he had struck it down. The villagers later discovered that it was a clouded leopard, a rare and shy animal found in the hills.

The next morning, Apu couldn't stop thinking about the animal. A feeling of guilt and sorrow grew in his heart. "What if it had a cub?" he wondered.

With his father's cautious permission, Apu went into the forest, following the trail from the night before. After hours of searching, hidden in a hollow under a rock, he found a tiny cub, trembling and alone.

Apu gently wrapped the cub in his shawl and brought it home. At first, the villagers were afraid, but Apu explained, "We took its mother's life. It's only right we protect the baby."

Under Apu's care, the cub grew strong. He fed it warm milk, kept it safe, and named it Sohra, after the nearby town. Sohra followed Apu everywhere — through the fields, to school, even to the waterfall where he played.

As the months passed, Apu knew he couldn't keep Sohra forever. The cub belonged to the wild. With a heavy heart, he took Sohra deep into the forest one last time and watched as it vanished into the trees.

Though he missed Sohra dearly, Apu felt proud. He had done the right thing — showing that kindness and responsibility towards nature begin with small actions.

- Divide the class into pairs.
- Provide the following questions to each pair and ask them to discuss and answer the questions in writing. If anyone is facing any challenges, help them understand the story.

Questions:

- Who is a herbalist?
- What does 'trembling' mean?
- Who said: "What if it had a cub?"
- Who said: "We took its mother's life. It's only right we protect the baby."
- Who described: "He had been attacked by a wild animal..."
- Apu lived in a village called _____.
- One _____ night, Apu's father came back injured.
- Apu named the cub _____.
- He fed the cub warm _____ every day.
- Apu's father was a schoolteacher. (True/False)
- Apu found the cub under a tree. (True/False)
- The villagers were afraid of the cub at first. (True/False)
- The story is set in the desert. (True/False)

- Then have a few pairs volunteer to share their work with the class. Any doubts the class has should also be cleared.

Activity 2 Transitive and Intransitive Verb

35 mins

Instructions

- Explain "Transitive and Intransitive Verb" to the class. You can refer to the notes below.

Teacher's Notes

A **transitive** verb needs an object to make sense in the sentence. For example, "She kicked the ball." Here, "kicked" is a transitive verb, and "the ball" is the direct object that receives the action.

Examples of Transitive Verbs:

- Eat (I **ate** an apple.)
- Write (She **wrote** a letter.)
- Buy (They **bought** a new car.)
- Read (He **read** the book.)

An **intransitive** verb does not need an object in the sentence. For example, "She laughed loudly." Here, "laughed" is an intransitive verb, and there is no direct object receiving the action.

Examples of Intransitive Verbs:

- Sleep (He **slept** soundly.)
- Run (They **ran** every morning.)
- Arrive (We **arrived** late.)
- Sit (She **sat** on the bench.)

- Divide the class into groups of 4-5 students.
- Provide around 4-6 verbs to each group. You may use the verbs below or create your own list.

paint	jump	throw	sleep	bake	run
carry	cry	read	swim	bring	laugh
open	sneeze	fix	arrive	watch	travel
eat	fall	clean	grow	write	sit
break	go	catch	stay	lift	come
hold	shout	draw	disappear	climb	rest
wash	lie	close	stand		

- After discussing, the groups will classify the verbs provided as “transitive” or “intransitive”. They should also construct a sentence using each verb. All this should be done in writing.
- After the activity, the groups will share their work with the class. Any doubts of students will be clarified regarding the topic.

Activity 3 Story Writing

35 mins

Instructions

- Begin the activity with a discussion on the basic guidelines for writing a story. You can refer to the notes below.

Teacher's Notes

Structure your story

- Introduction: Set the time and place. Introduce the main character with a short background. Start with action or something interesting.
- Build the Plot: Show the problem or challenge the character faces.
- Climax: The most intense part where the character faces their biggest test or makes a key choice.
- Conclusion: Wrap up the story and show what the character learns.

Develop Characters and Dialogue

- Make characters relatable and give them a clear goal or problem.
- Use dialogue to show their personality and move the story forward.

Use Descriptive Language

- Describe what the character sees, hears, feels, smells, or tastes.
- This helps the reader picture the scene and feel involved.

Stay Consistent

- Pick a point of view (first person or third person) and tense (past or present).
- Stick to it throughout the story.

Focus on Conflict and Resolution

- Good stories have problems or struggles.
- The conflict can be with others or within the character.

Stay Relevant: Keep the story focused on the topic or situation given.

Proofread and Edit: Check for grammar, punctuation, and sentence clarity.

Be Creative and Original: Add a twist or surprise to make the story unique and let your voice and style shine through.

- Tell the class that they will be writing a story in groups. The topic for the story is **"The Dog with the Red Ribbon"**
- Tell the class that the setting of the story is the following: *In the town of Shillong, a quiet boy named Tansen discovers a stray dog being chased away by shopkeepers at the market. Instead of ignoring it like the others, he offers it food and ties a red ribbon around its neck.*
- Ask students to write the story and share it with the whole class.

UNIT: 6 Assessment

35 mins

Section A (Literature)

Choose the correct answer from the given options-

1. What was used to draw out the poison from Jody's father's wound?
   a) A snake stone
   b) A herbal paste
   c) The heart and liver of a doe
   d) Antivenom injection
2. Why did Jody want to look after the fawn?
   a) He wanted a new pet
   b) He was feeling guilty
   c) He felt it was his responsibility after killing its mother
   d) He wanted to show it to his friends
3. How did Jody find the fawn in the forest?
   a) He followed its footprints
   b) He followed buzzards
   c) He heard it crying
   d) He found it by chance
4. What does the story mainly teach us?
   a) Hunting is fun
   b) Animals can be dangerous
   c) Children should go into the forest
   d) We should be kind and responsible towards animals

Answer the following questions-

5. How did Jody convince his parents to let him go into the forest?

   _____
   _____
   _____

6. What challenges did Jody face while finding and bringing the fawn home?

   _____
   _____
   _____

7. How does *"This is Jody's Fawn"* help us understand the importance of kindness, especially towards animals that cannot speak for themselves?

   _____
   _____
   _____
   _____
   _____
   _____

Section B (Grammar)

Highlight the verbs in the following sentences and mention if they are Transitive or Intransitive.

1. She carried the basket up the hill.
2. The baby slept peacefully through the night.
3. They built a treehouse in the garden.
4. We arrived early for the show.
5. He kicked the ball into the net.

Section C (Writing)

- **Write a story about a character who experiences a significant change.** The change can be anything—a new home, a new school, a new hobby, or a personal challenge. Describe how the character feels before the change, during the change, and after the change.

  Example of change: A young girl moves to a new city and experiences the challenges and excitement of starting over.
- Make sure that your story has:
  - A clear beginning (introduction to the character and the change they are facing).
  - A detailed middle (describing the character's experiences during the change).
  - A well-developed end (the resolution or what happens after the change).

UNIT: 6 Answer Key

Section A (Literature)

1. c)
2. c)
3. b)
4. d)
5. Jody respectfully explained to his parents that since they had taken the fawn's mother's life, they should not let the fawn die. His strong sense of morality and responsibility convinced them.
6. Jody had to walk through thick forest and keep a careful eye out for signs of the fawn. He found it frightened and weak. Carrying it home was tiring, but he managed with patience and care.
7. The story helps us see that animals, though they cannot speak like humans, have feelings and needs just the same. Jody understands that the fawn cannot survive on its own, and that it is suffering silently after losing its mother. By choosing to help the fawn, Jody shows that kindness is not limited to people—it extends to all living beings. His gentle care, empathy, and sense of fairness show that animals deserve compassion, especially because they cannot ask for help. The story encourages readers to be sensitive and aware of how their actions affect the world around them, and to always act with kindness and responsibility towards creatures who depend on us.

Section B (Grammar)

1. She ***carried*** the basket up the hill. ***(transitive)***
2. The baby ***slept*** peacefully through the night. ***(intransitive)***
3. They ***built*** a treehouse in the garden. ***(transitive)***
4. We ***arrived*** early for the show. ***(intransitive)***
5. He ***kicked*** the ball into the net. ***(transitive)***

Section C (Writing)

Since creative writing tasks are subjective in nature, the answers will vary from student to student. Some aspects to consider while evaluating story writing are:

- The plot is the sequence of events that make up the story. It includes an introduction, rising action, climax, falling action, and conclusion.
- Characters are the people or beings that drive the story forward.
- The setting is where and when the story takes place.
- The conflict is the central problem or challenge the characters face.
- The theme is the central idea or message the story conveys.
- The point of view is the perspective from which the story is told.
- Dialogue is the conversation between characters.
- Style and Language - the way the story is written affects its tone and impact.
- Pacing refers to how quickly or slowly the events unfold in the story.
- Often, stories have a deeper moral or lesson for the reader.

Learning Level Tracker

Keep a record of unit assessment results in the tracker.

As you conduct assessments based on the activities suggested, put a tick mark as per the following:

Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: English		
Roll No.	Name of the Student	Unit: 6		
		Chapter: This is Jody's Fawn		
		Level 1	Level 2	Level 3

Meghalaya Learning Enhancement Programme

MATHS

Chapter 1 : Rational Numbers

Activity 1 Rational or not Rational

35 mins

Instructions

- Begin by inviting a few students to the board, one by one, to demonstrate all four operations—addition, subtraction, multiplication, and division—on rational numbers.
- Next, ask students to pick any two rational numbers of their choice. For example, $-\frac{5}{6}$ and $\frac{2}{3}$
  Instruct them to perform the same four operations now and write the results in their notebooks.
- Ask students to share their results and confirm if all results are rational numbers.
- Next, ask the students what happens when the second number is 0.
- Have them perform the same four operations using 0 as the second number. (Rational numbers are not closed for division when dividing by 0)
- Conclude the class by consolidating the operations on rational numbers and emphasising that rational numbers are not closed under division when dividing by zero.

Activity 2 Exploring Commutativity and Associativity of Rational Numbers

35 mins

Instructions

- Begin by explaining commutativity and associativity to the students.
- Write on the board:
  - If $a*b = b*a$ it is commutative. ($*$ can be any of the four operations)
  - If $a*b \neq b*a$, it is non-commutative.
  - If $a*(b*c) = (a*b)*c$, then it follows associativity
  - If $a*(b*c) \neq (a*b)*c$, it is non-associative
- Next, ask students to take any two rational numbers and perform all four operations to find out for which operations they are commutative and for which operations they are non-commutative.
- Conclude this exercise by consolidating the commutative property of Rational Numbers
- Next, ask students to choose any three rational numbers and check for associativity in all four operations.
- Discuss the associative property of rational numbers, guiding students to analyse their results.
- Wrap up the activity by emphasising that addition and multiplication are both commutative and associative, while subtraction and division do not always follow these properties.

Activity 3 Exploring distributivity in Rational Numbers

35 mins

Instructions

- Begin by explaining distributivity to the class.
- Write on the board:
  - $a \times (b+c) = a \times b + a \times c$
  - $a \times (b-c) = a \times b - a \times c$
- Next, ask students to choose any three rational numbers and perform the above operations to verify whether they obtain the same result in both cases.
- Encourage students to take positive and negative rational numbers
- Direct students to observe that multiplication distributes over both addition and subtraction for all rational numbers.
- Finally, divide the students into pairs and ask them to tabulate the properties of rational numbers in the following format.

	Addition	Subtraction	Multiplication	Division
Closure	Yes			
Commutative				
Associative				
Distributive				

Assessment

35 mins

Rational Numbers

1. Which of the following is a rational number?
   a) $\sqrt{2}$
   b) π
   c) 4/5
   d) $\sqrt{3}$
2. Which of the following is not a property of rational numbers?
   a) Closure under addition
   b) Commutative property under multiplication
   c) Distributive property of multiplication over addition and multiplication
   d) Closure under division
3. Subtract the following rational numbers and simplify the result:
   a) $\frac{5}{7} - \frac{3}{14}$
   b) $-\frac{6}{11} - \frac{2}{11}$
4. Multiply the following rational numbers and simplify:
   a) $\frac{4}{5} \times \frac{-3}{7}$
   b) $-\frac{2}{3} \times -\frac{-9}{11}$
5. Divide the following rational numbers and simplify:
   a) $\frac{3}{8} \div \frac{5}{6}$
   b) $\frac{-7}{5} \div \frac{-2}{3}$
6. Identify the property under multiplication used in each of the following:
   a) $\frac{-4}{5} x\ -1 = \frac{-4}{5}$
   b) $\frac{-13}{7} x\ \frac{2}{7} = \frac{2}{7} x\ \frac{-13}{7}$
7. Identify the property that allows you to compute the following expression in this way:

$$\left(\frac{1}{3} x\ \frac{6}{4}\right) x \left(\frac{3}{1} \times \frac{3}{6}\right) as\ \frac{1}{3} x \left(\frac{6}{4} x\ \frac{1}{3} x\ \frac{3}{6}\right)$$

Answer Key

1. c) 4/5 is a rational number (p/q form)
2. d) Closure under division (Rational numbers are not closed under division because dividing by zero is undefined.)
3. Subtraction of Rational Numbers:
   a) $\frac{5}{7} - \frac{3}{14} = \frac{10}{14} - \frac{3}{14} = \frac{7}{14} = \frac{1}{2}$
   b) $\frac{-6}{11} - \frac{2}{11} = \frac{-8}{11}$
4. Multiplication of Rational Numbers
   a) $\frac{4}{5} \times \frac{-3}{7} = \frac{-12}{35}$
   b) $\frac{-2}{3} \times \frac{-9}{11} = \frac{6}{11}$
5. Division of Rational Numbers
   a) $\frac{3}{8} \div \frac{5}{6} = \frac{3}{8} \times \frac{6}{5} = \frac{18}{40} = \frac{9}{20}$
   b) $\frac{-7}{5} \div \frac{-2}{3} = \frac{-7}{5} \times \frac{3}{-2} = \frac{21}{10}$
6. a) Multiplicative Identity *(Any number multiplied by 1 remains unchanged.)*
   b) Commutative Property of Multiplication (Changing the order of multiplication does not change the product.)
7. *Associative Property of Multiplication (The way numbers are grouped in multiplication does not change the product.)*

Learning Level Tracker

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Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Rational Numbers		
		Level 1	Level 2	Level 3

Chapter 2 : Linear Equations in One Variable

Activity 1 Find the X

35 mins

Instructions

- Divide the students into small groups (each consisting of 3 to 4members).
- Write the following problems on paper slips and place them in a bowl.
  - $4x$-3 = 2(x+5)+x
  - $5x$+8 = 2(2x+4)+x
  - 3(x-2) = 4(x-5)+6
  - 2(5x+1) =3(3x-4)+7
  - 4(x+2) = 5(x-1)-3x+6
  - 2(3x-1) = 4x+8
  - 7(x-3) = 5x+8
- Ask one member of each team to come and pick a problem from the bowl.
- The students then return to their respective team and work with group members to solve the equation collaboratively.
- Once the groups have solved the problems, ask one student from each team to come to the board, explain the steps, and discuss the solution with the whole class. Encourage students to compare different approaches and discuss alternative methods for solving the equations.

