





Academic Year 2020-2021

DIRECTORATE OF CURRICULAM AND TEACHER EDUCATION (DCTE)
Abbottabad, Khyber Pakhtunkhwa

### **Forward**

The Directorate of Curriculum and Teacher Education Khyber Pakhtunkhwa Abbottabad has undertaken development of the Academic Calendar as part of the overall response to the COVID-19 pandemic. The school year has been shortened considerably due to the closures resulting from the outbreak. Therefore, it is imperative that schools implement an academic calendar designed in such as a way as to enable coverage of all essential student learning outcomes in a shortened academic year. This Academic Calendar (AC) will provide the schools and students with a roadmap of learning for the academic year 2020-21. It will also provide the teachers with the guidelines to implement the AC. The AC will also have references to recently designed worksheets that teachers can use to reinforce learning on essential SLOs. The worksheets are also available online at Elementary and Secondary Education Department website. With these measures in place, I am confident that we will have ensured continuity of learning for our children in these difficult times.

With this, I thank everyone who contributed to the development of AC, particularly the DCTE subject specialists and the team of teachers, they put together for this task. I also thank Khyber Pakhtunkhwa Education Sector Programme and UNICEF for their support throughout this process.

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### **INSTRUCTIONS FOR TEACHERS**

#### **Respected Teachers**

This Academic Calendar is specially designed for year 2020 - 21. As you know that due to COVID 19, we are facing a challenge of limited teaching time this year. In order to assist you to utilize the available time effectively, this Academic Calendar have been developed. The time for each subject is calculated based on the regular school timetable and periods allocation. Special focus has been given to those examples / question from exercise that help to achieve most of the SLOs. The SLOs that have been covered either in other SLOs or subjects or even in previous class are addressed once.

You are requested to:

- Plan your teaching according to the provided academic calendar
- Try to cover all the topics within the allocated period of time.
- Assign homework of few questions for practice and re-enforcement.
- Use worksheet to reinforce concepts where applicable.

We hope that together we can bridge the gap and improve the learning of our children.

## **Table of Contents**

Mathematics	4-16
English	17-36
General Science	37-49
Urdu	50-63



# Mathematics Grade-VIII

Unit No.	Theme	Topics/Subtopics	Student Learning Outcomes (SLOs)	Selected Course Contents	No. of Periods	Guidelines for Teachers
			September (12 periods)			
1	Operations on Sets	<ul> <li>1.1 Some important sets</li> <li>1.2 Operation on Sets</li> <li>1.2.1 Verify commutative and associative laws w.r.t Union and Intersection</li> <li>1.2.2 Verification of Laws Properties of Union and Intersection of Sets</li> <li>(a) The Distributive law of union over intersection of sets</li> <li>(b) Distributive Property of Intersection over Union of Sets</li> <li>1.2.3 Verification of De-Morgan's Laws</li> </ul>	<ol> <li>Recognize set of         <ul> <li>Natural numbers (N),</li> <li>Whole numbers (W),</li> <li>Integers (Z),</li> <li>Rational numbers (Q),</li> <li>Even numbers (E),</li> <li>Odd numbers (O),</li> <li>Prime numbers (P).</li> </ul> </li> <li>Find a subset of a set.</li> <li>Define proper (⊂) and improper (⊆) subsets of a set.</li> <li>Find power set P(A) of a set A.</li> <li>Verify commutative and associative laws with respect to</li> </ol>	Exercise 1.1 (Q.1, 2, 3, 4, 5)	04	<ul> <li>Write the main topic "Operation on Sets" on the writing board and elicit prior student knowledge on commutative, associative and distributive properties over Union and Intersection of sets.</li> <li>Demonstrate union and intersection of three overlapping sets through Venn diagrams.</li> <li>Verify the above stated properties through Venn diagram, state and verify De Morgan's laws.</li> <li>Solve examples and questions from various exercises to clear</li> </ul>
G8- M-01		<ul> <li>1.3 Venn Diagrams</li> <li>1.3.1 Demonstrate union and intersection of three overlapping sets through Venn diagrams.</li> <li>1.3.2 Verify associative and distributive laws through Venn diagram</li> </ul>	union and intersection.  6. Verify the distributive laws.  7. State and verify De Morgan's laws.  8. Demonstrate union and intersection of three overlapping sets through Venn diagram.	Exercise 1.2 (Q.1, 2)	06	misconceptions and enhance understanding of the concept.  Give students few questions for practice as home assignment.  Use worksheets to reinforce concepts wherever possible
		9. Verify associative and distributive laws through 10. Venn diagram.  Review Exercise	uiagiaiii	Review Exercise 1 (Q.1, 2)	02	
			October (25 periods)			
2 <b>G8-</b>	Real Numbers	2.1 Irrational Numbers 2.1.1 Irrational Numbers (Q') 2.1.2 Real Numbers (R) 2.1.3 Terminating and Nonterminating Decimal 2.1.4 Non-repeating Nonterminating Decimals	<ol> <li>Define an irrational number.</li> <li>Recognize rational and irrational numbers.</li> <li>Define real numbers.</li> <li>Demonstrate non-terminating /non-repeating (or non-periodic) decimals.</li> </ol>	Exercise 2.1 (Q.1, 2, 3)	02	<ul> <li>Write the topic "Real Numbers" on the writing board and elicit student prior knowledge.</li> <li>Differentiate between rational and irrational numbers.</li> <li>Explain and demonstrate the</li> </ul>
M-02		2.2 Squares	5. Find perfect square of a number.	Exercise 2.2	02	concept of terminating and non- terminating decimals of real

Unit No.	Theme	Topics/Subtopics	Student Learning Outcomes (SLOs)	Selected Course Contents	No. of Periods	Guidelines for Teachers
		2.2.2 Patterns for the squares of natural numbers  2.3 Square Roots  2.3.1 Square root of Natural number, common fraction and decimal fraction  (a) Methods to Find Square Roots (b) Square Root of Natural Number (c) Square Root of common fraction (d) Square Root of a Decimal Fraction  2.3.2 Square root of a non-perfect square number  2.3.3 Number of Digits in the Square Root of Perfect Squares  2.3.4 Real life problems involving square-roots	<ul> <li>6. Establish patterns for the squares of natural numbers (e.g. 4² = 1 + 2 + 3 + 4 + 3 + 2 + 1</li> <li>7. Find square root of <ul> <li>a natural number (e.g. 16, 625, 1600),</li> <li>a common fraction (e.g. 9/16, 49/49, 49/65),</li> <li>a decimal (e.g. 0.01, 1.21, 0.64) given in perfect square form, by prime factorization and division method.</li> </ul> </li> <li>8. Find square root of a number which is not a perfect square (e.g. the numbers 2, 3, 2.5).</li> </ul>	Exercise 2.3 (Q.1, 2, 3, 4, 5, 6, 7)	05	<ul> <li>Verify the pattern for the square of natural numbers by giving an example like 4² = 1 + 2 + 3 + 4 + 3 + 2 + 1.</li> <li>Explain the concept of square root of Natural numbers.</li> <li>Solve examples and questions from exercise to clear and enhance understanding of the concept.</li> <li>Give students few questions for practice as home assignment.</li> <li>Use worksheets to reinforce concepts wherever possible.</li> </ul>
			9. Use the following rule to determine the number of digits in the square root of a perfect square.  Rule: Let n be the number of digits in	Exercise 2.4 (Q.1, 2, 3, 4,5)	03	
		<ul> <li>2.4 Cubes and Cube Roots</li> <li>2.4.1 Cube and Perfect Cube</li> <li>2.4.2 Cube roots of numbers that are perfect cubes</li> <li>2.4.3 Properties of cubes of numbers</li> <li>(a) Cube of a Positive Number</li> <li>(b) Cube of a Negative Number</li> <li>(c) Cube of common fraction</li> </ul>	<ul> <li>Rule: Let n be the number of digits in the perfect square then its square root contains. <ul> <li>n/2 digits if n is even.</li> <li>n/2 digits if n is odd.</li> </ul> </li> <li>10. Solve real life problems involving square roots.</li> <li>11. Recognize cubes and perfect cubes.</li> <li>12. Find cube roots of a number which are perfect cubes.</li> <li>13. Recognize properties of cubes of numbers.</li> </ul>	Review Exercise 2 (Q.1, 2)	02	
3 G8- M-03	Number Systems	<ul> <li>3.1 Number System</li> <li>3.1.1 Base of a Number System</li> <li>3.1.2 Natural System with base 2, 5, 8, 10.</li> <li>3.2 Conversion</li> <li>3.2.1 Conversion of number from decimal system to a system with base 2, 5, 8, and vice versa.</li> </ul>	<ol> <li>Recognize base of a number system.</li> <li>Define number system with base 2, 5, 8 and 10.</li> <li>Explain         <ul> <li>binary number system (system with base 2),</li> </ul> </li> </ol>	Exercise 3.1 (Q.1-6) Parts (i) and (iii) only	02	<ul> <li>Write the main topic "Number systems" on the writing board and elicit student prior knowledge.</li> <li>Explain and demonstrate the bases of number systems.</li> </ul>

