

5TH: SYLLABUS

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5th: Syllabus

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1. English

1. Sentences

A sentence is a group of words that expresses a complete thought. It must have at least a subject and a verb.

Examples:

- Declarative Sentence:** The cat is sleeping.
- Interrogative Sentence:** Where is the cat?
- Imperative Sentence:** Please close the door.
- Exclamatory Sentence:** What a beautiful day!

Questions:

1. Identify the type of sentence: "Can you help me?"
2. Write a declarative sentence about your favorite animal.
3. Convert this declarative sentence to an interrogative: "She loves chocolate."
4. Write an exclamatory sentence expressing excitement.

2. Noun

A noun is a word that represents a person, place, thing, or idea.



Types of Nouns:

- Common Noun:** General names (e.g., teacher, city).
- Proper Noun:** Specific names (e.g., Mrs. Smith, Paris).
- Collective Noun:** A group of individuals (e.g., team, flock).
- Abstract Noun:** Names an idea or quality (e.g., happiness, freedom).

Examples:

- Common Noun:** The dog barked.
- Proper Noun:** New York is a busy city.
- Collective Noun:** The team won the match.
- Abstract Noun:** Courage is important.

Questions:

1. Identify the common noun in this sentence: "The children are playing."
2. Provide three examples of proper nouns.
3. What is a collective noun? Give an example.
4. Write a sentence using an abstract noun.



3. Pronoun

A pronoun is a word that replaces a noun to avoid repetition.

Types of Pronouns:

- Personal Pronouns:** I, you, he, she, it, we, they.
- Possessive Pronouns:** my, your, his, her, its, our, their.
- Demonstrative Pronouns:** this, that, these, those.
- Interrogative Pronouns:** who, what, which.

Examples:

- Personal Pronoun:** Maria loves her dog. **She** takes it for a walk.
- Possessive Pronoun:** This is **my** book.
- Demonstrative Pronoun:** **Those** are my friends.
- Interrogative Pronoun:** **Who** is coming to the party?

Questions:

1. Replace the noun with a pronoun: "John is a good student. John studies hard."
2. Identify the possessive pronoun: "That is her backpack."
3. Write a sentence using a demonstrative pronoun.
4. What is the interrogative pronoun in this sentence: "Which book do you prefer?"

4. Adjective

An adjective is a word that describes or modifies a noun, providing more detail.

Types of Adjectives:

- Descriptive Adjective:** Describes qualities (e.g., tall, blue).
- Quantitative Adjective:** Indicates quantity (e.g., few, many).
- Demonstrative Adjective:** Points to specific nouns (e.g., this, that).
- Possessive Adjective:** Shows ownership (e.g., my, your).

Examples:

- Descriptive Adjective:** The **blue** sky is beautiful.
- Quantitative Adjective:** I have **three** apples.
- Demonstrative Adjective:** **That** car is fast.
- Possessive Adjective:** My dog is friendly.

1. Identify the adjective in this sentence: "The tall building is impressive."
2. Write a sentence using a quantitative adjective.
3. Provide an example of a demonstrative adjective in a sentence.
4. Explain the role of adjectives in enhancing the meaning of nouns.

5. Verb

A verb is a word that expresses an action or a state of being.

Types of Verbs:

- Action Verb:** Describes an action (e.g., run, jump).
- Linking Verb:** Connects the subject to a subject complement (e.g., is, are, seem).
- Helping Verb:** Assists the main verb (e.g., has, will, can).

Examples:

- Action Verb:** She **runs** every morning.
- Linking Verb:** He **is** a teacher.
- Helping Verb:** They **are** studying for the exam.

Questions:

1. Identify the verb in the following sentence: "The dog barked loudly."
2. Write a sentence using an action verb.
3. Provide an example of a linking verb in a sentence.
4. What is the function of helping verbs in a sentence?

6. Preposition

A preposition is a word that shows the relationship between a noun (or pronoun) and other words in a sentence.

Examples:

- The book is **on** the table.
- She walked **to** the park.
- The cat is hiding **under** the bed.