Activity 2 Complex variable

35 mins

Instructions

- Ask the students to sit in pairs.
- Write the following problems on a slip and keep it in a bowl. (Create more problems depending upon the class strength)
  - $\frac{y}{3} - \frac{1}{4} = \frac{y}{5} + \frac{1}{2}$
  - $\frac{k}{2} + \frac{3k}{2} + \frac{4k}{10} = 14$
  - $x + \frac{5}{4} = \frac{3x}{2} + \frac{2}{3}$
  - $\frac{x-3}{6} = \frac{x+2}{8}$

- $4(m-2)=3(2m+1)+5$
- $2(a-5)+3(a+2)=4(3a-7)$
- $0.2(3x+4)=0.1(6x+10)$
- $3(2p+3)-4(p-1)=2(3p+5)-6$

- Ask each pair to pick one problem and solve it.
- Help the students who are struggling to solve them.
- Invite students randomly to solve the problems on the board.

Activity 3 Find the x - 2

35 mins

Instructions

- Divide the students into small groups (each consisting of 3 to 4members).
- Write the following problems on the board.
  - Two friends, A and B, started a business together. A invested $3x+1000$ rupees. B invested $2x+4000$ rupees. If their total investments are equal, find the value of x.
  - A vendor charges $5x+10$ rupees for 1 kg of apples and $3x+50$ rupees for 2 kg of oranges. If the cost of the apples and oranges is the same, find the value of x.
  - A car and a bike start from the same point and travel in opposite directions. The car's speed is $2x+20$ km/h. The bike's speed is $3x+10$ km/h. If they cover the same distance in the same amount of time, find x.
  - Two theatres charge differently for movie tickets: Theater A charges $2x+150$ rupees per ticket. Theater B charges $3x+100$ rupees per ticket. If the ticket prices are the same, find x.
- Ask each group to work on these problems.
- Once the groups have solved the problems, invite one member from each group to the board and share the solution with the entire class.

Assessment

35 mins

Linear Equations in One Variable

1. Solve:
   a) $3(x-2) = 2x+4$
   b) $5(2x-12) = 7(2x+10)$
   c) $2x-3 = 5x+6$
2. Simplify the following:
   a) $\frac{x}{2} - \frac{1}{4} = \frac{x}{5} + \frac{1}{3}$
   b) $\frac{y}{2} + \frac{3y}{5} + \frac{4y}{10} = 14$
   c) $k + \frac{5}{4} = \frac{3k}{2} + \frac{2}{3}$
3. A number is tripled and then 7 is added to it, resulting in 40. Find the number.
4. A shopkeeper sells a pen for ₹50 after giving a discount of ₹15. Find the original price of the pen.

Answer Key

1. a) 3(x-2) = 2x+4
   - Expand: 3x−6 = 2x+4
   - Rearrange: 3x−2x = 4+6
   - Solve: x = **10**

   b) 5(2x−12) = 7(2x+10)
   - Expand: 10x−60=14x+70
   - Rearrange: 10x−14x=70+60
   - Solve: −4x = 130⇒ x = **−32.5**

   c) 2x-3 = 5x+6
   - Rearrange: 2x−5x=6+3
   - Simplify: −3x=9
   - Solve: x= 9/-3 = **-3**

2. a) $\frac{x}{2} - \frac{1}{4} = \frac{x}{5} + \frac{1}{3}$

   $\frac{x}{2} - \frac{x}{5} = \frac{1}{3} + \frac{1}{4}$

   $\frac{3x}{10} = \frac{7}{12}$

   $x = \frac{7}{12} * \frac{10}{3}$

   $x = \frac{35}{18}$

b) $\frac{y}{2} + \frac{3y}{5} + \frac{4y}{10} = 14$

$\frac{(10y+6y+4y)}{10} = 14$

$20y = 14 * 10$

$y = 7$

k+5/4=3k/2+2/3

c) $k - \frac{3k}{2} = \frac{2}{3} - \frac{5}{4}$

$-\frac{k}{2} = \frac{(8-15)}{12}$

$-k = -\frac{7}{6}$

$k = \frac{7}{6}$

3. Let the number be x

   According to the statement:

   $3x + 7 = 40$

   $x = \frac{(40-7)}{3} = \frac{33}{3} = 11$

4. Let the original price of the pen be x.

   Discount = 15

   Selling price =50

   $x - 15 = 50$

   $x = 50 + 15 = 65$

Learning Level Tracker

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Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Linear Equations in One Variable		
		Level 1	Level 2	Level 3

Chapter 3 : Understanding Quadrilaterals

Activity 1 Secret Angle

35 mins

Instructions

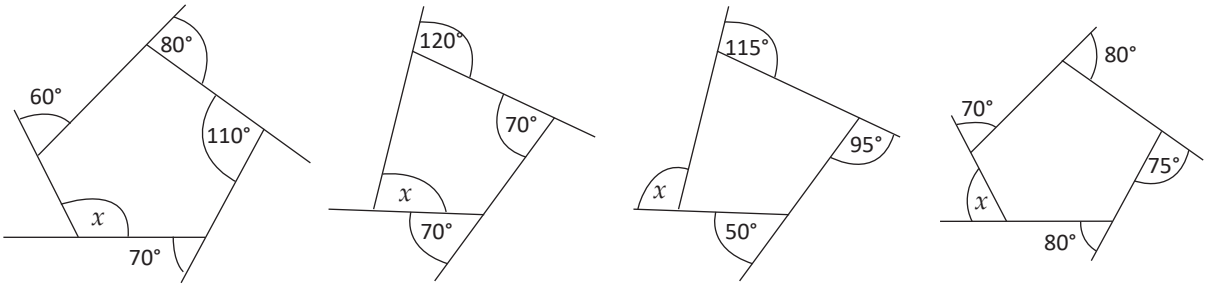
- Pair Up Students – Divide the class into pairs and provide each pair with a ruler, protractor, and paper. Assign one student as the drawer and the other as the checker.
- Instruct the drawer to draw any quadrilateral of their choice. Encourage them to create different types—square, rectangle, parallelogram, or irregular quadrilateral—to compare results.
- Ask the checker to use the protractor to carefully measure each of the four angles and record them. Emphasize the importance of accuracy.
- Have students work together to add the four measured angles. If the sum is not 360°, instruct them to double-check their measurements.
- To make it more challenging, ask each pair to repeat the activity with a different quadrilateral, but this time, they should swap roles—the previous checker now becomes the drawer, and vice versa.
- Before measuring, have students predict whether the angle sum of an irregular quadrilateral will still be 360°. Let them test their prediction by measuring and calculating again.
- Invite pairs to share their results and discuss if the angle sum was always 360°. Conclude by reinforcing the mathematical rule: The sum of the interior angles of any quadrilateral is always 360°!

Activity 2 Find the angle

35 mins

Instructions

- Draw the following figures in the blackboard.



- Instruct students to find the value of [x] in each figure. Encourage them to use their understanding of angle relationships, properties of triangles, or algebraic expressions to solve for [x].

- Highlight different methods that can be used to find the value of x, such as:
  - Sum of Exterior Angles: The exterior angles of any quadrilateral always add up to 360°, helping find unknown angles.
  - Interior-Exterior Relationship: Each interior and exterior angle pair sums to 180°, allowing one to be found if the other is known.
- Move around the classroom to assist students who need help. Guide them through the necessary steps, asking probing questions to help them think critically about their approach.
- Discuss the solutions as a class. Invite students to explain their reasoning, such as that can be used to find the value of [x].

Activity 3 Different Quadrilaterals

35 mins

Instructions

- Begin by organizing the students into pairs and provide each pair with sheets of paper and rulers. Instruct them to draw different types of quadrilaterals such as squares, rectangles, parallelograms, rhombuses, and trapeziums.
- Introduce a comparative table for quadrilateral properties. Explain that the students will fill in a table comparing different characteristics of their quadrilaterals. The table should include:
  - The number of sides
  - The number of vertices
  - The types of sides (equal, parallel)
  - The types of angles (right, acute, obtuse)
  - Whether the diagonals are equal or bisect each other
- Guide students through the activity. Ask them to carefully observe and measure their drawn quadrilaterals to complete the table accurately. Encourage them to use rulers to check side lengths and protractors to measure angles where needed.
- **Table For example:**

Quadrilateral	Number of Sides	Number of Vertices	Types of Sides	Types of Angles	Length of Diagonals
Square	4	4	All sides equal	All 90°	Equal diagonals
Rectangle	4	4	Opposite sides equal	All 90°	Equal diagonals
Parallelogram	4	4	Opposite sides equal & parallel	Opposite angles equal	Diagonals bisect each other
Rhombus	4	4	All sides equal	Opposite angles equal	Diagonals bisect at 90°
Trapezium	4	4	One pair of opposite sides parallel	Angles vary	Diagonals are not equal

- Invite students to share their observations, comparing the different properties of quadrilaterals. Encourage them to notice patterns, such as how diagonals behave differently in various shapes or how angles change in different quadrilaterals.
- Conclude by reinforcing key concepts. Summarize the properties of each quadrilateral, ensuring students understand the distinctions between them.

Assessment

35 mins

1. Which of the following is a property of a parallelogram?
   a) Opposite angles are equal
   b) All sides are equal
   c) Diagonals are equal
   d) All angles are right angles
2. What is the sum of the interior angles of a quadrilateral?
   a) 180°
   b) 360°
   c) 270°
   d) 720°
3. In a park, the boundary is a quadrilateral. Two opposite sides are parallel and equal, while the other two sides are unequal. Identify the type of quadrilateral the boundary forms and explain why.
4. In a quadrilateral ABCD, the angles are represented as 4x,3x+10°,2x+20°,and 5x-10°. Find the value of x and calculate all the angles.
5. In a rhombus, one of the angles is 120°. Find the other three angles.

Answer Key

1. a) Opposite angles are equal
2. b) 360°
3. Parallelogram – It has opposite sides that are equal and parallel, while the other two sides can be unequal.
4. x = 24°
   4x = 96°
   3x + 10° = 82°
   2x + 20° = 68°
   5x - 10° = 114°
5. 120°, 120°, 60°, 60

Learning Level Tracker

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Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Understanding Quadrilaterals		
		Level 1	Level 2	Level 3

Chapter 4 : Data Handling

Activity 1 Bar and Pie

35 mins

Instructions

- Begin the activity by discussing the importance of a daily routine with students. Ask them to share common activities they do each day (e.g., studying, eating, playing, sleeping) and estimate how much time they spend on each.
- Ask students to sit in pairs and create a table listing their daily activities alongside the time spent on each.

Daily Activity	Time in minutes	Time in hours

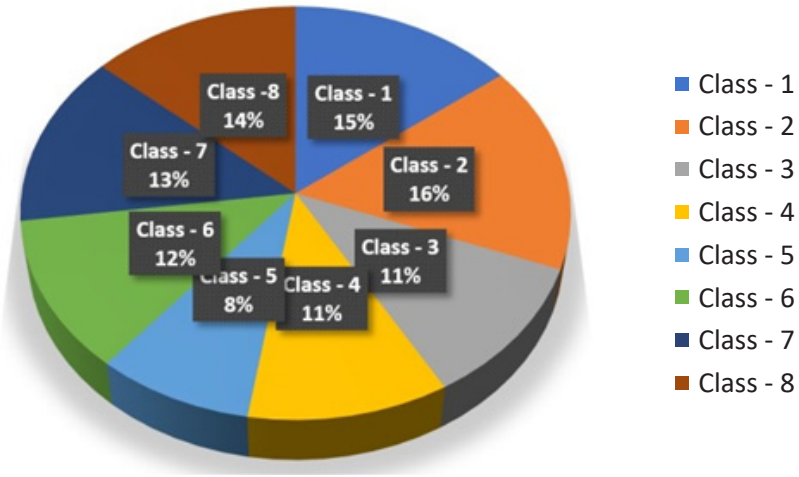
- Once the table is completed, instruct students to visually represent their data by creating:
  - o A bar graph to compare the time spent on different activities.
  - o A pie chart to show the proportion of time allocated to each activity.
- After completing their graphs, bring the class together for discussion and ask students to reflect on their daily schedules.
- Discuss what changes they would like to make and why (e.g., reducing screen time, increasing study time, or adding more physical activities) and conclude by emphasizing the importance of managing time effectively.

Activity 2 What does Pie say?

35 mins

Instructions

- Divide the class into 3-4 groups.
- Display the pie chart representing the number of students from Classes 1 to 8. Explain that the total number of students in the school is **295**.



- Ask each group to analyse the pie chart and answer the following questions:
  - What is the number of students in each class?
  - Which two classes have the same number of students?
  - Which class has the maximum number of students?
  - Which class has the least number of students?
- Encourage students to discuss their findings within their groups.