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G8-		3.2.2 Add, Subtract and Multiply Numbers with Base 2, 5 and 8  (a) Binary System  (i) Addition  (ii) Subtraction  (iii) Multiplication	<ul> <li>number system with base 5,</li> <li>octal number system (system with base 8),</li> <li>decimal number system (system with base 10).</li> <li>4. 4. Convert a number from decimal system to a system with base 2, 5</li> </ul>	Exercise 3.2 (Q.1, 2, 3) Parts (iii) and (iv) only	02	<ul> <li>Explain conversion of numbers from decimal system to a system with base 2, 5 and 8.</li> <li>Clarify the concept of number system using addition, subtraction, and multiplication of number with base 2, 5 and 8.</li> </ul>
M-03		(b) Number System with Base 5 (i) Addition (ii) Subtraction (iii) Multiplication	and 8, and vice versa.  5. v) Add, subtract and multiply numbers with base 2, 5 and 8.  6. vi) Add, subtract and multiply	Exercise 3.3 (Q.1, 2, 3) Parts (i) and (ii) only	02	<ul> <li>Solve examples and questions from exercise to clear and enhance understanding of the concept.</li> <li>Give students few questions for practice as home assignment.</li> <li>Use worksheets to reinforce concepts wherever possible.</li> </ul>
		(c) Octal System or Number System with base 8 (i) Addition (ii) Subtraction (iii) Multiplication	numbers with different bases.	Exercise 3.4 (Q.1, 2, 3) Parts (i) and (ii)only	01	
		3.2.3 Addition, Subtraction and Multiplication of numbers with different bases		Exercise 3.5 (Q.1, 4, 5, 7)	02	
				Review Exercise 3 (Q.1, 2, 3)	02	
			November (25 periods)			
		<ul> <li>4.1 Compound Proportion</li> <li>4.1.1 Compound Proportion</li> <li>4.1.2 Real life problems involving compound proportion, partnership and inheritance</li> </ul>	<ol> <li>Define compound proportion.</li> <li>Solve real life problems involving compound proportion, partnership and inheritance.</li> <li>Define commercial bank</li> </ol>	Exercise 4.1 (Q.1, 3, 5, 6, 7)	04	<ul> <li>Write the main topic "Financial Arithmetic" on the writing board and elicit student prior knowledge.</li> <li>Explain compound proportion, portnership and inheritance by</li> </ul>
4 G8- M-04	Financial Arithmetic	<ul> <li>4.2 Banking</li> <li>4.2.1 Definition of Bank</li> <li>4.2.2 Different Types of Deposits of Commercial Banks</li> <li>4.2.3 Types of Bank Accounts</li> <li>4.2.4 Negotiable Instruments</li> <li>4.2.5 Online Banking</li> <li>4.2.6 Transaction Using ATM</li> <li>4.2.7 Credit and Debit Card</li> <li>4.2.8 Visa card and MasterCard</li> <li>4.2.9 Conversion of Currencies</li> <li>4.2.10 Profit /Markup</li> </ul>	deposits, types of a bank account (PLS savings bank account, current deposit account, PLS term deposit account and foreign currency account).  4. Describe negotiable instruments like cheque, demand draft and pay order.  5. Explain on-line banking, transactions through ATM (Auto Teller Machine), debit card and credit card (Visa and Master).	Exercise 4.2 (Q.1, 2, 3, 4, 5, 7, 8) Note:-Keep current exchange rate for pounds and Euros.	03	<ul> <li>partnership and inheritance by solving real-life problems.</li> <li>Explain the function of banks, various cards different terms used in businesses, profit/markup, loss, discount etc.</li> <li>Tell the students about Online banking, conversion of currencies etc.</li> <li>Solve examples and questions from exercises to clear and enhance understanding of the concept.</li> </ul>

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		<ul><li>4.2.11 Types of Financing</li><li>4.3 Percentage</li><li>4.3.1 Profit and Loss</li><li>4.3.2 Discount</li></ul>	Convert Pakistani currency to well-known international currencies.      Calculate:	Exercise 4.3 (Q.1, 2, 5)	02	<ul> <li>Give students few questions for practice as home assignment.</li> <li>Use worksheets to reinforce concepts wherever possible.</li> </ul>
		<ul> <li>4.4 Insurance</li> <li>4.4.1 Definition of Insurance</li> <li>4.4.2 Real life problems involving life insurance</li> <li>4.4.3 Insurance of Vehicle</li> </ul>	<ul> <li>the profit/ markup,</li> <li>the principal amount,</li> <li>the profit/ markup rate,</li> <li>the period.</li> <li>8. Explain</li> </ul>	Exercise 4.4 (Q.1, 2, 3, 4, 5)	05	
		<ul> <li>4.5 Income Tax</li> <li>4.5.1 Income tax, exempt income and taxable income</li> <li>4.5.2 Real life problems involving income tax</li> </ul>	Overdraft (OD), Running Finance (RF), Demand Finance (DF),	Activity on Page # 91	01	
			to banking and finance.  10. Find percentage profit and percentage loss.  11. Find percentage discount.  12. Solve problems involving successive transactions.  13. Define insurance.  14. Solve real life problems regarding life and vehicle insurance.  15. Explain income tax, exempt income and taxable income.  16. Solve simple real-life problems related to individual income tax assesses.	Review Exercise 4 (Q.1, 2, 3, 9, 10, 11)	01	
5 G8- M-05	Polynomials	5.1 Algebraic Expression 5.1.1 Recall the following terms. (a) Constant (b) Variable (c) Literal (d) Algebraic Expression (e) Coefficient 5.2 Polynomial 5.2.1 Definition of Polynomials 5.2.2 Degrees of a polynomial	<ol> <li>Recall constant, variable, literal and algebraic expression.</li> <li>Define         <ul> <li>polynomial,</li> <li>degree of a polynomial,</li> <li>coefficients of a polynomial.</li> </ul> </li> <li>Recognize polynomial in one, two and more variables.</li> <li>Recognize polynomials of various degrees (e.g. linear,</li> </ol>	Exercise 5.1 (Q.1, 2, 3)	02	<ul> <li>Write the main topic "Polynomials" on the writing board and elicit student prior knowledge.</li> <li>Define and explicate the various parts / types of an algebraic expression and polynomials of various degrees.</li> <li>Explain various terms used in algebraic expressions such as variable, constant, coefficient etc.</li> </ul>

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		<ul><li>5.2.3 Polynomials in one, two and more variables</li><li>5.2.4 Polynomials of various degrees</li></ul>	quadratic, cubic and biquadratic polynomials).  5. Add, subtract and multiply polynomials.  6. Divide a polynomial by a linear polynomial.			<ul> <li>Solve examples and questions from exercises to clear and enhance understanding of the concept.</li> <li>Give students few questions for practice as home assignment.</li> <li>Use worksheets to reinforce concepts wherever possible.</li> </ul>
		5.3 Operation on Polynomial 5.3.1 Addition, subtraction and multiplication of Polynomials  (i) Addition  (ii) Subtraction  (iii) Multiplication  (iv) Division		Exercise 5.2 (Q.1, 3, 5, 6. 7)	05	
				Review Exercise 5 (Q.1, 2, 3)	02	
			December (25 periods)			
		6.1 Basic Algebraic Formulas	1. Recall the formulas: • $(a+b)^2 = a^2 + 2ab + b^2$	Exercise 6.1 (Q.1, 2, 3, 4, 5, 6, 7, 8)	05	Write the main topic     "Factorization" on the writing     heard and clinit student prior
6 G8- M-06	Factorization	<ul> <li>6.2 Factorization</li> <li>6.2.1 Factorization of algebraic expression of the form ka + kb + kc</li> <li>6.2.2 Factorization of algebraic expression of the form ac + ad + bc + bd</li> <li>6.2.3 Factorization of algebraic expression of the form a² ± 2ab + b² = (a ± b)²</li> <li>6.2.4 Factorization of algebraic expression of the form a² - b²</li> <li>6.2.5 Factorization of algebraic expression of the form a² - b²</li> <li>6.2.6 Factorization of algebraic expression of the form a² - b²</li> </ul>	• $(a-b)^2 = a^2 - 2ab + b^2$ • $a^2 - b^2 = (a-b)(a+b)$ and apply them to solve problems like; • evaluate $(102)^2$ , $(1.02)^2$ , $(98)^2$ and $(0.98)^2$ • find $x^2 + \frac{1}{x^2}$ and $x^4 + \frac{1}{x^4}$ when the value of $x \pm \frac{1}{x}$ is given 2. Factorize expressions of the following types: • $ka + kb + kc$ • $ac + ad + bc + bd$ • $a^2 \pm 2ab + b^2$ • $a^2 - b^2$	Exercise 6.2 (Q.1, 2)	04	<ul> <li>board and elicit student prior knowledge</li> <li>Facilitate the recall of the algebraic formula and apply these to solve problems.</li> <li>Explain factors, steps involved in factorization of an expression.</li> <li>Solve simultaneous linear equations of one and two variables and discuss how these equations are formed and used for solution of problems.</li> <li>Explain different methods for finding the solutions of linear equations in one and two variables.</li> <li>Solve examples and questions from</li> </ul>
		6.3 The Algebraic Expression 6.3.1 The formulas of cube	• $a^2 \pm 2ab + b^2 - c^2$ 3. Recognize the formulas:	Exercise 6.3 (Q.1, 2, 3, 4)	04	exercises to clear and enhance understanding of the concept.