Questions:

1. Identify the preposition in this sentence: "The dog is in the garden."
2. Write a sentence using a preposition of place.
3. Provide an example of a preposition of time in a sentence.
4. Explain the role of prepositions in a sentence.

7. Conjunctions

A conjunction is a word that connects words, phrases, or clauses in a sentence.

Types of Conjunctions:

- Coordinating Conjunctions:** and, but, or, nor.
- Subordinating Conjunctions:** although, because, since, while.

Examples:

- Coordinating Conjunction:** I want to go for a walk, **but** it's raining.
- Subordinating Conjunction:** **Although** it was late, she continued working.

Questions:

1. Identify the conjunction in the sentence: "I like apples and oranges."
2. Write a sentence using a subordinating conjunction.
3. Provide an example of a coordinating conjunction in a sentence.
4. Explain how conjunctions enhance sentence structure.

8. Adverb (Place and Types)

An adverb modifies a verb, adjective, or another adverb, providing more detail about how, when, where, or to what extent something happens.

Types of Adverbs:

- 
- Adverb of Manner:** Describes how an action is performed (e.g., quickly, slowly).
 - Adverb of Time:** Indicates when an action occurs (e.g., now, later).
 - Adverb of Place:** Specifies where an action takes place (e.g., here, there).
 - Adverb of Degree:** Describes the intensity or degree of an action or adjective (e.g., very, quite).

Examples:

- Adverb of Manner:** He ran **quickly** to catch the bus.
- Adverb of Time:** She will come **tomorrow**.
- Adverb of Place:** The cat is **here**.
- Adverb of Degree:** She is **very** talented.

Questions:

1. Identify the adverb in the sentence: "She sings beautifully."
2. Write a sentence using an adverb of time.

3. Provide an example of an adverb of place in a sentence.
 4. Explain how adverbs enhance the meaning of verbs.

9. Determiners

Determiners are words placed in front of nouns to clarify what the noun refers to. They can indicate quantity, possession, definiteness, and more.

Types of Determiners:

- Articles:**
 - o Indefinite: a, an
 - o Definite: the
 - Demonstratives:**
 - o this, that, these, those
 - Possessives:**
 - o my, your, his, her, its, our, their
 - Quantifiers:**
 - o some, many, few, all, several



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Examples:

- Article:** I saw a dog.
 - Demonstrative:** This book is interesting.
 - Possessive:** My sister is coming.
 - Quantifier:** There are many apples in the basket.

Questions:

1. Identify the determiner in the sentence: “The cat sat on the mat.”
 2. What type of determiner is used in the sentence: “I have some friends.”?
 3. Write a sentence using a demonstrative determiner.
 4. List three examples of possessive determiners.

2. Mathematics

1. Shapes and Spatial Understanding

Shapes and spatial understanding involve recognizing, identifying, and analyzing different geometric shapes and their properties. This topic helps students develop visualization skills.

Key Concepts:

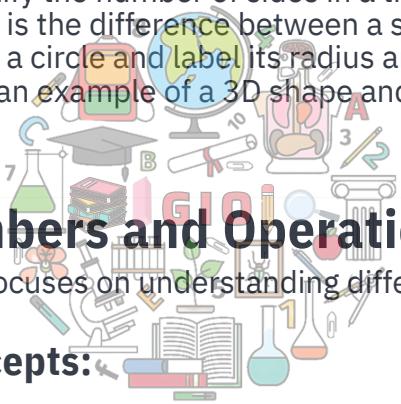
- 2D Shapes:** Flat shapes like squares, rectangles, circles, and triangles.
- 3D Shapes:** Solid shapes like cubes, spheres, cones, and cylinders.
- Properties of Shapes:** Understanding the attributes such as sides, angles, and symmetry.

Examples:

- Square:** Four equal sides and four right angles.
- Circle:** A round shape with no corners; defined by its radius.

Questions:

1. Identify the number of sides in a triangle.
2. What is the difference between a square and a rectangle?
3. Draw a circle and label its radius and diameter.
4. Give an example of a 3D shape and describe its properties.