Activity 3 Toss and Roll

35 mins

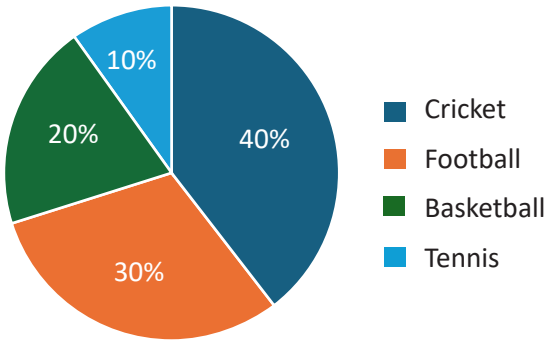
Instructions

- Ask students to sit in pairs.
- Distribute coins and dice to each pair.
- Instruct them to conduct the following experiments and list all possible outcomes:
  - Toss one coin.
  - Toss two coins together.
  - Roll one die.
  - Roll two dice together.
  - Toss one coin and roll one die.
- Once all pairs complete the experiments, bring the class together for a discussion and encourage students to compare their results, identify patterns, and discuss the concept of probability based on their findings.

Assessment

35 mins

1. Look at the pie chart below, which shows the distribution of favorite sports among a group of students.



Now answer the following questions:

a. What percentage of students like Football?

b. If there are 100 students in total, how many students like Basketball?

c. How many students like Cricket?

d. What fraction of the students like Tennis?

2. The following table shows the marks obtained by a student in 5 different subjects:

Subject	Marks
Maths	80
Science	70
English	90
History	60
Geography	50

Task: Draw a pie chart to represent the percentage of marks obtained in each subject. (Use a protractor to measure angles and ensure the total angle is 360°.)

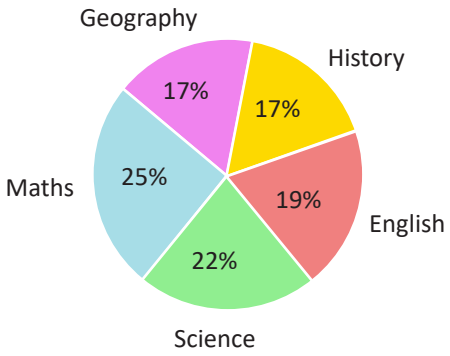
3. The table below shows the sales of mobile phones by different brands in a month:

Brand	Number of Phones Sold
Brand A	1000
Brand B	1200
Brand C	800
Brand D	950
Brand E	1050

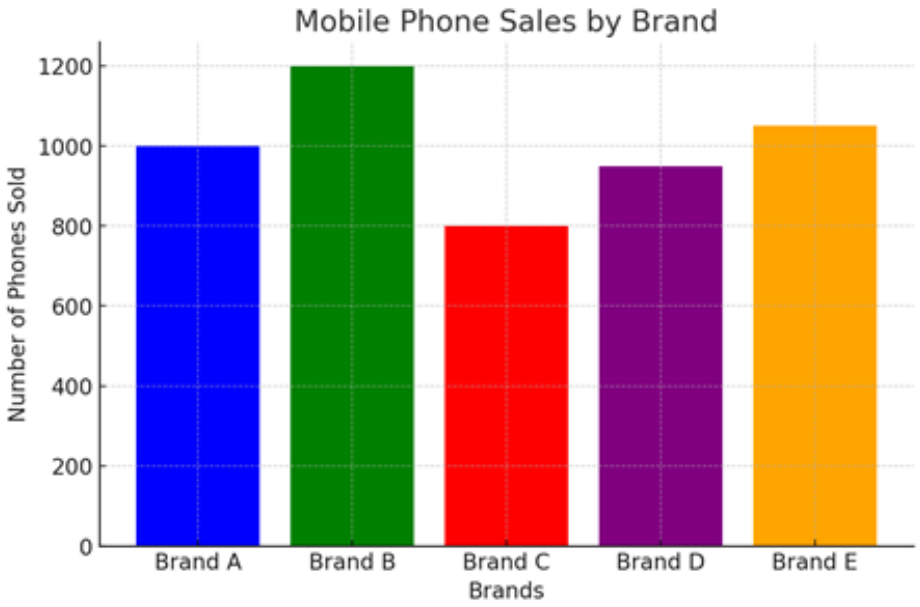
Task: Draw a bar graph to represent the number of phones sold by each brand.

Answer Key

1. a. 30%
   b. 20
   c. 40
   d. 1/10
2. Percentage Distribution of Marks in Different Subjects



Subject	Marks	Angle Calculation	Angle
Maths	90	(90/300) × 360	108°
Science	75	(75/300) × 360	90°
English	60	(60/300) × 360	72°
History	45	(45/300) × 360	54°
Geography	30	(30/300) × 360	36°



Learning Level Tracker

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Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Data Handling		
		Level 1	Level 2	Level 3

Chapter 5 : Square and Square Roots

Activity 1 Square Hopscotch

35 mins

Instructions

- Divide the class into small groups of 3-4 and have each group take turns playing the game.
- Draw large boxes on the ground and write the squares of numbers from 1 to 20 inside them.
- Gather one group of students in a line and explain the rules of the game. Only one student will step forward at a time.
- Call out a number between 1 and 20. The first student in line must quickly find and jump into the box containing the square of that number.
- For example, if you call out "9," the student should jump into the box labelled "81."
- If the student jumps into the wrong box or steps into an incorrect box, they go to the end of the line, and the next student gets a turn.
- Continue the activity until all numbers have been called out. Repeat with the next group, ensuring everyone participates.

Activity 2 Roots of the Square

35 mins

Instructions

- Pair up the students and ask each of them to secretly choose a number between 1 and 100.
- Instruct them to square their chosen number and give only the squared result to their partner.
- The partner must determine the square root of the given number using either the prime factorization method or the long division method.
- Once the square root is found, the student who originally chose the number verifies the answer.
- Encourage students to discuss their methods and check their calculations.
- Assist those who struggle to ensure everyone understands the concept of finding square roots.

Activity 3 Everyday Squares and Roots

35 mins

Instructions

- Ask students to sit in pairs.
- Write the following problems on slips of paper and place them in a container.
  - **Library:** A library has 625 books. The librarian wants to arrange them in square shelves where the number of rows equals the number of columns. How many rows and columns are required? If the library gets 50 more books, can the books still be arranged in a perfect square?
  - **School Seating:** A school has 900 students for an event. They need to sit in a square arrangement (rows = columns). How many students can be arranged this way? If 80 students are absent, how many will remain unseated?
  - **Square Garden:** A square garden has an area of 784 square meters.

    What is the length of each side of the garden? If the garden is expanded to 1,024 square meters, how much will each side increase?
  - **Chocolate Packing:** A company produces 361 chocolates and wants to pack them in square boxes (rows = columns). How many chocolates can be packed in one box? If they produce 50 more chocolates, can they still fit into square boxes?
  - **Tiling a Floor:** A room needs square tiles to cover the floor, and each tile has an area of 1 square meter. The floor is a perfect square with an area of 441 square meters. How many tiles are needed?

    If 60 tiles break, how many more tiles are required to complete the floor?
  - **Fencing Land:** A farmer has 576 square meters of land to fence for his animals in a perfect square. What will be the length of each side? If he increases the fenced area to 729 square meters, how much longer will each side become?
  - **Plot Division:** A plot of land with an area of 961 square meters needs to be divided into square sections. What is the side length of each square section? If the owner increases the area by 200 square meters, can the plot still be divided into perfect square sections?
- Once all pairs have completed their problems, discuss the solutions as a class.
- Allow students to explain their approach and reasoning for solving each problem.

Assessment

35 mins

1. Find the square root of 169.
2. Write the first five perfect squares.
3. If the square of a number is 196, find the number.
4. Find the square root of 225 by long division method.
5. If the square of a number is 625, what is the number? Also, verify your answer by squaring it.
6. The area of a square plot of land is 14400 square meters. How long is each side of the square? If a person walks around the plot, what is the total distance walked?
7. The area of a square playground is 784 square meters. Find the side of the square and the perimeter of the playground.

Answer Key

1. 13
2. 1, 4, 9, 16, 25
3. 14
4. 15
5. 25 (Verification: 25 × 25 = 625)
6. 120 meters (Side length), 480 meters (Perimeter/Total distance walked)
7. 28 meters (Side length), 112 meters (Perimeter)

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Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Square and Square Roots		
		Level 1	Level 2	Level 3

Chapter 6 : Cubes and Cube Roots

Activity 1 Cube Hopscotch

35 mins

Instructions

- Use chalk to draw 30 large boxes on the ground. Inside each box, write a number. Include all cube numbers from 1^3 to 20^3 (e.g., 1, 8, 27, ..., 8000), some square numbers (like 4, 25, 49, 121, etc.), and some numbers that are neither squares nor cubes (e.g., 18, 45, 70).
- Call out a number between 1 and 20. Ask students to must mentally calculate the cube of that number and jump into the box with the correct cube. For example, if you call out "9," the correct jump would be to 729.
- Since the grid includes square and non-cube numbers, students must pay close attention and avoid false traps. If a student jumps into the wrong box (e.g., a square or random number), they are out for that round.
- Conclude the activity by reviewing all the correct cube numbers from 1^3 to 20^3. Ask students how they distinguished cubes from squares and other numbers. End with a quick explanation of why cube numbers are important, such as in volume calculations or real-world applications involving 3D space.

Activity 2 Cubes and Consecutives

35 mins

Instructions

- Create 10 slips of paper or chart strips, each containing a group of consecutive odd numbers and write the corresponding cube number (e.g. 1^3, 2^3, 3^3, etc.) on a separate slip and keep these in a separate pile.

Odd Numbers
1
3, 5
7, 9 ,11
13 , 15 , 17 , 19
21 , 23 , 25 , 27 , 29
31 , 33 , 35 , 37 , 39 , 41
43 , 45 , 47 , 49 , 51 , 53 , 55
57 , 59 , 61 , 63 , 65 , 67 , 69 , 71
73 , 75 , 77 , 79 , 81 , 83 , 85 , 87 , 89
91 , 93 , 95 , 97 , 99 , 101 , 103 , 105 , 107 , 109

Cube Numbers
1
8
27
64
125
216
343
512
729
1000

- Divide the class into small groups of 3–4 students each and hand each group one Odd Number Slip
- Instruct students to add the numbers as a team and calculate the sum.
- Once a group has added up the consecutive odd numbers on their slip and found the sum (e.g., 13 + 15 + 17 + 19 = 64), ask them to go to the Cube Answer Slip pile (Set B) and carefully search for the matching cube expression (e.g., "$64 = 4^3$").
- As the group finds what they think is the correct Cube Answer Slip, check if the sum of the odd numbers matches the cube expression correctly (e.g., $64 = 4^3$).
- If the answer is incorrect, return the slips to the group and ask them to recalculate their sum or check whether the cube they selected matches that sum.
- Once all groups have completed the task and had their matches verified, bring the class together to discuss the pattern observed — that the sum of consecutive odd numbers starting from 1 forms perfect cubes — and reinforce how patterns help us understand mathematical concepts more deeply.

Activity 3 Making Perfect Cubes

35 mins

Instructions

- Divide the students into 3–4 groups to encourage teamwork and collaboration.
- Write a mix of cube and non-cube numbers on the board, such as:

  243, 300, 375, 450, 1024, 1500, 2000, 2500, 3072.
- Ask each group to pick one number from the list.
- Instruct the groups to determine whether their chosen number is a perfect cube by performing prime factorisation and checking whether all prime factors occur in multiples of three.
  - Example: For 243 → prime factorisation is $3 \times 3 \times 3 \times 3 \times 3$.
- If a number is not a perfect cube, ask the group to find the smallest number by which it must be multiplied or divided to convert it into a perfect cube.
- Guide the discussion to ensure students understand that a number which is not a perfect cube can be adjusted by multiplying or dividing by specific factors to make it a perfect cube.
- Repeat the process for other numbers and have the groups share their findings with the class.

Assessment

35 mins

1. What is the cube root of 729?
2. Write the first five perfect cubes.
3. If the cube of a number is 512, find the number.
4. Find the cube root of 19683 by prime factorisation.
5. Find the smallest number by which 675 must be multiplied to make it a perfect cube.
6. The cube of a number is 5832. Find the number using prime factorisation.
7. A student calculates the cube of a number and gets 91125. Find the cube root of this number.

Answer Key

1. Cube root of 729:
   (729 = 3 × 3 × 3 × 3 × 3 × 3)
   Group the factors into sets of three: (3 × 3 × 3) × (3 × 3 × 3)
   Cube root = 9
2. First five perfect cubes:
   ($1^3 = 1$)
   ($2^3 = 8$)
   ($3^3 = 27$)
   ($4^3 = 64$)
   ($5^3 = 125$)
3. Find the cube root:
   Prime factorisation: (512 = 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2)
   Group into sets of three: (2 × 2 × 2) × (2 × 2 × 2) × (2 × 2 × 2)
   Cube root = 8
4. Cube root of 19683 by prime factorisation:
   Find the prime factorisation: (19683 = 3 × 3 × 3 × 3 × 3 × 3 × 3 × 3 × 3)
   Group the factors into sets of three: (3 × 3 × 3) × (3 × 3 × 3) × (3 × 3 × 3)
   Cube root = 27
5. Find the smallest number by which 675 must be multiplied to make it a perfect cube.
   Prime factorisation of 675:
   (675 = 3 × 3 × 3 × 5 × 5)
   To make it a perfect cube, we need three of each prime factor.
   Since there are only two factors of 5, we need one more 5.
   Multiply 675 × 5 = 3375, which is a perfect cube.
   Answer: 5

6. Prime factorisation of 5832: (5832 = 2 × 2 × 2 × 3 × 3 × 3 × 3 × 3 × 3)

   Grouping into sets of three:

   ((2 × 2 × 2) × (3 × 3 × 3) × (3 × 3 × 3))

   Cube root = 18

7. A student calculates the cube of a number and gets 91125. Find the cube root of this number.

   Prime factorisation of 91125:

   (91125 = 3 × 3 × 3 × 5 × 5 × 5 × 3 × 3 × 3)

   Grouping into sets of three:

   ((3 × 3 × 3) × (5 × 5 × 5) × (3 × 3 × 3))

   Cube root = 45

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Name of the School:	**UDISE:**
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Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Cubes and Cube Roots		
		Level 1	Level 2	Level 3

Chapter 7 : Comparing Quantities

Activity 1 Snack Elections

35 mins

Instructions

- Create a classroom election to vote for the best snack option: Chips, Cookies, or Fruit. Explain to the students that they will act as "voters."
- Provide the voters with a paper slip and instruct them to write their choice (Chips, Cookies, or Fruit) on the slip and drop it into the ballot box.
- Once all votes are cast, tally the votes aloud and write the total number of votes for each option on the board. For example:
  - Chips: 8
  - Cookies: 12
  - Fruit: 10
- Continue by asking students to calculate:
  - Question 1: "What's the ratio of Chips voters to Cookies voters?"
    E.g., Answer: 8:12, which simplifies to 2:3.
  - Question 2: "If 5 more students voted for Chips, what's the new ratio of Chips to Fruit?"
    E.g., Answer: 13:10 (new total for Chips is 13, Fruit remains 10).
- Calculate the total number of votes (e.g., 30) and ask students to find the percentages of the votes for each snack and if time permits, guide the students to draw a simple pie chart with rough estimates. Label each section to show percentages, for example, 40% for Cookies (~144°).
- Conclude by guiding the students to understand that ratios and percentages not only helps in making comparisons and solving mathematical problems, but it also plays a crucial role in everyday life, such as understanding election results, market trends, and even managing personal finances.