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		<ul> <li>6.4 Simultaneous Linear Equations</li> <li>6.4.1 Simultaneous Linear Equations in one or two variables</li> <li>6.4.2 Formation of Linear Equations in Two Variables</li> <li>6.4.3 Solution of a Linear Equation in two variables</li> <li>6.4.4 Solution of Simultaneous Linear Equations in Two Variable</li> <li>6.5 Solution of Simultaneous Linear Equations</li> <li>6.5.1 Methods of solution of Simultaneous Linear Equations in one or two variables</li> <li>6.5.2 Solution of Simultaneous Linear Equations involving real life problems</li> </ul>	<ul> <li>(a + b)<sup>3</sup> = a<sup>3</sup> + 3a<sup>2</sup>b + 3ab<sup>2</sup> + b<sup>3</sup></li> <li>(a - b)<sup>3</sup> = a<sup>3</sup> - 3a<sup>2</sup>b + 3ab<sup>2</sup> - b<sup>3</sup></li> <li>and apply them to solve the problems like;</li> <li>find x<sup>3</sup> + 1/x<sup>3</sup> and x<sup>3</sup> - 1/x<sup>3</sup> when the value of x ± 1/x is given</li> <li>Recognize simultaneous linear equations in one and two variables.</li> <li>Give the concept of formation of linear equation in two variables.</li> <li>Know that:</li> <li>a single linear equation in two unknowns is satisfied by as many pair of values as required.</li> <li>two linear equations in two unknowns have only one solution (i.e., one pair of</li> </ul>	Exercise 6.4 (Q.1, 2, 3, 4)	05	<ul> <li>Give students few questions for practice as home assignment.</li> <li>Use worksheets to reinforce concepts wherever possible.</li> </ul>
		<ul> <li>6.6 Elimination</li> <li>6.6.1 Elimination by substitution</li> <li>6.6.2 Elimination of a Variable from two Equations by Application</li> </ul>	values). 7. Solve simultaneous linear equations using • method of equating the	Exercise 6.5 (Q.1, 2)	05	
			coefficients,	Review Exercise 6 (Q.1, 2)	02	

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			January (26 periods)			
7 G8- M-07	Fundamentals of Geometry	<ul> <li>7.1 Parallel Lines</li> <li>7.1.1 Definition of parallel lines</li> <li>7.1.2 Demonstration of the following Properties of parallel lines.</li> <li>(i) Two lines which are parallel to the same given line are parallel to each other.</li> <li>(ii) If three lines are intersected by two transversals in such a way that the two intercepts on one transversal are equal to each other, the two intercepts on the second transversal are also equal.</li> <li>(iii) A line through the midpoint of the side of a triangle parallel to another side bisects the third side (an application of the above property).</li> <li>7.1.3 Drawing of a transversal to intersect two parallel lines and demonstrating corresponding angles, alternate interior angles, vertically opposite angles and interior angles on the same side of transversal</li> </ul>	<ol> <li>Define parallel lines.</li> <li>Demonstrate through figures the following properties of parallel lines.</li> <li>Two lines which are parallel to the same given line are parallel to each other.</li> <li>If three parallel lines are intersected by two transversals in such a way that the two intercepts on one transversal are equal to each other, the two intercepts on the second transversal are also equal.</li> <li>A line through the midpoint of the side of a triangle parallel to another side bisects the third side (an application of above property).</li> <li>Draw a transversal to intersect two parallel lines and demonstrate corresponding angles, alternate interior angles, vertically opposite angles and interior angles on the same side of transversal.</li> </ol>	Exercise 7.1 (Q.1, 2)	02	<ul> <li>Write the main topic "Fundamentals of Geometry" on the writing board and elicit student prior knowledge.</li> <li>Draw parallel lines and discuss their properties.</li> <li>Demonstrate to students that if three parallel lines are intersected by two transversals in such a way that the two intercepts on one transversal are equal to each other, the two intercepts on the second transversal are also equal.</li> <li>Demonstrate and discuss the properties of various polygons.</li> <li>Discuss sector, secant, chord of a circle, concyclic points, tangent to a circle, concentric circles etc.</li> <li>If possible, discuss the practical applications.</li> </ul>
		<ul> <li>7.2 Polygon</li> <li>7.2.1 Definition of a polygon.</li> <li>7.2.2 Demonstrate the following properties of a parallelogram <ol> <li>Opposite sides of a parallelogram are equal</li> <li>Opposite angles of parallelogram are equal</li> <li>Diagonals of a parallelogram bisect each other</li> </ol> </li> <li>7.2.3 Regular pentagon, hexagon and octagon</li> </ul>	<ul> <li>4. Describe the following relations between the pairs of angles when a transversal intersects two parallel lines.</li> <li>Pairs of corresponding angles are equal.</li> <li>Pair of alternate interior angles are equal.</li> <li>Pair of interior angles on the same side of transversal is supplementary and demonstrate them through figures.</li> <li>5. Define a polygon.</li> </ul>	Exercise 7.2 (Q.1, 2, 3)	03	<ul> <li>Solve examples and questions from exercise to clear and enhance understanding of the concept.</li> <li>Give students few questions for practice as home assignment.</li> <li>Use worksheets to reinforce concepts wherever possible.</li> </ul>

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			<ul><li>6. Demonstrate the following properties of a parallelogram.</li><li>Opposite sides of a</li></ul>	Exercise 7.3 (Q.1, 2, 3, 4, 5, 6, 7)	04	
		<ul> <li>7.3 Circle</li> <li>7.3.1 Demonstrating a point lying in the interior and exterior of a circle.</li> <li>7.3.2 Sector, secant, chord of a circle, concyclic points, tangent to a circle and concentric circles</li> </ul>	parallelogram are equal.  Opposite angles of a parallelogram are equal.  Diagonals of a parallelogram bisect each other.  Define regular pentagon, hexagon and octagon.  Demonstrate a point lying in the interior and exterior of a circle.  Describe the terms; sector, secant and chord of a circle, concyclic points, tangent to a circle and concentric circles.	Review Exercise 7 (Q.1, 2, 3, 4)	02	
8 G8- M-08	Practical Geometry	<ul> <li>8.1 Construction of Quadrilateral</li> <li>8.1.1 Converging or Non-Parallel Lines</li> <li>8.1.2 Angle between Converging Lines</li> <li>8.1.3 Bisect angle between two converging lines without producing them</li> <li>8.1.4 Square</li> <li>(a) Construction of square when its diagonal is given</li> <li>(b) Construction of a square when the difference between its diagonal and side is given</li> <li>(c) Construction of a square when the sum of its diagonal and side is given</li> <li>8.1.5 Construction of Rectangle</li> <li>(a) Construction of a rectangle when two sides are given</li> <li>(b) Constructing a rectangle when the diagonal and a side are given</li> <li>8.1.6 Construction of a rhombus</li> <li>(a) Constructing a rhombus when one side and the base angle are given</li> </ul>	<ol> <li>Define and depict two converging (non-parallel) lines and find the angle between them without producing the lines.</li> <li>Bisect the angle between the two converging lines without producing them.</li> <li>Construct a square.         <ul> <li>When its diagonal is given.</li> <li>When the difference between its diagonal and side is given.</li> </ul> </li> <li>When the sum of its diagonal and side is given.</li> <li>When two sides are given.</li> <li>When the diagonal and a side are given.</li> <li>Construct a rhombus.</li> <li>When one side and the base angle are given.</li> <li>When one sides and a diagonal are given.</li> <li>Construct a parallelogram.</li> </ol>	Exercise 8.1 (Q.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11)	09	<ul> <li>Write the main topic "Practical Geometry" on the writing board and elicit student prior knowledge.</li> <li>Demonstrate and aid students in the construction of quadrilateral, square, rectangle, rhombus etc.</li> <li>Use mathematical kits/geometry box for deeper understanding of polygons.</li> <li>Discuss in detail construction of right-angled triangle under certain conditions.</li> <li>If possible, discuss the practical applications.</li> <li>Solve examples and questions from exercise to clear and enhance understanding of the concept.</li> <li>Give students few questions for practice as home assignment.</li> <li>Use worksheets to reinforce concepts wherever possible.</li> </ul>

Unit No.	Theme	Topics/Subtopics	Student Learning Outcomes (SLOs)	Selected Course Contents	No. of Periods	Guidelines for Teachers
G8- M-08		<ul> <li>(b) Constructing a rhombus when one side and a diagonal are given</li> <li>8.1.7 Construction of Parallelogram</li> <li>(a) When two adjacent sides and the angle included between them are given</li> <li>(b) When two diagonals and the angle included between them are given</li> <li>8.1.8 Construction of Kite</li> <li>8.1.9 Construction of pentagon</li> <li>8.1.10 Construction of Regular Hexagon</li> <li>8.2 Construction of Right-Angled Triangle</li> <li>8.2.1 Constructing a right-angled triangle when its hypotenuse and a side are given.</li> <li>8.2.2 Constructing a right-angled triangle when its hypotenuse and the vertical height from its vertex to the hypotenuse are given</li> </ul>	<ul> <li>When two diagonals and the angle between them is given.</li> <li>When two adjacent sides and the angle included between them is given.</li> <li>Construct a kite.</li> <li>When two unequal sides and a diagonal are given.</li> <li>Construct a regular pentagon.</li> <li>When a side is given.</li> <li>Construct a regular hexagon.</li> <li>When a side is given.</li> <li>Construct a right-angled triangle.</li> <li>When hypotenuse and one side are given.</li> <li>When hypotenuse and the vertical height from its vertex to the hypotenuse are given.</li> </ul>	Exercise 8.2 (Q.2, 3)	04	
				Review Exercise 8 (Q.1, 2, 3)	02	
			February (24 periods)			
		9.1 Pythagoras Theorem 9.1.1 Pythagoras theorem and its informal proof 9.1.2 Solve right angled triangle using Pythagoras Theorem	<ul><li>13. State the Pythagoras theorem and given its informal its informal proof.</li><li>14. Solve right angled triangles using</li></ul>	Exercise 9.1 (Q.1, 2, 4, 5, 6)	02	<ul> <li>Write the main topic "Areas and Volume" on the writing board and elicit student prior knowledge.</li> <li>State Pythagoras theorem and capability the application of this</li> </ul>
9 <b>G8</b> -	Areas and Volumes	9.2 Hero's Formula 9.2.1 Introduction to application of Hero's formula 9.2.2 Area of a triangular region 9.2.3 Area of a quadrilateral region	Pythagoras theorem.  15. State and apply Hero's formula to find the areas of triangular and quadrilateral regions.  16. Find the surface area and volume of a sphere.	Exercise 9.2 (Q.1, 3, 5)	02	<ul> <li>explain the application of this theorem in a right angle triangle.</li> <li>Find the missing side length in a right angle triangle using Pythagoras Theorem</li> </ul>
M-09		9.3 Surface area and volume 9.3.1 Surface area and volume of a sphere	<ul><li>17. Find the surface area and volume of a cone.</li><li>18. Solve real life problems involving</li></ul>	Exercise 9.3 (Q.1, 2, 3, 4, 5,6)	02	<ul> <li>Explain the use of Hero's Formula in finding the area of triangular and quadrilateral regions.</li> <li>Find surface area and volume of a</li> </ul>
		9.3.2 Surface area and volume of Cone	surface area and volume of sphere and cone.	Exercise 9.4 (Q.1, 2, 3)	02	sphere and cone by giving an example.