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2. Numbers and Operations

This topic focuses on understanding different types of numbers and performing arithmetic operations.

Key Concepts:

- Types of Numbers:** Natural numbers, whole numbers, integers, rational numbers.
- Operations:** Addition, subtraction, multiplication, and division.

Examples:

- Addition:** $5 + 3 = 8$
- Subtraction:** $10 - 6 = 4$
- Multiplication:** $4 \times 2 = 8$
- Division:** $12 \div 3 = 4$

Questions:

1. What is the sum of 25 and 37?

2. Subtract 15 from 50 and write the answer.
3. Multiply 6 by 7 and provide the result.
4. Divide 81 by 9.

3. Mental Arithmetic

Mental arithmetic involves performing calculations in your head without the use of calculators or paper. This skill enhances numerical fluency and quick thinking.

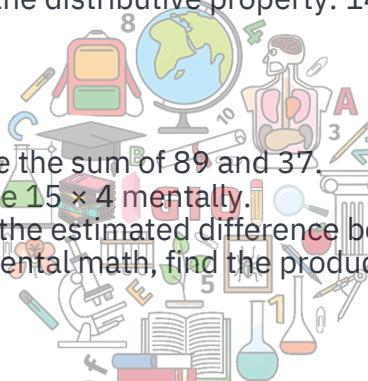
Key Concepts:

- Estimation:** Rounding numbers to make calculations easier.
- Mental Math Strategies:** Techniques for quick calculations, such as breaking down numbers.

Examples:

- Estimating the sum of 48 and 34 by rounding to $50 + 30 = 80$.
- Using the distributive property: 14×6 can be calculated as $(10 \times 6) + (4 \times 6) = 60 + 24 = 84$.

Questions:

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1. Estimate the sum of 89 and 37.
 2. Calculate 15×4 mentally.
 3. What is the estimated difference between 150 and 78?
 4. Using mental math, find the product of 7 and 8.

4. Fractional Numbers

Fractional numbers represent parts of a whole and are expressed as a ratio of two integers.

Key Concepts:

- Types of Fractions:**
 - Proper Fractions:** Numerator is less than the denominator (e.g., $\frac{3}{4}$).
 - Improper Fractions:** Numerator is greater than or equal to the denominator (e.g., $\frac{5}{3}$).
 - Mixed Numbers:** A whole number combined with a proper fraction (e.g., $2\frac{1}{2}$).

Examples:

- Proper Fraction:** $\frac{1}{2}$ (half of a whole).
- Improper Fraction:** $\frac{7}{4}$ (seven quarters).
- Mixed Number:** $3\frac{1}{4}$ (three whole and one quarter).

Questions:

1. Write a proper fraction for the shaded part of a shape divided into four equal parts.
2. Convert the improper fraction $9/5$ to a mixed number.
3. Add the fractions $1/3$ and $1/6$ and provide the result.
4. Explain how to compare the fractions $2/3$ and $3/5$.

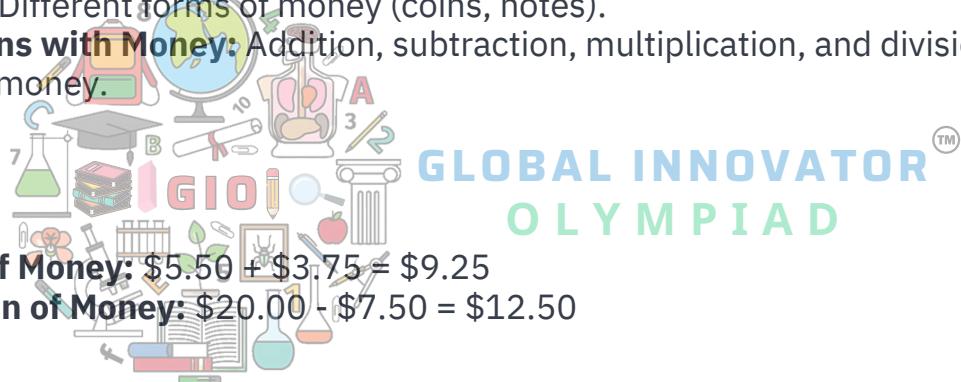
5. Money

Understanding money involves recognizing different denominations, performing calculations involving currency, and understanding basic financial concepts.