Activity 2 Smart Buying

35 mins

Instructions

- Divide students into groups of 3 or 4 and explain that they will act as "buyers" with a fictional budget of ₹10,000 each.
- Present a list of fictional products with their original prices, such as:
  - Bicycle: ₹5,000
  - Jacket: ₹1,500
  - Smartphone: ₹12,000

- Book Set: ₹750
- Bag: ₹1250
- Study Desk: ₹7500

- Prepare a set of discount cards with offers like:
  - Flat 40% off
  - 30% + 10% off
  - 60% + 15% off
  - Flat 55% off
- Ask each group to randomly pick a discount card and select a product they'd like to "buy." Have them calculate the final price after applying the discount and check if it fits their budget.
- Let each group decide how to spend their ₹10,000. They can buy multiple products if their calculations fit the budget.
- At the end of the activity, have each group present their "purchases" and explain why they chose the items and discounts they chose.
- Conclude by discussing how discounts work, focusing on the math behind percentage calculations, sequential discounts and the advantage of analysing offers before buying.

Activity 3 Simple and Compound Interest

35 mins

Instructions

- Explain to the class that they will be working with two types of interest:
  - Simple Interest (SI): Interest which is calculated only on the original amount (principal) for each year. It grows at a constant rate.
  - Compound Interest (CI): Interest which is calculated on both the original amount and the interest already earned. It grows exponentially over time
- Split the class into two groups:
  - Group 1 will track Bank SI (Simple Interest).
  - Group 2 will track Bank CI (Compound Interest).
- Explain to the groups that they will start the game with ₹100 and will calculate interest over three years.
- Calculations for Year 1:
  - Ask students to calculate 10% of ₹100 for both banks.
  - Instruct them to add the interest to the principal and note the total for each bank:
  - Bank SI: ₹100 + ₹10 = ₹110
  - Bank CI: ₹100 + ₹10 = ₹110
  - Highlight that in the first year, both banks give the same total.
- Calculations for Year 2
  - Guide Group 1 to compute 10% of the original ₹100 for Bank SI, which remains ₹10.
  - Ask Group 2 to calculate 10% of ₹110 (the previous year's total) for Bank CI, which is ₹11.
  - Now, Bank SI: ₹110 + ₹10 = ₹120
  - Bank CI: ₹110 + ₹11 = ₹121

- Emphasise that CI now slightly exceeds SI due to interest on the previous year's amount.
- Calculations for Year 3
  - Instruct students to add ₹10 again for Bank SI, since the interest remains fixed on the original ₹100.
  - For Bank CI, have them compute 10% of ₹121, which is ₹12.10.
  - Students should then record the new totals:
  - Bank SI: ₹120 + ₹10 = ₹130
  - Bank CI: ₹121 + ₹12.10 = ₹133.10
- Conclude this step by pointing out how the CI amount increases more quickly over time, compared to the steady growth of SI.
- After calculating the totals for both Bank SI and Bank CI over 3 years, summarise the differences with your students. Emphasise that:
  - Simple Interest (SI) adds a fixed amount each year, leading to linear growth.
  - Compound Interest (CI) adds interest on both the principal and the accumulated interest, resulting in exponential growth over time.
- Discuss how each method serves different purposes in real life. Explain that while SI might be simpler and used for short-term loans or fixed payment plans, CI is more beneficial for long-term savings and investments because of its accelerating effect. This understanding aids in making informed financial decisions based on the situation at hand.

Assessment

35 mins

1. If a product is available at a discount of 20% and its original price is Rs. 500, what is the discount amount?
   a) Rs. 50
   b) Rs. 100
   c) Rs. 150
   d) Rs. 200
2. A person bought an item for Rs. 800 and sold it for Rs. 960. What is the profit percentage?
   a) 15%
   b) 18%
   c) 20%
   d) 25%
3. A shopkeeper buys an item for Rs. 400 and sells it for Rs. 500. Find the profit percentage.
4. A car was bought for Rs. 3,50,000. After one year, its value decreased by 12%. What is the value of the car after one year?

Answer Key

1. 20% of Rs. 500 = (20/100) × 500 = Rs. 100
   Answer: b) Rs. 100
2. Cost Price = Rs. 800, Selling Price = Rs. 960
   Profit = 960 - 800 = Rs. 160
   Profit % = (160 / 800) × 100 = 20%
   Answer: c) 20%
3. Cost Price = Rs. 400, Selling Price = Rs. 500
   Profit = 500 - 400 = Rs. 100
   Profit % = (100 / 400) × 100 = 25%
   Answer: 25%
4. Original value = Rs. 3,50,000
   Depreciation = 12% of 3,50,000 = (12 / 100) × 3,50,000 = Rs. 42,000
   Value after one year = 3,50,000 - 42,000 = Rs. 3,08,000
   Answer: Rs. 3,08,000

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Name of the School:	**UDISE:**
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Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Comparing Quantities		
		Level 1	Level 2	Level 3

Chapter 8 : Algebraic Expressions and Identities

Activity 1 Addition using tiles

35 mins

Instructions

- Divide students into 4-5 groups.
- Before starting the activity, arrange some cut-outs of chart papers. Take green and red chart papers where green for positive and red for negative.
- Now ask each group to bring some green and red chart papers and a scissor.
- Instruct them to cut some long rectangle shapes from both coloured chart papers and small square shapes from both coloured chart papers. Long rectangle shapes mean Variable and Small square shapes mean Constant.
- Again, show the physical representation of the shapes:

  x → green rectangle

  –x → red rectangle

  1 → green square

  –1 → red square
- Now write an addition on the board. For example: Add 2x+3 and x-2
- Encourage each group to set up the first expression as 2 green rectangles and 3 green squares. Then set up the second expression as 1 green rectangle and 2 red squares.
- Now ask them to combine all the tiles- Rectangles: 2+1=3x and Squares: 3-2=1
- Ask them to write and verify the answer with classroom.
- Repeat this method for another set of addition from easy to complex.

Activity 2 Multiplication using grid method

35 mins

Instructions

- Write a simple algebraic multiplication problem on the board. For example: Multiply (x+2) and (x+5).
- Ask students to put x and 2 from (x+2) across the row and x and x and 5 from (x+5) across the column.

	X	2
X		
5		

- Ask students to multiply the items where the row and column meets.

	X	2
X	X^2	2x
5	5x	10

- Now ask the students to add the like terms and keep the single or unlike terms as it is from the red coloured portion.

  The answer will be: $X^2+5x+2x+10 = x^2+7x+10$
- Repeat this activity using different algebraic examples from easy to complex level.

Activity 3 Math your answers

35 mins

Instructions

- Divide classroom into two teams.
- Prepare some paper chits labelling with some problems on addition, subtraction & multiplication and answers. Keep the answer chits in a separate container and the problems in another container.
- Distribute each group some paper chits of problems as well answers.
- Now ask the group to match their problems with the answer chits and write down the solution in their copies.
- Share the results with the classroom.
- Each correct answer will get 1 point and based on that announce the winner.

Assessment

35 mins

1. Which of the following is the correct expansion of $(x+3)(x-5)$
   a) $x^2-2x-15$
   b) $x^2-15x+3$
   c) $x^2-2x+15$
   d) x^2-x-15
2. Expand and simplify: $(x+4)(x-3)$
3. Simplify the expression: $5x^2-3x+2-3x^2+4x-1$
4. The perimeter of a rectangle is expressed as 2(l+b), where l is the length and b is the breadth. If the length is $3x+2$ and the breadth is $2x+4$, find the perimeter of the rectangle in terms of x.
5. A shopkeeper sells two types of T-shirts, one costing $x+100$ rupees and the other costing $x+50$ rupees. If the shopkeeper sells 5 of the first type and 3 of the second type, write an expression for the total money earned and simplify it.

Answer Key

1. Correct Expansion of $(x + 3)(x – 5)$
   $(x + 3)(x - 5) = x^2 - 5x + 3x - 15 = x^2 - 2x - 15$
   Answer: (a) $x^2 - 2x - 15$
2. Expand and Simplify: $(x + 4)(x – 3)$
   $(x + 4)(x - 3) = x^2 - 3x + 4x - 12 = x^2 + x - 12$
   Answer: $x^2 + x - 12$
3. Simplify: $5x^2 - 3x + 2 - 3x^2 + 4x - 1$
   Group like terms:
   $(5x^2 - 3x^2) + (-3x + 4x) + (2 - 1) = 2x^2 + x + 1$
4. Perimeter of a Rectangle
   Length = 3x + 2, Breadth = 2x + 4
   Procedure:
   $P = 2(l + b) = 2((3x + 2) + (2x + 4)) = 2(5x + 6) = 10x + 12$
5. Total Money Earned by Shopkeeper
   First type T-shirt: x + 100, sold = 5
   Second type T-shirt: x + 50, sold = 3
   5(x + 100) = 5x + 500
   3(x + 50) = 3x + 150
   Total = 5x + 500 + 3x + 150 = 8x + 650

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Name of the School:	**UDISE:**
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Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Algebraic Expressions and Identities		
		Level 1	Level 2	Level 3

Chapter 9 : Mensuration

Activity 1 Drawing and Understanding in 3D

35 mins

Instructions

- Pair up the students and provide each pair with a familiar 3D object, such as a cube, cylinder, cone, or sphere. One student in the pair will be the Drawer, and the other will be the Counter.
  - The Drawer selects a view—front, top, or side—and draws how the object looks from that perspective on paper. The students can rotate roles after each drawing if time permits.
  - The Counter observes the 3D object carefully and counts the number of vertices (V), edges (E), and faces (F). They should note these details as their partner draws.
- Guide students to draw keeping the following in mind:
  - For a cube, the top, front, and side views are all squares. Depth may be shown using overlapping lines or parallelograms.
  - For a cylinder, the top view is a circle; front and side views appear as rectangles with rounded ends.
  - For a cone, the top view is a circle; the front and side views are triangles.
  - For a sphere, all views are circles; shading can help suggest the roundness.
- Once both students complete their tasks, they should review each other's work—checking the accuracy of both the drawing and the count.
- Draw the following table on the board for each pair to fill in:

Shape	Vertices (V)	Edges (E)	Faces (F)
Cube			
Cuboid			
Pyramid			
Sphere			
Cone			

- Verify the answers and the drawing, encouraging students to collaborate, discuss, and double-check their answers.
- Ask students to think of real-world examples of each 3D shape, such as boxes, traffic cones, balls, or rooftops and conclude by explaining how this skill is useful in practical fields such as engineering, architecture, product design, and construction

Activity 2 Cubes as Squares

35 mins

Instructions

- Ask students to sit in pairs and hand each pair a piece of grid paper and show them a cube-shaped object (like a dice or box) for reference.
- Explain the concept visually, discuss how a cube has 6 identical square faces and that the area of one face is side × side. Thus, to find the total surface area, we calculate the area of one face and multiply it by 6.
- Ask each pair to cut out 6 equal-sized squares from grid paper, where each square should represent one face of the cube. If possible, allow them to tape it into a cube to see how the faces connect.
- Now, put it to use and provide students with a side length of the cube, for example: 4 cm.
  - Instruct them to calculate the area of one face using the formula: side × side ($4 \times 4 = 16$ cm²).
  - Remind students that a cube has 6 identical square faces.
  - Ask them to multiply the area of one face by 6 to get the total surface area ($6 \times 16 = 96$ cm²).
- Write different side lengths (e.g., 3 cm, 5 cm, 6.5 cm) on slips of paper and let each pair pick a slip and calculate the surface area of a cube with that side length.
- Verify the answers of each group and guide students who are struggling, until all groups have the correct answer.
- Conclude with a class discussion on how understanding surface area is useful in real-life scenarios such as packaging, wrapping gifts, or designing containers.

Activity 3 Dimensions and Volumes

35 mins

Instructions

- Pair students up and ask each pair to identify 3D shapes like cubes, cuboids, and cylinders within the classroom environment. Examples could include:
  - A cube-shaped dice or storage box.
  - A cuboid-shaped table or chalkboard eraser.
  - A cylinder-shaped pencil holder or water bottle.
- Encourage them to select one of these classroom items and measure its dimensions—length, breadth, height, or radius as applicable. Using the appropriate formulas:
  - Cube: ($V = l^3$)
  - Cuboid: ($V = l \times b \times h$)
  - Cylinder: ($V = \pi r^2 h$)
- Each pair measures the dimensions of the assigned shapes (length, breadth, height, or radius). They calculate the volume using the appropriate formulas and record their results in their notebooks.
- Once all groups have completed their work, bring the class together to discuss their findings. Highlight how the measurements and formulas connect to their applications in our surroundings, such as storage, packing, or manufacturing. Encourage students to share insights on why volumes are measured in cubic units.