Unit No.	Theme	Topics/Subtopics	Student Learning Outcomes (SLOs)	Selected Course Contents	No. of Periods	Guidelines for Teachers
				Review Exercise 9 (Q.1, 2, 4, 8)	01	<ul> <li>If possible, discuss the practical applications.</li> <li>Solve examples and questions from exercise to clear and enhance understanding of the concept.</li> <li>Give students few questions for practice as home assignment.</li> <li>Use worksheets to reinforce concepts wherever possible.</li> </ul>
10 <b>G8-</b>	Demonstrative Geometry	10.1 Demonstrative Geometry 10.1.1 Reasoning 10.1.2 Theorems or Propositions (i) Geometrical Theorems (ii) Corollary (iii) Converse of a Theorem (iv) Parts of Propositions or Theorems a. Statement (Given and to Prove) b. Figure c. Construction 10.1.3. Adjacent Angle	<ol> <li>Define demonstrative geometry.</li> <li>Describe the basics of reasoning.</li> <li>Describe the types of assumptions (axioms and postulates).</li> <li>Describe parts of a proposition.</li> <li>Describe the meanings of a geometrical theorem, corollary and converse of a theorem.</li> <li>Prove the following theorems with the corollaries and apply them to solve problems.</li> <li>If a straight line stands on another straight line the sum of measures of two angles so formed is equal</li> </ol>	Exercise 10.1 (Q.1, 2, 3)	03	<ul> <li>Write the main topic "Demonstrative Geometry" on the writing board and elicit student prior knowledge.</li> <li>Describe and discuss demonstrative geometry, the basics of reasoning, types of assumptions (axioms and postulates).</li> <li>Explain Parts of Propositions or Theorems, Statement (Given and to Prove), Figure, Construction.</li> </ul>
M-10	10.1.4 E	10.1.4 Exterior Angle	to two digites so formed is equal to two right angles.  8. If the sum of measures of two adjacent angles is equal to two right angles, the external arms of the angles are in a straight line.	Exercise 10.2 (Q. 2, 3, 4, 5, 6, 7, 9)	04	<ul> <li>Explain in detail adjacent and exterior angles.</li> <li>If possible, discuss its practical applications.</li> <li>Solve examples and questions from</li> </ul>
			<ul> <li>9. If two lines intersect each other, then the opposite vertical angles are congruent.</li> <li>10. In any correspondence of two triangles, if two sides and included angle of one triangle are congruent to the corresponding sides and included angles of the other, the two triangles are congruent.</li> </ul>	Review Exercise 10 (Q.1, 5)	01	exercises to clear and enhance understanding of the concept.  Give students few questions for practice as home assignment.  Use worksheets to reinforce concepts wherever possible.

Unit No.	Theme	Topics/Subtopics	Student Learning Outcomes (SLOs)	Selected Course Contents	No. of Periods	Guidelines for Teachers
		11.1 Trigonometry	<ul> <li>11. If two sides of a triangle are congruent, then the angle opposite to these sides are congruent.</li> <li>12. An exterior angle of a triangle is greater in measure than either of its opposite interior angles.</li> <li>13. If a transversal interior intersects two lines such that the pair of alternate angles are congruent then the lines are parallel.</li> <li>14. If a traversal intersects two parallel lines the alternate angles so formed are congruent.</li> <li>15. The sum of measures of the three angles of a triangle is 180°.</li> <li>1. Define trigonometry.</li> <li>2. Define trigonometry article of an angle of an angle of a property in the strigonometry.</li> </ul>			Write the main topic "Introduction to  Triangle 4" and a mixture be selected."
11 <b>G8</b> -	Introduction to Trigonometry	11.2 Trigonometric Ratios 11.2.1 Definition of Trigonometric Ratios 11.2.2 Trigonometric Ratios of An Acute Angle i. Trigonometric Ratios of 45° ii. Trigonometric Ratios of 30° iii. Trigonometric Ratio of 60° 11.2.3 Trigonometric Ratios of Complementary Angles 11.2.4 Solution of right-angled triangles using trigonometric ratios	<ol> <li>Define trigonometric ratios of an acute angle.</li> <li>Find trigonometric ratios of acute angles (30°,60°, and 45°).</li> <li>Define trigonometric ratios of complementary angles.</li> <li>Solve right angled triangles using trigonometric ratios.</li> <li>Solve real life problems to find heights (avoid naming angle of elevations).</li> </ol>	Exercise 11.1 (Q.1, 2, 3, 4, 5, 6)	05	<ul> <li>Trigonometry" on the writing board to elicit student prior knowledge.</li> <li>Discuss and demonstrate trigonometry and trigonometric ratios.</li> <li>Explain trigonometric ratios of acute angles and complementary angles.</li> <li>Solve problems involving right angle triangles using trigonometric ratios.</li> <li>If possible, discuss the practical applications.</li> <li>Solve examples and questions from</li> </ul>
M-11				Review Exercise 11 (Q.1, 2, 3)	02	<ul> <li>exercises to clear and enhance understanding of the concept.</li> <li>Give students few questions for practice as home assignment.</li> <li>Use worksheets to reinforce concepts wherever possible.</li> </ul>

Unit No.	Theme	Topics/Subtopics	Student Learning Outcomes (SLOs)	Selected Course Contents	No. of Periods	Guidelines for Teachers
			March (13 periods)			
12 G8- M-12	Information Handling	12.1 Frequency Distribution 12.1.1 Frequency and Frequency Distribution (i) Frequency (ii) Frequency Distribution a. Ungrouped Frequency Distribution or Discrete Series b. Grouped Frequency Distribution or Continuous Series 12.1.2 Construction of Frequency table 12.1.3 Construction of a histogram representing frequency table 12.2 Measuring of Central Tendency 12.2.1 Central tendency	<ol> <li>Define frequency, frequency distribution.</li> <li>Construct frequency table.</li> <li>Construct a histogram representing frequency table.</li> <li>Describe measures of central tendency.</li> <li>Calculate means (average,) weighted means, median, and mode for ungrouped data.</li> </ol>	Exercise 12.1 (Q.1, 2, 3, 4, 5)  Exercise 12.2	06	<ul> <li>Write the main topic "Information Handling" on the writing board and elicit student prior knowledge.</li> <li>Define and discuss frequency, frequency distribution of grouped and ungrouped data.</li> <li>Construct frequency table and histogram from frequency table.</li> <li>Explain measures of Central Tendency and calculate Mean (average), Weighted Mean, Median, Mode with an example.</li> <li>If possible, discuss the practical applications.</li> <li>Solve examples and questions from</li> </ul>
		12.2.2 Calculating measure  (i) Mean (Average)  (ii) Weighted Mean  (iii) Median  (iv) Mode  12.2.3 Real life problem involving mean (average), weighted mean, median and mode	6. Solve real life problems involving mean (average), weighted mean, median and mode.	Review Exercise 12 (Q.1, 2, 5)	03	exercises to clear and enhance understanding of the concept.  Give students few questions for practice as home assignment.  Use worksheets to reinforce concepts wherever possible.

- All SLOs and topics from textbook have been considered.
- Those examples/questions from exercise have been taken, which cover all the SLOs and topics.
- Retain the sequential order, logical framework, time duration and learning progression at all stages.