Key Concepts:

- Currency:** Different forms of money (coins, notes).
- Calculations with Money:** Addition, subtraction, multiplication, and division in the context of money.

Examples:



- Addition of Money:** $\$5.50 + \$3.75 = \$9.25$
- Subtraction of Money:** $\$20.00 - \$7.50 = \$12.50$

Questions:

1. If you have \$15.00 and you buy a book for \$8.50, how much money do you have left?
2. Calculate the total cost if you buy three items priced at \$2.50 each.
3. If you earn \$100 and spend \$30 on groceries, how much do you have remaining?
4. What is the total amount if you have a \$10 bill, a \$5 bill, and three \$1 coins?

3.Science

1. Super Senses

Super senses refer to the heightened capabilities of certain animals and humans in detecting and interpreting sensory information.

Key Concepts:

- **Senses:** Humans typically have five senses: sight, hearing, taste, touch, and smell.
- **Super Senses in Animals:** Some animals have enhanced senses that help them survive in their environments.

Examples:

- **Dogs:** Have a highly developed sense of smell, which allows them to detect scents at much lower concentrations than humans.
- **Bats:** Use echolocation, emitting sounds and interpreting the echoes to navigate and hunt in the dark.

Questions:

1. Name the five senses of humans.
2. How does a dog's sense of smell compare to that of a human?
3. Explain how bats use echolocation.
4. Give an example of an animal with super senses and describe its advantage.™

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2. From Tasting to Digesting

This topic explores the human digestive system, focusing on how food is processed from ingestion to absorption.

Key Concepts:

- **Digestive System:** A group of organs working together to convert food into energy and nutrients.
- **Process of Digestion:**
 1. **Ingestion:** Taking food into the mouth.
 2. **Digestion:** Breaking down food mechanically (chewing) and chemically (enzymes).
 3. **Absorption:** Nutrients are absorbed into the bloodstream.
 4. **Elimination:** Waste products are expelled from the body.

Examples:

- **Mouth:** Where digestion begins; enzymes in saliva start breaking down carbohydrates.
- **Stomach:** Acid and enzymes further digest food.



Questions:

1. Describe the journey of food through the digestive system.
2. What role do enzymes play in digestion?
3. Explain the difference between mechanical and chemical digestion.
4. Why is it important for the body to absorb nutrients?

3. Seeds and Seeds

This topic focuses on the structure, function, and importance of seeds in the life cycle of plants.

Key Concepts:

- Seed Structure:** Seeds consist of three main parts: the seed coat, the embryo, and the cotyledons (seed leaves).
- Germination:** The process by which a seed develops into a new plant.

Examples:

- Types of Seeds:** Different plants produce different types of seeds, such as beans, nuts, and grains.
- Germination Conditions:** Seeds need moisture, warmth, and sometimes light to germinate.

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Questions:

1. What are the three main parts of a seed?
2. Describe the process of germination.
3. Why are seeds important for plants?
4. Provide examples of seeds and the plants they grow into.

4. Experiments with Water

This topic explores the properties of water and how it behaves in different situations through hands-on experiments.

Key Concepts:

- Properties of Water:** Water is unique for its ability to exist in three states (solid, liquid, gas) and its role as a solvent.
- Experiments:** Simple experiments can demonstrate water's properties, such as surface tension and density.



Examples:

- Surface Tension:** Dropping water on a coin to see how many drops it holds.
- Water Cycle:** Observing evaporation and condensation in a closed container.