Assessment

35 mins

1. The volume of a cube with side length 4 cm is:
   a) 16 cm^3
   b) 64 cm^3
   c) 24 cm^3
   d) 12 cm^3
2. The area of a triangle is calculated as:
   a) $\frac{1}{2} \times base \times height$
   b) $base \times height$
   c) $side^2$
   d) πr^2
3. The total surface area of a cube with side length 5 cm is:
   a) 150 cm^2
   b) 100 cm^2
   c) 25 cm^2
   d) 30 cm^2
4. Find the area of a right-angled triangle with base 15 cm and height 20 cm.
5. A cylinder has a radius of 5 cm and height 10 cm. Find the total surface area of the cylinder. (Use π=3.14)
6. The internal measures of a cuboidal room are 12 m × 8 m × 4 m. Find the total cost of whitewashing all four walls of a room, if the cost of whitewashing is 5 per m2. What will be the cost of whitewashing if the ceiling of the room is also whitewashed.
7. The radius of a circle is 6 cm. Find the circumference and area of the circle.

Answer Key

1. The volume of a cube with side length 4 cm
   Formula: Volume = side³
   Calculation: 4 × 4 × 4 = 64 cm³
   Answer: (b) 64 cm³
2. The area of a triangle is calculated as:
   Answer: (a) 1/2 × base × height
3. Total surface area of a cube with side length 5 cm
   Formula: Total Surface Area = 6 × side²
   Calculation: 6 × (5 × 5) = 6 × 25 = 150 cm²
   Answer: (a) 150 cm²
4. Area of a right-angled triangle with base 15 cm and height 20 cm
   Formula: Area = 1/2 × base × height
   Calculation: 1/2 × 15 × 20 = 150 cm²
5. Total surface area of a cylinder (radius = 5 cm, height = 10 cm, π = 3.14)
   Formula: Total Surface Area = 2πr(h + r)
   Calculation: 2 × 3.14 × 5 × (10 + 5) = 2 × 3.14 × 5 × 15 = 471 cm²
6. Room dimensions = 12 m × 8 m × 4 m
   Cost of whitewashing = ₹5 per m²
   Cost of whitewashing four walls:
   Area = 2 × height × (length + breadth)
   = 2 × 4 × (12 + 8) = 160 m²
   Cost = 160 × 5 = ₹800
   Cost including ceiling:
   Ceiling area = 12 × 8 = 96 m²
   Extra cost = 96 × 5 = ₹480
   Total cost = ₹800 + ₹480 = ₹1280
7. Radius of circle = 6 cm — Find circumference and area
   Formulas:
   Circumference = 2πr = 2 × 3.14 × 6 = 37.68 cm
   Area = πr² = 3.14 × 6 × 6 = 113.04 cm²

Learning Level Tracker

Keep a record of unit assessment results in the tracker.

As you conduct assessments based on the activities suggested, put a tick mark as per the following:

Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Mensuration		
		Level 1	Level 2	Level 3

Chapter 10 : Exponents and Powers

Activity 1 Powers and Bases

35 mins

Instructions

- Divide the class into small teams of 3–4 students.
- Write the following expression on the board:
  - $2 \times 2 \times 2 \times 2 = ?$
  - Ask the class how many times is two multiplied here. Since the answer is 4, then write: $2^4 = 16$
- Add that, in the expression 2^4, the base is 2, which is the number being multiplied, and the power or exponent is 4, indicating that the base (2) is used as a factor 4 times in the multiplication ($2 \times 2 \times 2 \times 2$).
- Explain that as the exponent increases, the value grows rapidly because the exponent acts as a "repeat multiplier," increasing the number of times the base is multiplied.
- Divide the class into teams of 3 or 4 and write the following problems on cards:
  - Convert to Exponent Form:
    Write $4 \times 4 \times 4 \times 4$ in exponent form.
    Write $7 \times 7 \times 7 \times 7 \times 7$ in exponent form.
    Express $2 \times 2 \times 2 \times 2 \times 2 \times 2$ in exponent form.
  - Evaluate Exponent Expressions:
    What is the value of 3^3?
    What is the value of 5^2?
    What is the value of 4^4?
    What is the value of 10^3?
  - Compare Exponents:
    Which is greater: 6^2 or 3^3?
    Which is greater: 2^6 or 3^5?
    Which is greater: 5^4 or 4^5?
- Provide each team with a problem card and encourage each team to work together to solve the problems on their "Power Puzzle Card."
- After the team has solved all the problems, they will pass their card to another team for review. If the second team finds the answers correct, the first team earns 1 point.
- After a few rounds of card exchange, reinforce the concept:
  - a^2 means $a \times a$ (explaining that exponent 2 represents the number being multiplied by itself once).
  - a^3 means $a \times a \times a$ (explaining that exponent 3 represents the number being multiplied by itself twice).
  - a^4 means $a \times a \times a \times a$ (explaining that exponent 4 represents the number being multiplied by itself three times).
- Conclude by discussing that that the exponent form simplifies repeated multiplication by representing it concisely (e.g., $2 \times 2 \times 2$ as 2^3), making calculations easier, and to compare different exponents, we calculate their values (e.g., $2^3 = 8$ and $3^2 = 9$), allowing direct comparison of results.

Activity 2 Seekers and Keepers

35 mins

Instructions

- Prepare two sets of cards with one set containing expressions and the other containing corresponding simplified form:

Expression	Simplified
$x^4 \times x$	x^5
$y^6 \div y^2$	y^4
$(3^2)^2$	3^4
$(2a)^3$	$2^3 \times a^3$
$(5b)^0$	1
$a^5 \times b^5$	$(ab)^5$
$(x \div y)^2$	$x^2 \div y^2$
$(4x^3)^2$	$16 \times x^6$
$m^7 \div m^4$	m^3
$(z^2 \times z^3)^2$	z^{10}
$10^3 \times 10^2$	10^5

- Divide the class into two and assign each group the roles of:
  - Power Seekers who must find their matching Solution Keeper
  - Solution Keepers who hold the answers
- Shuffle and place all cards face up in two piles and ask the seekers and keepers to pick up cards from their respective piles.
- Ask the Seekers to walk around the room, and search for their matching Solution Keeper.
- Once a match is found, both students explain which exponent law they used. Verify the match and explanation.
- After one round, swap roles and reshuffle cards for continued practice.
- To wrap up, gather the class and highlight how using exponent laws helps simplify complex expressions quickly and accurately, making math faster, easier, and more fun to work with in real-life problem-solving.

Activity 3 Simplifying Large Numbers

35 mins

Instructions

- Prepare 3–4 sets of exponent law question slips (write them on small cards or paper).
- Each set should include different types of problems applying the laws of exponents

Problem	Law Applied
$7^3 \times 7^2$	Product of Powers (add exponents)
$9^5 \div 9^3$	Quotient of Powers (subtract exponents)
$(2^2)^4$	Power of a Power (multiply exponents)
$(a^3)(a^2)$	Product of Powers
$(b^6)/(b^4)$	Quotient of Powers
$(5 \times 4)^2$	Power of a Product
$(6/3)^3$	Power of a Quotient
8^0	Zero Exponent
$(x^2)^3$	Power of a Power
$3^2 \times 5^2$	Product with Different Bases
$(y^4 \times z^4)$	Apply exponent to both bases
$(10^2) \times (10^3)$	Product of Powers
$(m^5)/(m^2)$	Quotient of Powers
$(2^3)^2$	Power of a Power
$(p \times q)^3$	Power of a Product
$(a^2b^3)^2$	Power to a Product (apply to both)
$(2^4 \times 2^0) \div 2^2$	Combined laws (product + quotient)
$(x^0 + y^0)$	Zero Exponent + Simplification

- Divide the class into teams of 3-4 and have each team stand in a single line at the starting point on one side of the classroom.
- Explain the rules:
  - On the signal “Go!”, the first student from each team runs to the question table.
  - They pick one slip, solve the problem immediately on their notebook, and bring it to for checking.
  - If the answer is correct, the student must run back to tag the next teammate.
  - If incorrect, the teacher sends the student back to revise their answer before they can tag the next person.
  - The relay continues until every team member has completed one correct problem. The team that finishes first with all correct answers wins.
- While the game is underway, stand at the table with the slips to check answers immediately and guide students who struggle after a second attempt. Keep the atmosphere encouraging and ensure all students participate actively.
- Conclude by asking students to share which laws they found easiest or hardest and how identifying the correct law helped solve problems quickly.

Assessment

35 mins

1. Simplify:
   $2^3 \times 2^4 =$ _____
   a) 27
   b) 212
   c) 8
   d) 128
2. Find the value of the following exponential expressions:
   i. $(5^3)^2 =$ _____
   ii. $2^4 \times 2^2 =$ _____
   iii. $(3^2)^3 = 3^6 =$ _____
   iv. $4^2 \times 4^3 =$ _____
3. Express the following in exponential form:
   i. $5 \times 5 \times 5 \times 5 =$ _____
   ii. $(-3) \times (-3) \times (-3) =$ _____
4. Write the following numbers in standard form:
   i) 700,000 = _____
   ii) 9,800,000 = _____
   iii) 425,000,000 = _____
   iv) 320,000 = _____

Answer Key

1. Simplify:
   1. 23 × 24
   2. 23 × 24 = 2(3+4) = 27 = 128 (d).
2. Find the value of the following exponential expressions:
   a. $(5^3)^2$
      $(5^3)^2 = 5(3\times2) = 56 = 15625.$
   b. 24 × 22
      2(4+2) = 26 = 64.
   c. (32)3
      = 3(2×3) = 36 = 729.
   d. 42× 43
      = 4(2+3) = 45 = 1024.

3. Express the following in exponential form:
   a. $5 \times 5 \times 5 \times 5$
      $5 \times 5 \times 5 \times 5 = 54$.
   b. $(-3) \times (-3) \times (-3)$
      $(-3) \times (-3) \times (-3) = (-3)3$.
4. Write the following numbers in standard form:
   a. 700,000
      $700,000 = 7 \times 105$
   b. 9,800,000
      $9,800,000 = 9.8 \times 106$
   c. 60,000
      $60,000 = 6 \times 104$
   d. 425,000,000
      $425,000,000 = 4.25 \times 108$
   e. 320,000
      $320,000 = 3.2 \times 105$

Learning Level Tracker

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Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Maths		
Roll No.	Name of the Student	Chapter: Exponents and Powers		
		Level 1	Level 2	Level 3

Meghalaya Learning Enhancement Programme

SCIENCE

UNIT : 1

Chapter 1 : Crop Production and Management

Activity 1 Types of Irrigation Systems

35 mins

Materials Required

A plastic bottle with small holes (drip irrigation model), a glass of water (traditional irrigation), a tray filled with soil or sand

Instructions

- Invite a few student volunteers to come forward for this activity.
- Ask a student to pour water from a glass over the soil tray and ask the rest of the students to observe how much water spreads and is absorbed.
- Give a student a plastic bottle filled with water and let the water slowly drip through small holes made in the bottle's cap, onto the soil. You can invite more students to perform both tasks.
- Give students some time to think about which method uses less water. Ask them to share the reasons for their choice.
- Explain to students how drip irrigation helps in water conservation.
- Relate this to real-life farming, asking students how farmers in their region irrigate their fields.
- If time allows, ask students to draw diagrams of the experiment conducted in the class and their observations on each type of irrigation system.

Activity 2 Farming Calendar

35 mins

Materials Required

Chart papers, coloured pencils, textbook

Instructions

- Begin the class by asking students a quick question - *Why do farmers grow different crops in summer and winter? Write their answers on the board*.

- Explain to students why different crops have different requirements to germinate, grow and mature fruitfully to be able to be harvested.
- Divide students into small groups.
- Assign each group either Rabi crops or Kharif crops.
- Ask them to create a crop calendar on the chart papers, including:
  - Sowing season
  - Climatic conditions required
  - Harvesting time
- Each group will present their calendar to the class.
- Encourage the rest of the students to ask questions about the calendars being presented. Clarify the doubts that may arise.

Activity 3 The Nitrogen Cycle

35 mins

Materials Required

A ball or a waste paper ball (to represent nitrogen), blackboard

Instructions

- Start the activity with a quick question: *Why do farmers use fertilisers or grow pulses like beans and peas?* Explain that plants need nitrogen for growth, but they cannot take nitrogen directly from the air.
- On the blackboard, draw a simple nitrogen cycle.
- Divide students into four groups and label them as: Air, Soil, Plants and Animals
- Explain to students the rules of the game:
  - The "Air" group starts with the ball (representing nitrogen).
  - They pass it to Soil (since nitrogen is fixed into the soil by bacteria and lightning).
  - The "Soil" group passes it to Plants, which absorb nitrogen.
  - "Plants" pass it to Animals, since animals get nitrogen by eating plants.
  - "Animals" return nitrogen to the soil through waste and decomposition.
  - The cycle continues!
- Invite one member from each group to come forward and act out their role. Repeat the cycle 2-3 times with different students to ensure everyone understands the concepts.
- Ask students the following questions and conclude the activity:
  - Why do farmers grow pulses like peas and beans? *(They have nitrogen-fixing bacteria in their roots)*.
  - What happens if the soil lacks nitrogen? *(Crops won't grow well, so farmers use manure or fertilisers)*.