# **English Grade-VIII**

Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	<b>Guidelines for Teachers</b>	
	September (8 periods)				
Write a clear topic sentence using specific words, vivid verbs, modifiers etc.	Activity "B" and "C" on page # 8 of the textbook.			After brief description of key points, assign it as home assignment	
Analyze features of an effective topic sentence i.e. specific word, vivid verbs and modifiers.	Activity "C" on page # 8 of the textbook.			Home Assignment	
Read a text to describe orally and in writing, character traits using evidence from the text.	Activity on page # 3 of the textbook and teacher's guideline.			<ul> <li>Explain while reading the text.</li> <li>Allocate sufficient time/period(s) for reading the Unit text on P # 02-04 of KP textbook.</li> </ul>	
Differentiate between long and short vowel sounds and recognize how vowel length can change the meaning.	Activity on page # 9 and 10 of the textbook.			Demonstrate sounds practically	
Recognize and pronounce silent letters in words.	Activity "C" on page # 7 of the textbook.	Prophet	0.0	Encourage and guide student how to use dictionary.	
Demarcate words into syllables with the help of dictionary.		Muhammad	00	Home Assignment	
Recognize syllable division of words in aural and written text.	Already learnt task	Jastice Justice		Revise the concept and assign both SLOs as home assignments	
Recognize, pronounce and represent primary and secondary stress in words with the help of dictionary.	Activity on page # 12 of the textbook.			Practical demonstration is mandatory	
Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 6 of the textbook.				
Ask and respond to questions of personal interest	Listening & Speaking activity at P # 09 of KP textbook			Ask students to practice the dialogue with their siblings at home (COVID-19)	
	Write a clear topic sentence using specific words, vivid verbs, modifiers etc.  Analyze features of an effective topic sentence i.e. specific word, vivid verbs and modifiers.  Read a text to describe orally and in writing, character traits using evidence from the text.  Differentiate between long and short vowel sounds and recognize how vowel length can change the meaning.  Recognize and pronounce silent letters in words.  Demarcate words into syllables with the help of dictionary.  Recognize syllable division of words in aural and written text.  Recognize, pronounce and represent primary and secondary stress in words with the help of dictionary.  Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Write a clear topic sentence using specific words, vivid verbs, modifiers etc.  Analyze features of an effective topic sentence i.e. specific word, vivid verbs and modifiers.  Read a text to describe orally and in writing, character traits using evidence from the text.  Differentiate between long and short vowel sounds and recognize how vowel length can change the meaning.  Recognize and pronounce silent letters in words.  Demarcate words into syllables with the help of dictionary.  Recognize, pronounce and represent primary and secondary stress in words with text and use intensive reading strategies while reading.  Activity "C" on page # 3 of the textbook and teacher's guideline.  Activity on page # 9 and 10 of the textbook.  Activity "C" on page # 7 of the textbook.  Activity "C" on page # 7 of the textbook.  Activity on page # 12 of the textbook.  Comprehension question activity "A" on page # 6 of the textbook.  Listening & Speaking activity at P #	Write a clear topic sentence using specific words, vivid verbs, modifiers etc.  Analyze features of an effective topic sentence i.e. specific word, vivid verbs and modifiers.  Read a text to describe orally and in writing, character traits using evidence from the text.  Differentiate between long and short vowel sounds and recognize how vowel length can change the meaning.  Recognize and pronounce silent letters in words.  Demarcate words into syllables with the help of dictionary.  Recognize syllable division of words in aural and written text.  Recognize, pronounce and represent primary and secondary stress in words with the help of dictionary.  Apply critical thinking to interact with text and use intensive reading strategies while reading.  Activity on page # 9 and 10 of the textbook.  Activity on page # 7 of the textbook.  Activity on page # 7 of the textbook.  Activity on page # 12 of the textbook.  Comprehension question activity "A" on page # 6 of the textbook.  Activity on page # 6 of the textbook.  Listening & Speaking activity at P #	September (8 periods)  Write a clear topic sentence using specific words, vivid verbs, modifiers etc.  Analyze features of an effective topic sentence i.e. specific word, vivid verbs and modifiers.  Read a text to describe orally and in writing, character traits using evidence from the text.  Differentiate between long and short vowel sounds and recognize how vowel length can change the meaning.  Recognize and pronounce silent letters in words.  Demarcate words into syllables with the help of dictionary.  Recognize, pronounce and represent primary and secondary stress in words with the help of dictionary.  Apply critical thinking to interact with text and use intensive reading strategies while reading.  Activaty on page # 3 of the textbook and teacher's guideline.  Activity on page # 9 and 10 of the textbook.  Activity "C" on page # 7 of the textbook.  Activity "C" on page # 7 of the textbook.  Activity "C" on page # 12 of the textbook.  Activity on page # 12 of the textbook.  Comprehension question activity "A" on page # 6 of the textbook.  Activity "A page # 6 of the textbook.  Activity on page # 12 of the textbook.  Listening & Speaking activity at P #	

• SLO # 4, 5, 6, and 11 are sufficiently practiced in the earlier grades.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers					
		September (9 periods)								
	Make predictions about story line / content, characters, using contextual clues and prior knowledge.	Activity on page # 14 and 15 of the textbook.					<ul> <li>Encourage and guide students for the targeted purpose with help questions and pictures.</li> <li>Allocate sufficient time/period(s) for reading the Unit text on P # 14-17 of KP textbook</li> </ul>			
	Use dictionary to locate guide words, locate entry words and choose appropriate word definition.	Teacher will explain the concept and then assign activity on page # 09 to the students.			Brief students and then assign a home assignment.					
	Read a text to analyze characters, their motives, actions and emotional responses.	Teacher will explain the concept and then give some task to student.	The Strange Voyage of Sindbad							
02	Recognize genres of literature e.g. fiction, poetry, legend, myth.	Activity on page # 16 of the textbook			Use teacher's guideline at page # 16					
60 5 00	Write a short narrative in the first or third person.			09	Home Assignment					
G8-E-02	Demonstrate use of more common and proper, collective, countable and uncountable.	Activity "A" on page # 20 of the textbook.			Provide one example in the class and then assign activity as homework.					
	Apply the rules of change of numbers of nouns learnt earlier.				Home Assignment					
	Recognize and demonstrate use of certain nouns whose plural form as two meanings in some cases e.g. armarms; (limbs), weapons.	Activity on page # 22 of the textbook.								all,
	Some nouns change their meaning in the plural form e.g. air — atmosphere, airs — pride.	Activity on page # 22			Give some examples to the students to understand the concept.					
	Apply critical thinking to interact with text and use intensive reading strategies while reading.	Comprehension question activity "A" on page # 18 of the textbook.			Add a question asking; What the authors' purpose in the given story?					

- SLO # 7 and 9 are covered in the last SLO of this Unit While for SLO # 10 no proper activity is included.
- SLOs # 3, 4, 5, 6, 14 and 18 are sufficiently practiced in the earlier grades.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	<b>Guidelines for Teachers</b>
		October (8 periods)			
	Predict the content of a text from topic / picture / title / headings / key words and visual etc. by using prior knowledge, asking questions and contextual clues.	Look at page # 27 of the textbook			Encourage and guide students for the targeted purpose with help questions and pictures.
	Utilize comparison, appositive phrases and synonyms to deduce the meaning of the unfamiliar words.	Activity on page # 30 of the textbook.			After a short description with example assign this task as home assignment.
03 <b>G8-E-03</b>	<ul> <li>Recognize that:</li> <li>Introductory paragraph carries the main idea of the essay.</li> <li>Each one of the body paragraphs develops the main idea through key ideas. The key ideas are developed though supporting details.</li> <li>The concluding paragraph contains a summary of the body paragraphs, and a general concluding statement.</li> <li>Paragraphs are linked through various transitional devices.</li> </ul>	Activity "A" on page # 33 of the textbook.	The Hazards of Flood	08	Make sure the participation of students and address complete SLO
	Analyze and compare various informal and formal dialogues to note differences of features, vocabulary, style and tone.	Activity on page # 31 and 32 of the textbook.			Practical demonstration is mandatory in the class.
	Use summary skills to transfer the written text to a cloze paragraph.	Activity "B" on page # 30 of the textbook.			Home Assignment
	Recognize, differentiate and demonstrate use of possessive forms of more animate and inanimate nouns.	Activity "B" on page # 31 of the textbook.			Explain and give one example and then assign homework.
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 29 of the textbook.			

- SLO # 2, 7, and 9 are sufficiently practiced in earlier grades While SLO # 08 regarding group work cannot be done due to SOP for COVID-19.
- SLO # 11 and 12 are club together. These two SLO's are covered in last Unit of this grade.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers	
		October (8 periods)				
	Use pre-reading strategies to predict the content of a text from topic / picture / title / headings / key words and visuals etc. by using prior knowledge, asking questions and contextual clues.	Activity on page # 35 of the textbook.				Encourage and guide students for the targeted purpose with the help of questions and pictures.
	Use a variety of pre-writing strategies such as brainstorming, mind mapping, outlining etc.	Activity "A" on page # 40 of the textbook.			After a brief description about the activity, give as home assignment.	
	<ul> <li>Write a simple unified paragraph on a given topic.</li> <li>Write a clear topic sentence using vivid verbs, modifiers etc.</li> <li>Add adequate supporting details (example, illustration, definition, evidence, comparison, contrast, cause and effect) to develop the main idea.</li> </ul>	Activity on page # 39 of the textbook and teacher's guideline	Computer and Internet		Write a unique paragraph as it is done before so need to be given as home assignment.	
04	Use appropriate transitional devices within a paragraph.					
G8-E-04	<ul> <li>Use dictionary to:         <ul> <li>Locate guide words locate entry words, choose appropriate word definition.</li> <li>Identify part of speech of a word through abbreviation used.</li> </ul> </li> </ul>	Activity "A" and "B" on page # 39 of the textbook.		08	After brief description about the activity, give as home assignment.	
	Demonstrate use of pronouns as subject and object. Recognize functions of and use possessive, reflexive and emphatic pronouns.	Activity on page # 41 and 42 of the textbook.				
	Demonstrate extended use of question words.	Activity on page # 43 of the textbook.			Extended practice must be done	
	Identify and demonstrate function and use of relative pronouns which, who and that.	Activity on page # 42 of the textbook.			After brief description about the activity, give it as home assignment.	
	Recognize and demonstrate appropriate expressions and etiquettes for a telephonic conversation.	Activity on page # 40 of the textbook.			Practical demonstration must be done in the class.	
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 39 of the textbook.				
Rationa				1		

• SLO # 5, 9, 10 and 12 are sufficiently practiced in earlier grades.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers				
		October (5 periods)							
	<ul> <li>Read poem and give orally or in writing.</li> <li>Main idea</li> <li>Theme and its development</li> <li>Summary</li> <li>Personal response with justification</li> <li>Paraphrase</li> </ul>	<ul> <li>Theme and its development it covered in the comprehension questions activity.</li> <li>Activity "B" for summary is on page 51.</li> <li>Paraphrase activity is on page # 50.</li> </ul>	The Dawn's	_			_		After reading the text, help students to attempt comprehension question No: 2.
	<ul> <li>Use paraphrasing skill to paraphrase stanza:</li> <li>Mark thought groups in the stanza</li> <li>Restate the message in simple prose</li> <li>Replace poetic words with simple ones.</li> </ul>	Activity "A" and "B" on page # 50 and 51 of the textbook.							
05	Apply summary skills to familiar / unseen passages and poems to:  Write summary / precis of simple passages  Summarize poems	Teacher will guide them and provide the unseen paragraph		05	Home Assignment				
G8-E-05	Recognize literary techniques such as 'personification'	Vocabulary activity "A" on page # 49 and 50 of the KP textbook.	Awake		Home Assignment				
	Deduce meaning of difficult words from context.	Look at page # 46 of the textbook			After reading the text, help student to deduce meanings.				
	Illustrate use of helping verbs in speech and writing.	Activity on page # 51 and 52 of the textbook.							
	Recognize and demonstrate function and use of modal verbs learnt earlier.	Activity on page # 52 and 53 of the textbook.			Home Assignment				
	Recognize and demonstrate function and use of infinitives.	Activity on page # 53 of the textbook.			Give some example to explain this concept.				
	<ul> <li>Use critical thinking to respond to the text (post–reading):</li> <li>Apply world knowledge and own feeling / opinion to the text read.</li> <li>Evaluate material read.</li> </ul>	Comprehension question activity "A" on page # 48 of the textbook.							