Questions:

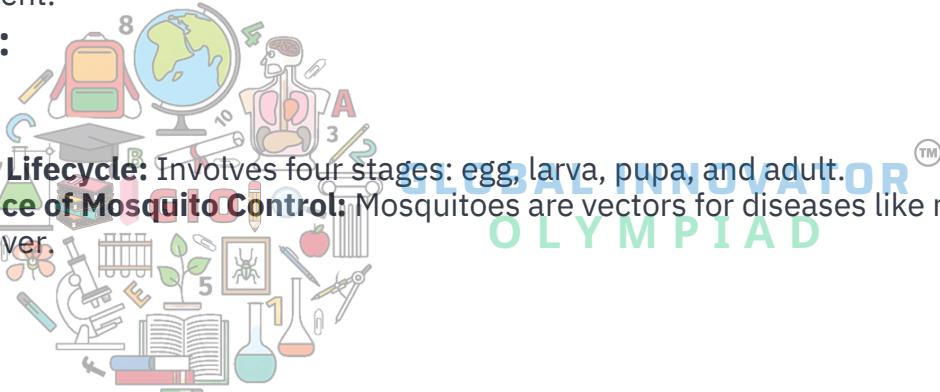
1. Describe an experiment to demonstrate surface tension in water.
2. What happens to water when it freezes?
3. Explain the water cycle using simple terms.
4. How can you demonstrate the concept of density using water?

5. A Treat for Mosquitoes

This topic discusses the biology of mosquitoes, their lifecycle, and the impact they have on humans and the environment.

Key Concepts:

- Mosquito Lifecycle:** Involves four stages: egg, larva, pupa, and adult.
- Importance of Mosquito Control:** Mosquitoes are vectors for diseases like malaria and dengue fever.



Examples:

- Breeding Habitats:** Mosquitoes lay eggs in stagnant water.
- Control Methods:** Use of insect repellent, mosquito nets, and eliminating standing water.

Questions:

1. What are the four stages of a mosquito's life cycle?
2. Why are mosquitoes considered a public health concern?
3. Describe one method for controlling mosquito populations.
4. How do environmental conditions affect mosquito breeding?

4. Social Science

1. A Snake Charmer's Story

Overview

This story explores the life of a snake charmer and the cultural significance of snake charming in certain regions. It provides insights into traditional practices and the relationship between humans and animals.

Key Concepts:

- Cultural Practices:** Snake charming is often seen as a traditional art form in many cultures, particularly in India.
- Interactions with Nature:** The story highlights the bond between snake charmers and their snakes, showcasing the skills required to handle them.

Questions:

1. Describe the lifestyle of a snake charmer as depicted in the story.
2. What skills are necessary for a snake charmer?
3. Discuss the cultural significance of snake charming in certain communities.
4. How does the story portray the relationship between humans and snakes?

2. Mangoes Round the Year

Overview

This topic focuses on the significance of mangoes, their cultivation, and their importance in Indian culture. It discusses the different varieties and the seasonal availability of mangoes.

Key Concepts:

- Mango Varieties:** Different types of mangoes (e.g., Alphonso, Dasher) and their unique flavors.
- Cultural Importance:** Mangoes are often referred to as the “king of fruits” and play a significant role in festivals and traditions.

Questions:

1. What are some popular varieties of mangoes mentioned in the text?
2. Why are mangoes considered culturally significant in India?
3. Describe the seasonal cycle of mango cultivation.
4. How do mangoes contribute to the local economy?



3. Every Drop Counts

Overview

This topic emphasizes the importance of water conservation and the various methods to save water in daily life. It raises awareness about the scarcity of water and its impact on communities.

Key Concepts:

- Water Scarcity:** Understanding the causes of water scarcity and its effects on the environment and human life.
- Conservation Techniques:** Practical ways to save water at home and in the community.

Questions:

1. Discuss the importance of water conservation.
2. What are some practical methods to save water?
3. How does water scarcity affect agriculture and daily life?
4. Why is it essential to raise awareness about water conservation?

4. Up You Go

Overview

This topic discusses the concept of air and its properties, including the importance of air in our daily lives and various phenomena associated with it, such as flight and weather patterns.

Key Concepts:



- Properties of Air:** Understanding that air occupies space, has weight, and can exert pressure.
- Applications of Air:** How air is essential for breathing, weather, and flight.