Assessment

35 mins

Choose the correct option

1. Farmers plough their fields before sowing seeds. What is the main reason for this?
   a) To remove excess water from the soil
   b) To allow proper air circulation in the soil
   c) To add more insects to the soil
   d) To dry out the soil completely
2. Why do farmers add manure or fertilisers to the soil?
   a) To remove weeds from the field
   b) To improve soil fertility and provide nutrients
   c) To prevent soil erosion
   d) To increase the number of earthworms in the soil
3. Why is crop rotation practised by farmers?
   a) To increase soil fertility and prevent nutrient loss
   b) To grow only one type of crop in a season
   c) To avoid irrigation in fields
   d) To remove harmful insects from the soil

Answer the following questions

4. Why do farmers prefer using organic manure over chemical fertilisers in the long run?

   _____
   _____

5. Why should excessive irrigation be avoided in fields?

   _____
   _____

6. Why is weeding important for healthy crop growth?

   _____
   _____

7. A farmer notices that his crop yield is decreasing every year despite using chemical fertilisers. What could be the reason for this? Suggest two sustainable farming practices that could help improve soil health.

   _____
   _____
   _____
   _____
   _____
   _____

Answer Key

1. (b) To allow proper air circulation in the soil
2. (b) To improve soil fertility and provide nutrients
3. (a) To increase soil fertility and prevent nutrient loss
4. Organic manure improves soil fertility naturally, enhances soil structure, and does not cause soil degradation like excessive chemical fertilisers.
5. Excess irrigation can cause waterlogging, leading to root rot and depletion of oxygen in the soil.
6. Weeds compete with crops for nutrients, sunlight, and water, reducing crop yield and making plants weak.
7. Reason for decreasing yield: Overuse of chemical fertilisers can reduce soil fertility, kill beneficial microbes, and lead to soil degradation.

   Sustainable farming practices:
   - Crop rotation (growing different crops in alternate seasons to restore soil nutrients).
   - Using organic manure or compost (to maintain natural soil fertility and structure).

Learning Level Tracker

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Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Science		
Roll No.	Name of the Student	Chapter: Crop Production and Management		
		Level 1	Level 2	Level 3

Chapter 2 : Microorganisms: Friend and Foe

Activity 1 What Are Microorganisms?

35 mins

Instructions

- Begin the class with the question – *Can you see everything around you? Do you know that some living organisms are crawling around your eyelashes?* (Microorganisms called Demodex mites live in our eyelashes. They are a normal part of the skin's microbiome).
- Explain to students what microorganisms are – they are tiny living organisms that are invisible to the naked eye but exist everywhere!
- Write four categories on the board: air, water, soil and inside our bodies.
- Ask students: Where do you think microorganisms exist? Write their answers under the correct category.
- Draw five boxes on the board and write the names of microorganisms inside (Bacteria, Fungi, Viruses, Protozoa, Algae).
- Give students clues and ask them to guess the microorganism. Example Clues:
  - *I am used to make curd but can also cause diseases like tuberculosis. (Bacteria)*
  - *I cause the common cold and flu but am so tiny that even normal microscopes can't see me. (Virus)*
  - *I help in making bread fluffy but can also grow on stale food as mould. (Fungi)*
  - *I live in water and cause malaria. (Protozoa)*
  - *I am found in ponds and make my own food like plants. (Algae)*
- Ask students: Can microorganisms be both good and bad? Have you ever seen fungi on bread or fruit? Why do we fall sick if we drink dirty water?
- Discuss how various microorganisms are everywhere, and they can be useful (e.g., making curd, medicines, cleaning the environment) or harmful (e.g., causing diseases, spoiling food).

Activity 2 How Vaccines Work

35 mins

Materials Required

Small paper slips with roles written on them: Virus (2-3 students), White Blood Cells (3-4 students), Vaccines (1-2 students) and Host (1 student as the human body)

Instructions

- Begin the class by asking: *Have you ever taken a vaccine? Why do we take them?* Briefly explain how vaccines train our immune system to fight diseases without making us sick.
- Inform students that we will do this activity in 2 scenarios. Assign students the roles of the Host, White Blood Cells and the Vaccines.
- First Scenario – Without a Vaccine
  - Tell students that a virus has attacked a healthy host. There is no vaccine in the current scenario. Let students enact the scenario and observe them.
  - The Viruses (2-3 students) try to "attack" the Host by lightly tapping them. As the Viruses attack the Host, the White Blood Cells (WBCs) have to try to stop the virus but fail because they don't recognise it. The Host falls "sick" (acts weak or sits down).
  - Discuss with the students: Why did the body fail to stop the virus? (WBCs did not know how to fight it).
- Second Scenario – With Vaccine
  - Introduce Vaccines (1-2 students) who pretend to "train" the WBCs.
  - Tell students that a virus has attacked a healthy host, who is vaccinated against it. Let students enact the scenario and observe them. When Viruses try to attack again, the WBCs now recognise and fight them off quickly. The Host remains healthy.
  - Discuss with the students: Why did the body fight the virus faster this time? How do vaccines help our body "remember" the virus?
- Relate the role-play to real vaccines like polio, COVID-19, or measles.

Activity 3 Fermentation

35 mins

Materials Required

Paper slips with names of local fermented foods: Jadoh, Tungrymbai, Bamboo Shoot, Sohra Pitha and some non-fermented foods: Rice, Fresh Fish, Vegetables, Roti

Instructions

- Begin the class by asking students: Have you eaten Jadoh or Tungrymbai? *Why do some foods in Meghalaya have a strong flavour or smell?*
- Explain to students that the strong flavour and smell come from the process of fermentation.
- Ask students: *Why do people ferment food? Possible answers:*
  - Helps preserve food longer.
  - Enhances taste and aroma.
  - Adds nutrients and makes food easier to digest.
- Prepare flashcards/slips with names of foods (some fermented, some not).
  - Examples of fermented foods: Tungrymbai, Bamboo Shoot, Fermented Fish, Sohra Pitha.
  - Examples of non-fermented foods: Rice, Fresh Fish, Vegetables, Roti.
- Divide students into small groups and give each group a mix of cards. Each group is to sort the cards into "Fermented" and "Not Fermented" categories.
- Conclude the class with a discussion on the following questions:
  - Why do we store fermented food carefully? (To prevent over-fermentation.)
  - Why do people in Meghalaya ferment food? *(For food preservation in winter)*
- End the class with a thought: "Fermentation is not just science – it's a part of Meghalaya's rich culture!"

Assessment

35 mins

Choose the correct option:

1. Why should cooked food be stored in a refrigerator?
   a) To increase the taste of the food
   b) To slow down the growth of microorganisms
   c) To make the food softer
   d) To completely kill all microorganisms
2. Why do farmers grow leguminous plants like peas and beans in the soil?
   a) To make the soil fertile by nitrogen fixation
   b) To prevent soil erosion
   c) To increase water content in soil
   d) To reduce the number of earthworms

Answer the following questions:

3. A student forgot to close the lid of a jam bottle. After a few days, he saw a layer of fungi on the jam.
   - Why did fungi grow on the jam?
   - How can food spoilage like this be prevented?

_____
_____
_____
_____
_____
_____

4. A farmer notices that his crops are getting infected with pests and diseases frequently.
   - What could be the reason for this?
   - Suggest two ways to control this problem.

_____
_____
_____
_____
_____
_____

Answer Key

1. (b) To slow down the growth of microorganisms
2. (a) To make the soil fertile by nitrogen fixation
3. Reason for fungal growth:
   - The jam contains sugar and moisture, which provide ideal conditions for fungal growth.
   - The bottle was left open, allowing spores from the air to settle and grow.

   Prevention:
   - Always close the lid tightly after use.
   - Store jam in a cool, dry place or refrigerate it.
4. Possible reasons for frequent pest attacks:
   - Overuse of chemical fertilisers or pesticides, leading to soil degradation.
   - Lack of crop rotation, which allows pests to thrive.
   - Improper irrigation, leading to plant diseases.

   Solutions:
   - Use organic manure and crop rotation to maintain soil fertility.
   - Use natural predators or biopesticides to control pests safely.

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Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Science		
Roll No.	Name of the Student	Chapter: Microorganisms - Friend and Foe		
		Level 1	Level 2	Level 3

Chapter 3 : Coal and Petroleum

Activity 1 Classifying Our World

35 mins

Materials Required

A collection of everyday objects (e.g., leaves, stones, water bottle, plastic bag, wooden spoon, glass, cotton fabric, metal spoon – the products can be chosen as per the availability around you), newspaper and small slips of paper

Instructions

- Place all the objects in a box or on a table. Take 2 newspapers and label one: natural and the other: human-made.
- Ask one student to come forward, pick one object at a time, observe it, and decide if it is natural or human-made.
- Ask the student to place the object on the respective newspaper, write its name on a small slip of paper and stick it under the object. Invite more students to do the same activity for other objects.
- Once all items are sorted, discuss the difference between natural and human-made resources. Encourage students to share more examples from their surroundings and explain why each example is classified as natural or human-made.
- Write the following questions on the board and discuss them with the whole class:
  - Can a resource be both natural and man-made? Give examples.
  - Why do we rely on both these types of resources?
  - What are the advantages and disadvantages of using human-made resources?
- End the activity by asking students to share what they learnt about natural and human-made resources.

Activity 2 Disappearing Resources

35 mins

Materials Required

Old newspapers, a box or a bowl

Instructions

- Before the activity, make 50 paper balls with old newspapers and put them in a bowl/box. The number of these paper balls can increase or decrease depending on the students present in the class.

- Begin the activity by introducing the meaning of exhaustible natural resources (coal, petroleum, natural gas, etc.).
- Ask students: "What happens if we keep using them without replacement?"
- Show students the bowl/box with 50 newspaper balls, explaining that this represents Earth's limited supply of coal (you can also use any other resource).
- Divide students into 3-4 groups. Each group represents a generation of people using the resource.
- A student from each group takes turns removing newspaper balls from the bowl, representing resource usage. Play 3 such rounds with all the groups.
- After the third round, stop and count the remaining newspaper balls.
- Discuss the following questions with students:
  - How did the resource level change over time?
  - How much is left for future generations?
  - What will happen when nothing is left?
  - What could we have done to make the resources last longer?
- In the end, introduce conservation strategies like using renewable energy, recycling, and efficient consumption to save non-renewable resources (to be addressed in the next class).

Activity 3 Saving Petrol

35 mins

Materials Required

A ball or a waste paper ball (to represent nitrogen), blackboard

Instructions

- Begin the activity with a question: *"Can you share 3 examples of petrol being used around you?"* (Expected answers: transport, generators, machines, etc.)
- Ask a follow-up question: *"What happens if all the petrol runs out?"*
- Explain that petrol is an exhaustible natural resource and needs conservation.
- Divide the class into small groups (4–5 students per group). Assign each group a real-life situation where fuel is being wasted or saved:
  - Group 1: A family using a car for short distances instead of walking.
  - Group 2: A driver keeping the engine on while waiting.
  - Group 3: A person riding a motorcycle with under-inflated tyres.
  - Group 4: A person using a bicycle to drop her child off at the bus stop.
- Each group discusses the scenario given to them, thinking about whether petrol is being wasted or saved. After the group discussion, the whole class discusses:
  - How was petrol wasted?
  - What could have been done differently?
- Ask students to think of simple actions they can take to conserve petrol. Write their ideas on the board.
- Together, create a 'Petrol Conservation Pledge' (e.g., "I will walk for short distances, use public transport, and turn off my engine when not needed") on a chart paper.

Assessment

35 mins

Choose the correct option:

1. Which of the following is not a fossil fuel?
   a) Coal
   b) Petroleum
   c) Natural Gas
   d) Biogas
2. What is the primary use of petroleum?
   a) Making jewellery
   b) Producing fuel for vehicles
   c) Manufacturing bricks
   d) Generating hydroelectricity

Answer the following questions:

3. Why is the excessive use of fossil fuels harmful to the environment? Suggest two ways to reduce dependence on them.

   _____
   _____
   _____
   _____

4. LPG and CNG are considered better fuels than coal and petrol. Give two reasons to support this statement.

   _____
   _____
   _____

5. Coal is said to be formed from dead vegetation. Explain how this process takes place over millions of years.

   _____
   _____
   _____
   _____

Answer Key

1. d) Biogas – Biogas is a renewable energy source, while coal, petroleum, and natural gas are fossil fuels.
2. b) Producing fuel for vehicles – Petroleum is refined to obtain petrol and diesel, which are used in transportation.
3. Harmful effects of fossil fuels: They cause pollution and contribute to global warming. Ways to reduce dependence: Use renewable energy sources (solar, wind) and promote fuel-efficient transport.
4. LPG & CNG as better fuels: They produce less pollution and burn efficiently without leaving residue.
5. Formation of coal: Dead plants buried under layers of soil undergo decomposition under heat and pressure over millions of years, turning into coal.

Learning Level Tracker

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Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Science		
Roll No.	Name of the Student	Chapter: Coal and Petroleum		
		Level 1	Level 2	Level 3

Chapter 8 : Force and Pressure

Activity 1 Effect of Force on Objects

35 mins

Materials Required

Rubber bands, balloons (2), sponge (2), small pieces of newspaper (to make small paper balls) per group

Instructions

- Before the activity, collect all the materials required.
- Ask a pair of students to come forward, give them a rubber band and ask them to stretch it from both ends. Ask the pair, "What happens to its shape when you pull it?" Invite another pair and ask them to repeat the activity.
- Release the rubber band and observe if it returns to its original shape.
- Explain to students that elastic materials change shape when force is applied but return to their original shape when the force is released.
- Divide students into 4 groups. Distribute 2 sponges and 2 balloons to each of the groups. You can increase the number of groups based on the materials in hand.
- Ask the groups with the sponge, to press it with their fingers and observe how it changes shape. Then ask the rest of the groups to inflate the balloon they have and press it gently—its shape changes too. Direct the rest of the students' attention to the balloons.
- Ask the students: "Does the balloon return to its original shape when you stop pressing?" Explain to students that some materials (like sponges) are compressible, but return to their original form when pressure is removed.
- Take a small piece of newspaper and fold and crumple it. Explain to students that some materials (like paper, flour and water) are compressible, and do not return to their original form even after pressure is removed.
- Ask students: "What real-life examples can you think of where force changes shape?" (Expected answers: kneading dough, crushing a can, crushing flowers)
- Conclude the activity by explaining that force can cause temporary or permanent changes in shape depending on the material on which the force is being exerted.