• SLO # 1, 4, 7 and 10 are sufficiently practiced in earlier grades.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	<b>Guidelines for Teachers</b>		
		November (9 periods)					
	Use pre-reading strategies to predict the content of a text from topic / picture / title / headings / key words and visuals etc. by using prior knowledge, asking questions and contextual clues.	Activity on page # 54 – 56 of the textbook.			Encourage and guide students for the targeted purpose with the help of questions and pictures.		
	Illustrate the use of regular and irregular verbs in speech and writing.	Activity on page # 60 and 61 of the textbook.			After a brief description about the activity, give it as home assignment.		
	Analyze analogies; complete analogies correctly.	Activity "B" on page # 59 of the textbook.	The		Practical demonstration must be done in the class.		
06 <b>G8-E-06</b>	Use polite forms to negotiate and reach conclusions.	Activity on page # 62 of the textbook.	Founding Father of Pakistan	Founding Father of	Founding Father of	09	Post reading activity:  Introduce all mentioned terms to class  Review the whole text and motivate students to locate and understand all terms time to time where applicable
	Proof read and edit texts for errors of: Punctuation and spelling	Look at page # 59 and 60 of the textbook.					
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 68 of the textbook.					
Rationa							
• SLO #	2 and 4 are sufficiently practiced in earlier grades.						
		November (9 periods)					
	Use pre-reading strategies to predict the content of a text.	Look at page 64 – 66 of the textbook.			Encourage and guide students for the targeted purpose with the help of questions and pictures.		
07	Write a clear topic sentence using specific words, vivid verbs, modifiers etc.	Activity "B" give at page 71 of the textbook.	The Handicrafts of Pakistan	00	Guided activity must be completed in class		
G8-E-07	Analyze features of an effective topic sentence i.e. specific word, vivid verbs and modifiers.	Activity "B" on page 71 of the textbook.		09	Complete activity is at page # 71 Analyze and review for purpose		
	Use summary skills to extract salient points and develop a mind map to summarize a text.	Activity "A" on page # 71 of the textbook.					

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers
	Choose appropriate synonyms and antonyms from children's thesaurus.	Activity "B" on page # 68 of the textbook.			Home Assignment
07	Identify and differentiate between a sentence, clause and a phrase, identify and differentiate between main and subordinate clause.	Activity on page # 69 and 70 of the textbook.	The		Discuss content / description in detail
G8-E-07	Use various functions to express dissatisfaction, disapproval of disagreement politely.	Activity on page # 68 of the textbook.	Handicrafts of Pakistan		Home Assignment and the teacher must explain the concept and provide one example.
	<ul> <li>Apply critical thinking to interact with text and use intensive reading strategies while reading.</li> <li>Scan to answer short questions.</li> </ul>	Comprehension question activity "A" on page # 68 of the textbook.			

• SLO # 5 and 7 are sufficiently practiced in earlier grades.

		November (9 periods)			
	Ask, restate and simplify directions and instructions.	Activity on page # 78 of the textbook.			Guided Activity
	Analyze and compare various informal and formal letters to note differences of conventions, vocabulary, style and tone.	Analysis			Provide various formal and informal letters to students for analyzing different settings.
	Write formal letters to people in immediate and extended environment for various purposes.	<ul> <li>Activity on page # 78 and 79 of</li> </ul>			
08 <b>G8-E-08</b>	<ul> <li>Follow conventions of formal letter with respect to layout, salutations etc. recognize and demonstrate use of appropriate vocabulary, style and tone in formal letters.</li> <li>Write the address on the envelop clearly and in proper format.</li> </ul>	the textbook.  Take help from format at page # 73 of the textbook.  Take help from text of Unit	Letter to the Editor of a Newspaper	07	Follow the format provided on page # 78
	Write application to people in extended environment revise for:  Correct format, layout Appropriate vocabulary, style, tone	Activity "A" on page # 79 of the textbook.			Also take guideline of template provided on page # 79 (Home Assignment) complete Activity at page # 79.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers
	Identify and utilize effective study skills e.g. making a mind map, brainstorming for generating and developing ideas.	Look at page # 79 of the textbook.			Guided activity
08 <b>G8-E-08</b>	Recognize and use appropriate transitional words within and beyond paragraphs for better coherence and cohesion	Look at page # 79 last activity of Unit of the textbook.	Letter to the Editor of a Newspaper		Home Assignment
G8-E-08	Apply critical thinking to interact with text and explore causes and consequences of a problem and various solutions.	Activity "A" is on page # 77 of the textbook.			

• SLOs # 7 and 8 are sufficiently practiced in earlier grades.

• SLUS	f / and 8 are sufficiently practiced in earlier grades.				
		December (10 periods)			
	<ul><li>Use dictionary to:</li><li>Locate guide and entry word</li><li>Locate appropriate word definition</li></ul>	Activity "A" on page # 85 of the textbook.			Home Assignment
	Identify the speaker or narrator in a selection.	Activity on page # 82 of the textbook and Teacher's guideline			Ask students during the reading and after completion of text in oral.
	Recognize the author's purpose and point of view.	Activity on page # 82 of the textbook and (Teacher's guideline)			By explaining the theme of the unit and encouraging a discussion the teacher can get students to understand the author's purpose and point of view.
09	Classify use convert and make declarative (affirmative and negative), interrogative, exclamatory and imperative sentences.	Activity on page # 88 of the textbook.	Someone Who Works	10	Home Assignment (After a short introduction and one example)
G8-E-09	Identify and differentiate between simple and compound sentences.	Activity on page # 87 of the textbook.	Hard to Earn		Home Assignment (After a short introduction and one example)
	<ul> <li>Write a narrative in the first person which describes events:</li> <li>Use sequential order</li> <li>Use specific adjectives and adverbs</li> <li>Use appropriate tense</li> <li>Use appropriate transitional devices</li> <li>Include quotations, thoughts and emotions of the participants in the incident</li> </ul>	Activity "D" on page # 86 of the textbook.			<ul> <li>Guided Practice</li> <li>After explaining the basics, the teacher must complete activity through guided practice.</li> </ul>

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers
09 <b>G8-E-09</b>	<ul> <li>Choose appropriate word definition. Write a composition of three or more paragraphs following conventions of essay writing:</li> <li>Introductory paragraph</li> <li>Body paragraph</li> <li>Concluding paragraph</li> </ul>	Activity "B" on page # 86 of the textbook and Teacher's guideline	Someone Who Works Hard to		Guided practice
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Comprehension question activity "A" on page # 84-85 of the textbook	Earn		Allocate sufficient time/period for reading the Unit text given on 81-83 of the KP textbook.

• SLO # 2, 3, 9 and 10 are sufficiently practiced in earlier grades.

		December (7 periods)			
10 <b>G8-E-10</b>	<ul> <li>Read poem and give orally or in writing.</li> <li>Main idea</li> <li>Theme and its development</li> <li>Summary</li> <li>Personal response with justification</li> <li>Paraphrase</li> <li>Use paraphrasing skills to paraphrase stanzas:</li> <li>Mark thought groups in the stanza</li> <li>Restate the message in simple prose</li> <li>Replace poetic words with simple ones</li> </ul>	<ul> <li>Page # 92 of the textbook.</li> <li>Activity "A" page # 94 Question # 05 of the textbook.</li> <li>Activity "B" page # 95 of the textbook.</li> <li>Activity "A" page # 94 Question # 06 of the textbook.</li> </ul> Page # 94 and 95 of the textbook	What is Blessing	07	<ul> <li>For the main idea and paraphrase, teacher will share his/her personal input and explain.</li> <li>Allocate sufficient time for silent reading of the given poem.</li> </ul>
	Apply summary skills to familiar / unseen passages and poems to:  Write summary / precis of simple passages  Summarize poems  Apply rules of a, an and the wherever applicable in speech and writing articulate complex tongue twisters.  Identify and pronounce consonant clusters with developing accuracy in initial and final positions.	Activity "B on page # 95 of the textbook.  Page # 97 of the textbook.  Page # 96 of the textbook.			Home Assignment

#### **Rationale:**

• SLO # 1, 4, 6, 7 and 10 are sufficiently practiced in earlier grades.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	<b>Guidelines for Teachers</b>
		December (8 periods)			
	Make predictions about story line / content, characters, using contextual clues and prior knowledge.	Look at page 99 – 101 of the textbook. (picture)			Help students to make predictions about the pictures with the help of questioning.
	Use dictionary to locate guide words, locate entry words and choose appropriate word definitions.	Activity "A" on page # 103 of the textbook.			Home Assignment as done many times before.
	Use summary skills to pronoun antecedent relationship and transitional devices with in a paragraph.	Activity "B" on page # 103 of the textbook			After sequential order, summarize the story
	Read a story to retell it sequentially and summarize.	Activity "B" on page # 103 of the textbook. (For guidance only)			Provide any other story to retell it sequentially and summarize
	Recognize the others purpose.	Comprehension questions activity "A" 102-103 of the textbook.	The Devoted Mate		Post reading comprehension questions cover SLO's
	Read a text to analyze characters, their motives, motions and emotional responses.	Comprehension questions activity "A" 102 of the textbook.			Post reading activity comprehension questions will address the SLO
	Present a character sketch orally and in writing.	Activity "B" on page # 104			Guided practical
11 <b>G8-E-11</b>	<ul> <li>Write short narrative in the first or third person describing event and incidents:</li> <li>Use sequential order</li> <li>Use specific adjectives and adverbs</li> <li>Use appropriate tense</li> <li>Use appropriate transitional devices</li> <li>Include quotation (actual words) and thoughts and emotions of the participants of the incident.</li> </ul>	Activity "C" on page # 104 of the textbook.		08	Home assignment, as done many times before, and can't be done in class due to prevailing Covid-19 situation
	Classify adjectives into different types. Change and use degree of adjectives with reference to than and the	Look at page # 105 and 106 of the textbook.			
	Recognize and use absolute adjectives.	Look at page # 107 of the textbook.			After explanation student must complete activity on page # 107
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 102 of the textbook.			
	Give a personal response about characters and giving reasons to support the response	Discussion in class			Teacher will conduct and manage the oral activity