Questions:

1. What are the main properties of air?
2. Explain how air pressure affects weather patterns.
3. Discuss the role of air in the process of flight.
4. Why is air important for living organisms?



5. Mental Ability

1. Number Series

Number series problems involve identifying patterns in a sequence of numbers. The objective is to determine the next number in the series based on the observed pattern.

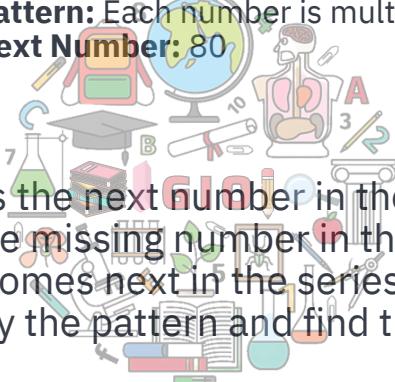
Key Concepts:

- Pattern Recognition:** Understanding how numbers relate to each other in a series.
- Types of Patterns:** Arithmetic (addition/subtraction), geometric (multiplication/division), and mixed patterns.

Examples:

1. **Series:** 2, 4, 6, 8, ...
 - o **Pattern:** Each number increases by 2.
 - o **Next Number:** 10
2. **Series:** 5, 10, 20, 40, ...
 - o **Pattern:** Each number is multiplied by 2.
 - o **Next Number:** 80

Questions:

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1. What is the next number in the series: 3, 6, 9, 12, ...?
 2. Find the missing number in the series: 1, 4, ___, 16, 25.
 3. What comes next in the series: 10, 20, 30, 40, ...?
 4. Identify the pattern and find the next number: 2, 5, 10, 17, ...?

2. Alphabet Series

Alphabet series problems involve identifying patterns in sequences of letters. These problems test knowledge of the English alphabet and help in recognizing patterns.

Key Concepts:

- Alphabetical Order:** Understanding the sequence of letters from A to Z.
- Pattern Recognition:** Identifying gaps or relationships in the series.

Examples:

1. **Series:** A, C, E, G, ...
 - o **Pattern:** Each letter is two places ahead in the alphabet.
 - o **Next Letter:** I
2. **Series:** Z, Y, X, W, ...
 - o **Pattern:** The letters are in reverse order.
 - o **Next Letter:** V

Questions:

1. What is the next letter in the series: B, D, F, H, ...?
2. Find the missing letter in the series: A, C, __, E, G.
3. Identify the pattern and find the next letter: K, M, O, Q, ...?
4. What letter comes next in the series: X, W, V, U, ...?

3. Alphabet Test

Alphabet tests involve determining the position of letters in the English alphabet or finding relationships between different letters.

Key Concepts:

- Positioning:** Each letter has a corresponding numerical position (A=1, B=2, ..., Z=26).
- Reversing Positions:** Understanding the reverse order of letters.

Examples:

1. **Position:** A = 1, B = 2, C = 3, ...
o **Question:** What is the position of the letter D?

Answer: 4

2. **Reverse Position:** Z = 1, Y = 2, X = 3, ...
o **Question:** What is the reverse position of the letter A?

Answer: 26



Questions:

1. What is the position of the letter F in the English alphabet?
2. If A = 1, what is the sum of the positions of the letters A, B, and C?
3. What is the reverse position of the letter M?
4. Find the letter that is 3 positions after J in the alphabet.

4. Mathematical Operations

Mathematical operations involve performing calculations using the four basic arithmetic operations: addition, subtraction, multiplication, and division.

Key Concepts:

- Operations:** Understanding how to perform and apply arithmetic operations in various contexts.
- Order of Operations:** Knowing the correct order to perform calculations (PEMDAS/BODMAS).

Examples:

1. **Addition:** $5 + 3 = 8$
2. **Subtraction:** $10 - 6 = 4$
3. **Multiplication:** $4 \times 2 = 8$
4. **Division:** $12 \div 3 = 4$

Questions:

1. What is the sum of 25 and 37?
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