Activity 2 Understanding Pressure with a Magic Bottle

35 mins

Materials Required

A plastic bottle with a lid, some water and a nail or a sharp pin

Instructions

- Before the activity, take a plastic bottle and make three small holes at different heights on one side.
- Tell students that today they will experiment with a magic bottle.
- Show students the holes you made in the bottle. Ask students: “If I fill this bottle with water, which hole will throw water the farthest?” Ask students to justify their answers.
- Fill the bottle with water and quickly close the lid.
- Open the lid slowly and observe how water flows out of the holes.
- Ask students: "Which hole is throwing water the farthest?"
- In the end, discuss how pressure increases with depth, making the bottom hole throw water the farthest.
- Ask students to share some such examples that they can think of, from their surroundings (for example dams, water tanks etc.)

Activity 3 Understanding Gravity!

35 mins

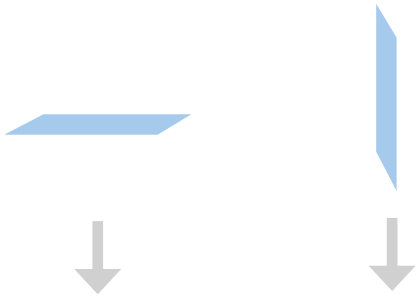
Materials Required

A small ball (or crumpled paper), a flat sheet of paper, a plastic bottle (empty and filled with water), a stopwatch (or mobile timer) and a chair or table for height variation

Instructions

- Begin the activity by asking students some questions – What happens when you drop a pen? Why doesn’t it stay in the air? Why do we stay on the ground instead of floating in air?
- Introduce gravity as the force that pulls objects towards the Earth.
- Hold a ball and a crumpled paper at the same height. Ask students: If I throw both these things together, which one would reach the ground first?
- Drop both things at the same time. Explain that gravity pulls both objects downward, but air resistance can affect how they fall.
- Next, drop an empty plastic bottle and a filled plastic bottle from the same height.
- Ask students: Would they fall at the same speed? (They should, but students may feel the heavier one falls faster.)

- Explain: Gravity pulls all objects equally, but air resistance and shape can make it seem different.
- To make the students understand air resistance, take two similar thin books or two similar cardboards and drop them from the same height as shown in the figure below:



- Ask them which one took more time to reach ground and discuss the possible reason for it.
- Explain air resistance as a force that slows down objects moving through air. It acts in the opposite direction of motion. It depends on the shape of the object.
- Conclude the activity with the following key takeaways:
  - Gravity is a force that pulls objects towards the Earth.
  - All objects fall at the same rate in the absence of air resistance.
  - Gravity affects everything around us, from falling objects to planetary orbits.

Assessment

35 mins

Read the cases given and answer the questions that follow:

Case – 1: A farmer walks on soft mud and notices his feet sink in. However, when he uses a wooden plank under his feet, he doesn't sink as much.

1. Why does the farmer's foot sink when he stands directly on the mud?

   _____

2. How does using a wooden plank reduce sinking?

   _____

3. What concept of pressure does this situation demonstrate?

   _____

Case – 2: A football is lying on the ground. Antony kicks the ball, and it starts rolling. It eventually stops after some time.

4. What force did Antony apply to make the ball move?

   _____

5. Why does the ball stop after rolling for a while?

   _____

6. If there were no friction, what would happen to the ball?

   _____

7. How can Antony make the ball move faster?

   _____

8. Identify 1 other real-life situations where a force is needed to change the state of motion of an object.

   _____

Answer Key

Case – 1

1. The farmer's foot sinks because his weight is applied over a small area, increasing pressure.
2. The wooden plank distributes its weight over a larger area, reducing pressure and preventing sinking.
3. This demonstrates the relationship between pressure and area — the pressure is inversely proportional to the contact area.

Case – 2

4. Antony applied a muscular force to move the ball.
5. The ball stops due to friction between the ball and the ground.
6. Without friction, the ball would keep moving indefinitely.
7. Antony can apply more force to make the ball move faster.
8. Other examples:
   - Pushing a bicycle to start moving.
   - Hitting a cricket ball with a bat.

Learning Level Tracker

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Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Science		
Roll No.	Name of the Student	Chapter: Force and Pressure		
		Level 1	Level 2	Level 3

Chapter 9 : Friction

Activity 1 Feeling Friction!

35 mins

Materials Required

A bottle cap, a smooth newspaper, a piece of cloth/crumbled newspaper, a scale (if available)

Instructions

- Ask students to share their predictions: *"What happens when you push a bottle cap on a smooth surface like paper vs. a rough surface like a piece of wood or cloth?"* Write their predictions on the board.
- Take a bottle cap and ask a student to flick it/push it gently on a fresh newspaper. Measure the distance it moves, using a scale or a handspan if a scale is not available.
- Repeat on different surfaces (crumbled newspaper, cloth, wood etc.)
- Record the distance the cap travels on each surface.
- Ask the following questions and discuss the answers:
  - Which surface allows the bottle cap to travel farthest?
  - Which surface stops the bottle cap quickly? Why does this happen?
- Explain to students the meaning of friction and how the type of surface contributes to a higher or lower force of friction.
- Ask students to share examples of, *"Where do we need more friction? Where do we reduce it?" (Examples: shoes have treads for grip, roads need rough surfaces etc.)*
- Conclude the class by giving students 5 minutes to write the meaning of friction on a small piece of paper before exiting the class (exit tickets).

Activity 2 Slide vs. Roll

35 mins

Materials Required

A small wooden box, a bottle cap and a smooth surface (table/floor)

Instructions

- Begin by revising the concept of friction and introducing its types: static, sliding, and rolling friction. Use simple real-life examples like moving a heavy cupboard (static), sliding a book (sliding), and rolling a suitcase (rolling).

- Take the wooden box on a flat surface. Ask a student volunteer to try pushing the box on the flat surface without moving it. Discuss how this represents static friction, which keeps objects stationary until enough force is applied.
- Next, ask a student to apply some force and slide the box across the surface. Encourage them to compare the effort required to keep the block moving versus starting the motion. Explain that sliding friction is lower than static friction.
- Now, ask the students to place a bottle cap (or pencil) under the box and roll it across the surface. Encourage them to observe how much easier it is to move the block. Relate this to rolling friction.
- Facilitate a discussion using guiding questions:
  - Why is it harder to start moving the block compared to keeping it sliding?
  - Why does the block move more easily when rolling on round objects?
  - Why are wheels and rollers commonly used in transportation and moving heavy objects?
- Conclude by asking each group to summarise their observations and discuss the advantages and disadvantages of each type of friction in daily life.

Assessment

35 mins

Choose the correct option:

1. Which of the following statements about friction is true?
   a) Friction always opposes motion.
   b) Friction helps objects slide indefinitely.
   c) Friction is always harmful.
   d) Friction does not depend on the surface type.
2. Which type of friction is the least?
   a) Static friction
   b) Sliding friction
   c) Rolling friction
   d) Fluid friction
3. Ball bearings are used in machines because they:
   a) Increase friction
   b) Convert rolling friction into sliding friction
   c) Reduce friction by converting sliding friction into rolling friction
   d) Make surfaces rougher

Answer the following questions:

4. Why do cars and bicycles have treaded tyres instead of smooth tyres?

   _____
   _____

5. If a book is pushed on a table, it eventually stops. Why does it not keep moving forever?

   _____
   _____

6. Explain how friction can be both helpful and harmful in everyday life. Give two examples for each.

   _____
   _____
   _____
   _____

Answer Key

1. a) Friction always opposes motion
2. c) Rolling friction
3. c) Reduce friction by converting sliding friction into rolling friction
4. Treaded tyres provide better grip by increasing friction between the tyre and the road, preventing skidding, especially on wet or uneven surfaces.
5. The book stops due to friction between its surface and the table. This force opposes motion and gradually reduces the book's speed to zero.
6. Friction is helpful in:
    - Walking (prevents slipping)
    - Writing (pen/pencil grip on paper)

    Friction is harmful in:
    - Wear and tear of machine parts
    - Wastage of energy in the form of heat

Learning Level Tracker

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Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Science		
Roll No.	Name of the Student	Chapter: Friction		
		Level 1	Level 2	Level 3

Chapter 10 : Sound

Activity 1 Feeling the Sound

35 mins

Materials Required

Rubber band, box, steel plate, spoon

Instructions

- Begin the activity by clapping your hands loudly and ask students to also clap their hands. Then, ask students:
  - What did you hear?
  - What do you think caused the sound?
- Introduce the term vibration: *Vibration is a rapid back-and-forth movement of an object around a central position (or equilibrium point). In simpler words, when something moves quickly to and fro or shakes repeatedly, it is said to be vibrating.*
- Explain to students that vibration is essential for sound to be produced.
- Keep the following things at three designated areas:
  - Area 1: A note on a wall with instructions: Place your ear on the wall and knock on the wall with your fingers. Can you hear anything?
  - Area 2: Stretch a rubber band over a pencil box. Students are to pluck it and observe the movement and sound.
  - Area 3: A bowl filled with water and a spoon. Students are to stir the water gently and observe the vibrations.
- Once the students have visited all the areas, have a discussion with the whole class with the following questions:
  - What did you feel when you touched the object?
  - Could you see or feel something moving?
  - When did the sound stop? (When vibration stopped)
- Conclude the activity by explaining to students that sound is produced when objects vibrate. If there is no vibration, there is no sound.

Activity 2 Sound under Water

35 mins

Materials Required

A large bowl, or bucket filled with clean water, a small metal object (like a spoon) or two small stones

Instructions

- Begin the activity with a question: "Can you hear sounds under water?"
- Explain briefly that sound needs a medium to travel.
- Fill a bucket or large bowl with water.
- Ask a few students to come forward, put their ear close to (but not inside) the water surface.
- Ask another student to tap a stone or a spoon against the wall of the bowl.
- Students to listen carefully and observe: Is the sound louder, softer, sharper, or duller?
- Ask students:
  - Was the sound louder or softer underwater compared to in air?
  - Was the sound clearer or muffled?
  - Does sound travel faster in water than in air?
- Explain to students that in water, particles are closer together, allowing sound waves to pass through faster and making the sound appear louder and clearer.

Activity 3 Noise Mapping

35 mins

Materials Required

Notebook, coloured pens/pencils

Instructions

- Begin the activity with a short discussion on what noise pollution is, its sources, and effects on health (e.g., stress, hearing issues, sleep disruption).
- Divide the students into groups and assign each group an area (canteen, playground, classroom, corridor, near the main road, etc.). If these are not available/accessible, you can assign other areas around (like a park, a house, a main road, a shop etc.) Please ensure the safety of all the students.
- Give groups 10 minutes to observe the area and note:
  - Main sources of sound
  - Whether the sound is continuous, intermittent, or sudden

- After coming back to class, ask groups to make a map of the area and mark their findings using colour codes:
  - Green = quiet
  - Yellow = moderate
  - Red = noisy
- End the activity with a discussion on the following questions:
  - Which areas are the noisiest?
  - How can noise be reduced in those areas?
  - What changes would make the school a quieter, healthier place?

Assessment

35 mins

Choose the correct option:

1. Sound cannot travel through:
   a) Solid
   b) Liquid
   c) Gas
   d) Vacuum
2. The number of vibrations per second is called:
   a) Pitch
   b) Amplitude
   c) Frequency
   d) Loudness
3. The unit of loudness is:
   a) Hertz
   b) Decibel
   c) Newton
   d) Metre

Write T for True and F for False:

4. Sound travels faster in liquids than in solids.
5. Human voice is produced by the vocal cords.
6. The higher the frequency, the lower the pitch.
7. Sound can be produced only through vibrations.
8. Noise pollution can affect human health.

Answer the following questions:

9. Why do we see lightning before we hear thunder during a storm?

   _____
   _____
   _____
   _____

10. A metal plate is struck and immediately held tightly—why does the sound stop?

    _____
    _____
    _____
    _____

Answer Key

1. d) Vacuum
2. c) Frequency
3. b) Decibel
4. T
5. T
6. F
7. T
8. T
9. Light travels faster than sound. Hence, we see the lightning first, then hear the thunder.
10. Holding the plate stops its vibration, so it stops producing sound.

Learning Level Tracker

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Level 1: Not able to solve problems and having difficulty comprehending the problem

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Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Science		
Roll No.	Name of the Student	Chapter: Sound		
		Level 1	Level 2	Level 3

Chapter 4 : Combustion and Flame

Activity 1 Combustion Sorting

35 mins

Materials Required

Blackboard, chalk

Instructions

- Begin the activity by asking: *"What happens when a candle burns? Why doesn't a stone burn?"*
- Explain to students the meaning of combustion.
- Divide the students into groups.
- Draw a table on the board with names of some combustible and non-combustible items (for example: paper, wood, metal spoon, candle, stone, plastic, matchbox, glass).
- Start with one item in the table and ask a group to predict whether it is combustible or not. Write their answer in front of the item. Invite the rest of the groups to challenge the answer if they feel it is incorrect. If the answer is incorrect, the team that made the guess loses a point and the team that challenged it wins a point.
- Conclude the class by discussing: What makes a substance combustible? Why are some materials like stone and glass non-combustible?

Activity 2 Understanding Acid Rain

35 mins

Materials Required

Two clear cups, chalk pieces, water, vinegar or lemon juice (to simulate acid rain)

Instructions

- Begin the activity by informing students that today we will be learning about acid rain.
- Fill both cups halfway with water.
- In Cup A, add a few drops of vinegar or lemon juice (this simulates acid rain).
- In Cup B, leave plain water (acts as normal rain).
- Drop one chalk piece in each cup.
- Ask students to observe the changes after 5–10 minutes (chalk in vinegar will fizz or dissolve faster).