					Only for Academic Year 2020-2021
Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers
11	Locate the varying position of adjective in sentence	Page # 107 (last activity) Re arrange the			Teacher must complete sentence # 01 for student a an example
11	Form adjective from nouns and verbs	Page 108 form adjective from	The Devoted		One should be done by the teacher as an example
G8-E-11	Identify and use adjective phrases	Page # 108 and 109	Devoted Mate		<ul><li>After a detailed discussion</li><li>Student must complete activity at the end of page # 69</li></ul>
	4, 5, 6 and 18 are sufficiently practiced in earlier grades.	January (9 periods)			
	Use pre-reading strategies to predict the content of a text from topic / picture / title / headings / key words and visual etc. by using prior knowledge, asking	Activity on page 111 – 113 of the textbook.			Teacher will help students by initiating a discussion about the pictures.
	questions and contextual clues.  Write two paragraphs of comparison between persons, objects or place:	Activity on page 117 of the textbook.			Home Assignment
	<ul><li>Use appropriate similes for comparison</li><li>Use correct connectors of comparison.</li></ul>	(Writing)			nome / sargiment
12	Write a simple unified paragraph on a given topic:     Write a clear topic sentence using vivid verbs, modifiers etc.	Look at page # 117 for learning and			4 1 7

G8-E-12

Add adequate supporting details (example, Look at page # 117 for learning and The Chinese then activity "A" at 118 illustration, definition, evidence, comparison, New year contrast, cause and effect) to develop the main idea Use appropriate transitional devices with in a paragraph Illustrate use of prepositions of position, time, movement Look at page # 117 of the textbook. and directions. Look at page # 118 activity "B" of the Illustrate use of compound preposition. textbook. Look at page # 119 and 120 of the Illustrate use of since and for textbook. Look at page # 120 and 121 of the Use some prepositional phrases textbook.

Home Assignment

09

Teacher must explain concept from page # 117

Complete activity at page #118 (Students) guided activity

Page # 119 for discussion

Page # 120 as home Assignment

Page # 120 for discussion
Page # 121 (activity) for guided practice

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers
12 <b>G8-E-12</b>	Apply critical thinking to interact with text and use intensive reading strategies while reading.	Comprehension question activity "A" on page # 115 of the textbook.	The Chinese New year		
Rationa	le:				
• SLO #	2, 4, 6 and 7 are sufficiently practiced in earlier grades.				
		January (9 periods)			
	Use pre-reading strategies to predict the content of a text from topic / picture / title / headings / key words and visuals etc. by using prior knowledge, asking questions and contextual clues.	Activity on page 123 – 125 of the textbook.			Help students to predict with the help of pictures, through questioning
	Use summary skills to extract salient points and develop a mind map to summarize a text.	Activity "A" on page # 128 of the textbook.	Ibn-e-Sina, A Great Muslim Scientist	09	
	Recognize and use varying intonation patterns to show attitude and emotions.	Look at page 128 and 129 of the textbook.			Practical demonstration is mandatory
13	<ul> <li>Analyze written texts to use in their own writing, features of a simple descriptive composition about people.</li> <li>Finer detail of physical description of face, build, cloths etc. of a person</li> <li>Personality traits e.g. habits, attitudes, values etc.</li> </ul>	Look at page 128 of the textbook.			Home Assignment
G8-E-13	Recognize and use comma to separate on introductory phrase containing a verb from the main sentence.	Look at page 129 of the textbook.			<ul> <li>Example other than TB should be provided by teacher for better understanding.</li> <li>Page # 130 for discussion</li> <li>Page # 131 for guided practice</li> </ul>
	Recognize and use colon to:  Introduce a list of items Introduce a long quotation	Activity on page # 130 and 131 of the textbook.			
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 127 of the textbook.			
	Read a text to describe orally and in writing character traits using evidence from the text	Comprehension question # 4 How did you describe ibn-e-sina			By answering question # 4 SLO will be addressed
• SLO #	lle: 2, 3, 6 and 7 are sufficiently practiced in earlier grades.				

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	<b>Guidelines for Teachers</b>
		January (7 periods)			
	<ul> <li>Use paraphrasing skills to paraphrase stanzas</li> <li>Mark thought groups in the stanza</li> <li>Restate the message in simple prose</li> <li>Replace poetic words with simple ones.</li> </ul>	Activity "A" give at page # 138 of the textbook.			
	<ul> <li>Apply summary skills to familiar / unseen passages and poems to</li> <li>Write summary / precis of simple passages</li> <li>Summarize poems</li> </ul>	Activity "B" at page 138 of the textbook.	The Kingfisher	n 07	
	Deduce meaning of difficult words from context.	Activity on page 135 of the textbook.			
14	Identify and pronounce in minimal pairs common problem consonants including / v /, /w/, /ya/, /th/, /l/, /r/, etc.	Look on page 140 of the textbook.			
G8-E-14	Pronounce weak form of personal pronouns, modal verbs, their negatives, prepositions, articles and conjunctions.	Activity given is at page 139 of the textbook.			
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 137 of the textbook.			
	<ul> <li>Read poem and give orally or in writing.</li> <li>Main idea</li> <li>Theme and its development</li> <li>Summary</li> <li>Personal response with justification</li> <li>Paraphrase</li> </ul>	While reading text			Explain the concepts of the main idea, theme and its development, and lead students to predict and then verify / rectify the mentioned / areas

• SLO # 1, 4, 6, 7 and 11 are sufficiently practiced in earlier grades.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers
		February (6 periods)			
	<ul> <li>Use dictionary to:</li> <li>Locate guide and entry words</li> <li>Choose appropriate words definition and identify part of speech</li> <li>Identify pronunciation with the help of pronunciation key.</li> </ul>	Activity "A" on page 147 of the textbook.		06	Home Assignment
	Choose appropriate synonyms from thesaurus	Activity "B" on page 147 of the textbook.			Home Assignment
	Write the address on the envelop clearly ad in proper format.	Activity "B" on page 148 of the textbook.	A Family Trip to Naran		Follow a template and guide students to attempt page # 148
15 <b>G8-E-15</b>	<ul> <li>Analyze written texts to use in their own writing, features of a simple descriptive composition about places</li> <li>Sufficient general details and finer details of size, colour, shape and texture</li> <li>Defining characteristics of on object / place</li> <li>Atmosphere of a place</li> <li>Correct verb form</li> <li>Appropriate adjectives and adverbs for vivid effect</li> <li>Details in appropriate order</li> </ul>	Activity on page 148 of the textbook and teacher's guideline for activity.			Guided practice
	Recognize and use hyphen to indicate the division of a word at the end of a line.	Activity on page 149 and 150 of the textbook.			
	<ul> <li>Recognize the use of dash as</li> <li>A separator to indicate that a sentence has been broken off.</li> <li>An indicator of new direction of thoughts</li> <li>Apply critical thinking to interact with text and use</li> </ul>	Page # 150			
	intensive reading strategies while reading.  • Scan to answer short questions.	Comprehension question activity "A" on page # 146 of the textbook.			

• SLO # 3 is sufficiently practiced in earlier grades.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers
		February (6 periods)			
	Make predictions about story line / content, characters, using contextual clues and prior knowledge.	Activity on page 152 and 153 of the textbook.			
	Use dictionary to locate guide words, locate entry words and choose appropriate word definition.	Activity "A" on page 155 of the textbook and teacher's guideline for activity.			Home Assignment
	Identify the speaker or narrator in a selection	While / post reading (oral activity)			Guide students during/post reading
	Present a character sketch orally in writing.	Comprehension question # 1	The Life we build for ourselves	06	
16 <b>G8-E-16</b>	<ul> <li>Analyze written texts to use in their own writing features of simple expository composition showing cause and effect of an event or an action.</li> <li>Logical order of events or action</li> <li>Appropriate connectives of cause and effect</li> </ul>	Activity "C" on page 155 of the textbook.			Explain the term and ask students to write expository essay in class (guided activity)
	Identify function of direct and indirect speech in texts.	Activity on page 157 of the textbook.			Provide some examples other than from the textbook.
	Recognize the rules, and change the narration of statements, requests / orders and questions.	Activity on page 161of the textbook.			Enough practice is required
	Recognize and use quotation marks to enclose a direction quotations	Activity on page 157 of the textbook.			Provide sufficient examples
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 155 of the textbook.			
Rationa • SLO #	<b>Ile:</b> 3, 4, 6 and 7 are sufficiently practiced in earlier grades.				