- Ask students to record:
  - Which cup showed more bubbling/fizzing?
  - What does this tell us about how acid rain affects buildings/statues made of marble (like the Taj Mahal)?
- Extend the discussion to its effects on soil, water bodies, and plants.
- Conclude the activity by discussing the following questions and giving explanations:
  - What causes acid rain in real life?
  - What can we do to reduce it?

Activity 3 Two Corners – True or False

35 mins

Materials Required

List of true/false statements

Before the activity

Label two corners of the classroom, one as "TRUE" and the other as "FALSE"

Instructions

- Explain the rules of the game to the students:
  - You will read a statement from the chapter.
  - Students have 5 seconds to decide if it is true or false.
  - They must walk/run to the corner they believe is correct.
- Read each statement aloud. Once all students have chosen a corner, reveal the correct answer and explain briefly.
- Sample Statements:
  - Paper is a non-combustible material. → (False)
  - Combustion always produces a flame. → (False)
  - LPG is an example of a gaseous fuel. → (True)
  - A fuel catches fire only when it reaches its ignition temperature. → (True)
  - Water is a good extinguisher for oil fires. (False)
  - Glass can burn if heated enough. (False)
  - Incomplete combustion produces carbon monoxide. (True)
  - The outermost zone of a flame is the hottest. (True)
  - Spontaneous combustion needs a matchstick to start. (False)
  - Hydrogen has a very high calorific value. (True)
- Play this activity for fun, along with explaining important aspects to students or conduct it to assess students' understanding of the concepts.
- Conclude the activity by asking students the following:
  - Which statements surprised you?
  - What did you learn about combustion and fire safety?

Assessment

35 mins

Choose the correct option:

1. Which of the following is a combustible substance?
   a) Glass
   b) Iron rod
   c) Paper
   d) Stone
2. Which fuel has the highest calorific value?
   a) Kerosene
   b) Wood
   c) Cow dung cake
   d) Hydrogen
3. The hottest zone of a candle flame is the:
   a) Outer zone
   b) Middle zone
   c) Innermost zone
   d) Yellow zone
4. A fire in an electrical appliance should be extinguished using:
   a) Water
   b) Oil
   c) Petrol
   d) CO_2 extinguisher

Answer the following questions:

5. Why should water not be used to extinguish a fire caused by petrol?

   _____
   _____

6. Why do some substances burn with flames while others don't?

   _____
   _____

7. A piece of paper burns easily, but a log of wood does not catch fire easily. Explain why.

   _____
   _____

8. Why does a candle not burn when covered with a glass jar?

   _____
   _____
   _____

Answer Key

1. c) Paper
2. d) Hydrogen
3. a) Outer zone
4. d) CO_2 extinguisher
5. Water is heavier than petrol and sinks below it; petrol keeps floating and burning on top.
6. Some substances burn with flames because they produce combustible vapours, while others that do not vaporise on heating burn without flames.
7. Paper has a low ignition temperature, so it burns easily. Wood has a higher ignition temperature and requires more heat to start burning.
8. A candle needs oxygen to burn. Covering it with a glass jar cuts off the oxygen supply, so the flame goes out.

Learning Level Tracker

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Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Science		
Roll No.	Name of the Student	Chapter: Combustion and Flame		
		Level 1	Level 2	Level 3

Chapter 5 : Conservation of Plants and Animals

Activity 1 Vanishing Forests

35 mins

Materials Required

Blackboard, chalk, books to represent a mini forest

Instructions

- Begin the activity with a question: “What do you think a forest gives us?” Let students respond freely — shade, animals, oxygen, food, shelter, rain, etc.
- List all the answers students give on the board under “Benefits of Forests”. Then ask, “What would happen if these trees disappeared?”
- Turn a part of your classroom into a "mini forest". Place books in an area in the class. Tell students that each book represents a tree, and we will listen to a story related to it.
- Now begin the story: “Imagine yourselves as the animals and people living in this mini forest. It is full of life. Everyone lives in harmony. But now, someone wants to cut trees for farming, roads, and buildings.”
- Ask a student to remove the corresponding number of trees when the related instructions are given:
  - A road is being built → 6 trees removed
  - Wood is needed for furniture → 2 trees gone
  - City is expanding → more trees gone
- You can give the instructions more number of times to make the trees disappear.
- After 60% of the mini forest has disappeared, discuss with students its effects: animals lose shelter, tribal people lose their homes, soil is left bare etc.
- And then ask the following questions:
  - “How did it feel when your trees were taken away?”
  - “What problems did the people and animals face?”
  - “Why is deforestation harmful?”
- List students’ answers under “Effects of Deforestation” on the board, next to its benefits and ask students to read them all once again.

Activity 2 Paper Rescue

35 mins

Materials Required

Old newspapers or used paper from notebooks, rough sheets, or worksheets, colours or sketch pens

Instructions

- Begin the activity with a question: “Do you throw away paper with just one or two lines written on it?” Record students’ answers on the board.
- Explain to students that, “Today, we’ll learn how to reuse paper instead of throwing it — and help save trees!”
- Divide students into pairs and ask them to take out a used sheet of paper for this activity. If this is not possible, you can also consider bringing newspapers for this activity.
- Challenge the pairs to turn it into something useful or creative. You can give them some ideas such as:
  - A bookmark
  - A small paper bag/envelope
  - A reminder card
  - A mini notepad (by stapling cut pieces)
- Ask them to decorate it with drawings or positive messages like: I saved a tree today, think before you toss etc.
- Let a few students show what they made and how they reused paper. Display their creations in a corner of the classroom.
- This activity will help students understand the value of reusing paper and reflect on how small actions can protect the environment.

Activity 3 Guess the Place

35 mins

Materials Required

List of statements, blackboard, chalk

Before the activity

Label three corners of the classroom as wildlife sanctuary, national park and biosphere reserve

Instructions

- Briefly explain the three types of places where animals are protected:
  - Wildlife Sanctuary – Animals are protected, limited human activity is allowed
  - National Park – Protection of animals and plants; no human activity allowed
  - Biosphere Reserve – Large area with wildlife, forests, and even people living in buffer zones
- Read aloud a clue to all the students. Example:
  - "This area protects wild animals, and local people can graze cattle here."
  - "This place allows no cutting of trees or human settlement."
  - "It includes zones for research, farming, and tourism."
- Some sample clues:
  - "You can find core, buffer, and transition zones here." → Biosphere Reserve
  - "Kaziranga is one." → National Park
  - "It allows some human activities like collecting firewood." → Wildlife Sanctuary
  - "Strictly protected; no hunting or grazing allowed." → National Park
- After the activity, ask students to share what they learnt about the three places. Draw a table on the board highlighting the key differences. A sample is given below:

Feature	Sanctuary	National Park	Biosphere Reserve
Human activity	Limited allowed	Not allowed	Allowed in some zones
Area type	Moderate	Larger	Largest
Focus	Animals	Animals + Plants	Full ecosystems

Assessment

35 mins

Choose the correct option:

1. Which of the following is not a natural cause of deforestation?
   a) Forest fire
   b) Drought
   c) Building roads
   d) Cyclone
2. Which of the following areas is the largest in terms of protection?
   a) Zoo
   b) Wildlife Sanctuary
   c) National Park
   d) Biosphere Reserve
3. Which species is found only in a particular area and nowhere else?
   a) Endangered
   b) Extinct
   c) Endemic
   d) Migratory
4. The Red Data Book contains:
   a) Medicinal plant data
   b) Wildlife sanctuary records
   c) Endangered species lists
   d) National park maps

Answer the following questions:

5. Explain how deforestation can lead to frequent floods and droughts.

_____
_____
_____
_____

6. Why is biodiversity important for maintaining ecological balance?

_____
_____
_____
_____
_____
_____

Answer Key

1. c) Building roads
2. d) Biosphere Reserve
3. c) Endemic
4. c) Endangered species lists
5. Deforestation disturbs the natural water cycle. Trees absorb water from the soil and release it into the atmosphere through transpiration, which helps in cloud formation and rainfall. When trees are removed, less moisture is released, leading to reduced rainfall and droughts.

   At the same time, without trees to hold the soil and absorb rainwater, heavy rain results in faster surface runoff, which causes soil erosion and flooding. Thus, deforestation increases the chances of both droughts and floods.
6. Biodiversity refers to the variety of living organisms, including plants, animals, and microorganisms, in an ecosystem. It is essential because each species has a specific role — for example, plants produce food, herbivores consume plants, and predators control the herbivore population.

   Loss of any one species can disrupt food chains and affect the survival of others, leading to an imbalance in the ecosystem. Biodiversity also ensures resilience to environmental changes, promotes pollination, seed dispersal, and nutrient cycling, and provides resources like medicine and food for humans.

Learning Level Tracker

Keep a record of unit assessment results in the tracker.

As you conduct assessments based on the activities suggested, put a tick mark as per the following:

Level 1: Not able to solve problems and having difficulty comprehending the problem

Level 2: Solves most of the problems with external support

Level 3: Solves problems independently

Name of the School:	**UDISE:**
Block:	**District:**
Name of the Teacher:	**Assessment Date:**

Class: 8		Subject: Science		
Roll No.	Name of the Student	Chapter: Conservation of Plants and Animals		
		Level 1	Level 2	Level 3

Chapter 6 : Reproduction in Animals

Activity 1 Match the Mode

35 mins

Materials Required

Paper slips with the names of organisms written on them

Instructions

- Introduce the concept of sexual and asexual reproduction or internal and external fertilisation in animals.
- Divide the class into groups.
- Give each group a set of paper slips with names of organisms (e.g., Human, Frog, Amoeba, Hydra, Hen, Dog).
- Students have to write the name of their groups on the slips. Then, sort and paste them under the correct categories on the board:
  - Sexual / Asexual reproduction
  - Internal / External fertilisation
- Discuss the answers with the groups and ask them to justify their sorting.

Activity 2 Egg or Baby?

35 mins

Materials Required

Old newspapers, a box or a bowl

Instructions

- Write a few names of animals on the board that give birth like humans and others that lay eggs. Write them in a jumbled manner.
- Ask students to pick any animal of their choice and say whether they lay eggs or give birth like humans. Based on their answers, make a table on the board.
- After all students are done, ask students: “Do all animals give birth to babies like humans?”
- Explain that some animals give birth to babies (viviparous), while others lay eggs (oviparous).
- After the explanation, go back to the table made based on students’ answers, go through each and correct mistakes through discussion.

- Ask students the following while referring to the table:
  - Which group had more animals?
  - Do all egg-laying animals care for their young ones?
  - Which group mostly shows internal fertilisation?
- Conclude the activity by summarising what students learnt: “Viviparous animals give birth to live young ones. Oviparous animals lay eggs. Both types ensure survival of the species in different ways.”

Activity 3 Pick and Match!

35 mins

Materials Required

Two bowls, chits with prompts/questions (e.g., "Hydra reproduces by...", "Fertilisation produces...") and chits with answers (e.g., "Budding", "Zygote")

Before the activity

Prepare around 10–15 prompts for Bowl 1 based on the main points of the topic and corresponding answers for Bowl 2. Ensure each prompt has one unique, correct answer to maintain clarity.

Instructions

- Begin the activity by dividing students into small teams (groups of 4–5 students).
- A volunteer from each team takes turns to pick:
  - One chit from Bowl 1 (prompt)
  - One chit from Bowl 2 (answer)
- After picking, the team reads the chits aloud and discusses within 30 seconds if the prompt and answer match correctly.
- If correct, the team explains the concept to the class in one or two sentences.
- If incorrect, the chits are returned to the respective bowls, and the next team takes their turn.
- Continue the activity until all prompts are matched correctly or the time limit (say 30 minutes) is reached.
- After the activity, quickly summarise the key concepts covered in the activity, to reinforce learning.
- Example prompts and answers:

Prompts (Bowl 1)	Answers (Bowl 2)
"Hydra reproduces by..."	Budding
"Fertilisation produces..."	Zygote
"The type of fertilisation in frogs is..."	External fertilisation
"Internal fertilisation occurs in..."	Humans
“Organism that gives birth to young ones..."	Viviparous
“Asexual reproduction does not involve..."	Gametes

Assessment

35 mins

Write T for True and F for False:

1. The zygote is a single cell. (____)
2. Amoeba reproduces by budding. (____)
3. Sperm and egg are both gametes. (____)
4. In external fertilisation, the embryo develops inside the female body. (____)
5. A foetus can be identified by its body parts. (____)
6. Internal fertilisation takes place in humans, cows, and hens. (____)
7. In budding, the new individual grows as an outgrowth from the parent. (____)
8. A sperm is larger in size than an ovum. (____)
9. The embryo gets embedded in the uterus for development. (____)
10. Only viviparous animals undergo fertilisation. (____)

Answer the following questions:

11. What is metamorphosis? Give one example.

    _____
    _____
    _____

12. Describe the function of the uterus in the female reproductive system.

    _____
    _____
    _____

13. Why do frogs and fish lay hundreds of eggs while hens lay only one or two at a time?

    _____
    _____
    _____
    _____

14. Explain why all the eggs laid by animals during external fertilisation do not develop into new individuals.

    _____
    _____
    _____
    _____

Answer Key

1. T
2. F (Amoeba reproduces by binary fission)
3. T
4. F
5. T
6. T
7. T
8. F (Sperm is much smaller than ovum)
9. T
10. F (Oviparous animals also undergo fertilisation)
11. Metamorphosis is a biological process in which an animal undergoes a drastic change in body form during its development from larva to adult.

    An example is a butterfly, which changes from an egg to caterpillar, then pupa, and finally into an adult butterfly.
12. The uterus is the site where the fertilised egg (zygote) gets embedded and develops into an embryo.

    It provides nutrition and protection to the growing embryo until birth.
13. Frogs and fish lay many eggs because external fertilisation occurs in water where many eggs and sperms are lost to water movement and predators.
14. Eggs and sperms released in water can be washed away or eaten by other animals, so not all fertilised eggs survive.

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Class: 8		Subject: Science		
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Government of Meghalaya
Education Department

DERT
DIRECTORATE OF EDUCATIONAL
RESEARCH & TRAINING

Reach to Teach