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	<b>Guidelines for Teachers</b>
		February (6 periods)			
	Use pre-reading strategies to predict the content of a text from topic / picture / title / headings / key words and visuals etc. by using prior knowledge, asking questions and contextual clues.	Activity on page 163 and 164 of the textbook.	The Guest House		Help students to predict with the help of pictures, through questioning
	Read poem and give orally or in writing:  Main idea Theme and its development Summary personal response paraphrase	Activity "A" give at page # 166 of the textbook. (for Theme) Activity "B" give at page # 167 of the textbook (for summary) Activity "A" give at page # 166, question # 4 of the textbook (for personal response) Activity "A" give at page # 167 of the textbook. (For paraphrase).			Focus on the SLO while and post reading. Keep on asking and guiding students about these areas.
17 <b>G8-E-17</b>	Use paraphrasing sills to paraphrase stanzas  Mark thought groups in the stanza  Restate the message in simple prose  Replace peotic words with simple ones	Activity on page 167 of the textbook for activity.		06	Home Assignment, as done many times before.
	Apply summary sills to familiar / unseen passages and poems to:  Write summary / precis of simple passages  Summarize poems	Activity "B" on page 167 of the textbook for activity.			Home Assignment, as done many times before.
	Deduce meaning of difficult words from context.	Activity on page 164 of the textbook for activity.			Help students to deduce meaning.
	Classify and use different kinds of adverbs learnt earlier.	Previously done			Home Assignment, as done earlier.
	Recognize varying position of adverb in sentences according to their kind and importance	Activity "Position of Adverb" on page # 168 of the textbook.			Guided activity
	Identify and use degrees of comparison of adverbs.	Activity on page # 169 of the textbook for activity.			Guided activity
	Use some adverbial phrases.	Activity on page # 171 of the textbook for activity.			Home Assignment

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	<b>Guidelines for Teachers</b>
G8-F-17 int	HENSIVE TEACHIO STIATECHES WITHE TEACHIO	Comprehension question activity "A" on page # 166 of the textbook.	The Guest House		

• SLO # 4 and 8 are sufficiently practiced in earlier grades.

	February (7 periods)								
	Use pre-reading strategies to predict the content of a text from topic / picture / title / headings / key words and visuals etc. by using prior knowledge, asking questions and contextual clues.	Activity on page # 173 ad 175 of the textbook for activity.			Help students to predict with the help of pictures, through questioning				
	Use a variety of pre-writing strategies such as brainstorming mind mapping, outlining etc.	Activity "A" / discussion on page # 179 of the textbook for activity.			Oral activity must be done in class.				
18 <b>G8-E-18</b>	<ul> <li>Use dictionary to:         <ul> <li>Locate guide words, locate entry words, choose appropriate word definition.</li> <li>Identify parts of speech of word through abbreviation used</li> </ul> </li> </ul>	Activity "C" on page 179 of the textbook.	Cleanliness is next to Godliness	07	Home Assignment				
	Recognize and use passive voice for various purposes.	Activity on page # 181 and 182 of the textbook for activities.			Enough practice should be done in class.				
	Recognize and rectify faulty punctuation in given passages and own work	Activity on page # 180 of the textbook for activity			Guided activity				
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 177 of the textbook.							

#### **Rationale:**

• SLO # 3 is sufficiently practiced in earlier grades.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers
		March (6 periods)			
	Predict the content of a text from topic / picture / title / headings / key words and visuals etc. by using prior knowledge, asking questions and contextual clues.	Activity at page # 185 – 187 of the textbook for activity.			Help students to predict with the help of pictures, through questioning
	Use summary skills to extract salient points and develop a mind map to summarize a text.				Guide the students "how to do" and assign task as homework.
19	<ul><li>Use dictionary to:</li><li>Choose appropriate word definition</li><li>Locate entry word and guide word</li></ul>		Etiquettes of Travelling	06	Home Assignment, as done many times before.
G8-E-19	Use first and second conditional sentences.	Activity on page # 191 and 192 of the textbook for activity.			Page # 191 and 192 of the textbook is for learning and discussion purposes after that student have to complete activity at page 192.
	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 189 of the textbook.			
• SLO #	<b>le:</b> 2, 3 and 8 are sufficiently practice in earlier grades.				
	Make predictions about story line / content, characters, using contextual clues and prior knowledge.	Activity on page # 196 – 197 of the textbook			Help students to predict with the help of pictures, through questioning
	Use dictionary to locate guide words, locate entry words and choose appropriate word definition.	Activity "A" on page # 199 of the textbook.			Home Assignment
20	Recognize the authors purpose	Post reading, discussion activity. (Oral activity)			After reading the text, initiate discussion, must motivate, encourage and guide students to understand the author's purpose (oral activity)
	Recognize and use parenthesis (round brackets) to:		The farmer's Dog	06	
G8-E-20	<ul> <li>Enclose numbers or letters in enumeration in the text.</li> <li>Express an amount in numbers previously expressed in words.</li> </ul>	Activity on page # 200 and 201 of the textbook for activities.	209		Explanation by teacher and then guided practice at page 201 of the textbook.
	<ul> <li>Mark off explanatory or supplementary material</li> <li>Recognize and use omission marks or ellipses to signify the omission or deletion of letters or words in sentences.</li> </ul>	Activity on page # 201 of the textbook for activity.			Provide some examples other than the textbook for better understanding.

Unit No	Student Learning Outcomes (SLOs)	Recommended Activities	Topic	No. of Periods	Guidelines for Teachers
20	Give personal response about character giving reasons to support the response.	Activity "A" on page 199 and questions # 7 of the textbook for activity.	The farmer's		Answer of question # 7 will address the SLO successfully.
G8-E-20	Apply critical thinking to interact with text and use intensive reading strategies while reading.  Scan to answer short questions.	Comprehension question activity "A" on page # 199 of the textbook.	Dog		

## **Rationale:**

• SLOs # 3, 4, 5, 7, 8, 10 and 11 are sufficiently practice in earlier grades.



## **General Science Grade-VIII**

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	Guidelines for Teachers
			September (8 peri	ods)		
		<ul> <li>Describe the structure and function of the nervous system.</li> </ul>	<ul> <li>Nervous System</li> <li>The Central Nervous System (CNS)</li> <li>The Brain (fore brain, mid brain, and hind brain)</li> <li>The Spinal Cord</li> </ul>		02	Use prepared charts / models of nervous system and explain different parts of nervous system.
	Human Organ Systems	<ul> <li>Describe the working of the nervous system through a model.</li> </ul>	<ul> <li>The Peripheral Nervous System (PNS)</li> <li>Neurons and their types (neuron, neuron structure)</li> <li>Types of neurons (sensory neurons, motor neurons, associative / inter neurons)</li> <li>Working of nervous system.</li> </ul>	Page 1- 18	02	<ul> <li>Draw fig 1.5 on writing board and explain different parts of neuron.</li> <li>Give Exercise C, (iii) as homework.</li> <li>Explain the location of different types of neurons in human body.</li> <li>Students to draw a diagram illustrating the working of nervous system in their notebooks.</li> </ul>
01 <b>G8-S-01</b>		<ul> <li>Explain reflex action with an example.</li> <li>Differentiate between voluntary and involuntary actions they have experienced.</li> </ul>	<ul><li>The reflex actions</li><li>(voluntary actions, involuntary or autonomic actions)</li></ul>		01	<ul> <li>Explain the concept of reflex action through a mini lecture.</li> <li>Take students experimental ideas on reflex action.</li> </ul>
		<ul> <li>Define excretion.</li> <li>Draw and label human excretory system.</li> <li>Describe the role of kidney in excretion of waste.</li> </ul>	<ul> <li>Excretory system</li> <li>Human kidney (internal structure of kidney, nephrons)</li> <li>Role of kidney</li> </ul>		01	<ul> <li>Explain with the help of prepared chart of human kidney.</li> <li>Ask students to draw structure of kidney in their notebooks.</li> </ul>
		<ul> <li>Investigate the possible causes of the malfunctioning of kidneys.</li> </ul>	<ul><li>Malfunctioning of kidney</li><li>Formation of stones in kidney</li><li>Renal failure</li></ul>		01	<ul> <li>Explain to students how stone formation takes place in kidney.</li> <li>Fig 1.1.3 to be illustrated in notebooks</li> <li>Exercise Part A, B and C to be discussed in class and written down in homework notebooks.</li> </ul>
		<ul> <li>Suggest techniques to cure problems of kidneys.</li> </ul>	<ul> <li>Treatment of malfunctioned kidneys (Removal of kidney stones, dialysis, kidney transplant)</li> <li>Key Points</li> <li>Exercise Part D ( iii)</li> </ul>		01	<ul> <li>Explain dialysis and kidney treatment.</li> <li>Summarize with the given key points.</li> <li>Discuss Exercise D, (iii) in classroom.</li> </ul>

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	Guidelines for Teachers
			October (6 perio	ds)		
		Differentiate between mitosis and meiosis.	<ul> <li>Cell division</li> <li>Mitosis</li> <li>Meiosis</li> <li>Difference between mitosis and meiosis.</li> </ul>	Page 19 - 26	02	<ul> <li>Explain mitosis and meiosis</li> <li>Students to identify and differentiate between mitosis and meiosis with the help of charts / models.</li> <li>List down the differences in the note books</li> </ul>
	Heredity in Organisms	<ul> <li>Identify DNA and chromosomes in the cell diagram.</li> </ul>	Chromosomes, Genes and DNA		01	<ul> <li>Explain the structure of DNA and genes with the help of the Fig 2.3 and 2.4 to be drawn on the writing board.</li> <li>Give exercise Part A and B to students to solve</li> </ul>
02 <b>G8-S-02</b>		<ul> <li>Define heredity and recognize its importance in transferring of characteristics from parents to off springs.</li> <li>Identity the characteristics that can be transferred from parents to off springs.</li> </ul>	<ul><li>Heredity</li><li>Inheritable and non-inheritable Characters</li></ul>		01	<ul> <li>Explain students how to differentiate inheritable and non-inheritable characteristics.</li> <li>Give exercise C (iii) as homework to students.</li> </ul>
		Compare characteristics related to ear and eye color.	<ul> <li>Examples of Inheritable characters in human (eye color, detached and attached earlobes)</li> <li>Key Points</li> <li>Exercise Part D</li> </ul>		02	<ul> <li>Discuss in class (heritable characteristics in human).</li> <li>Conduct a small research activity to find students eye color, earlobes and rolling of tongue in class room and record data and share results with students.</li> <li>Summarize with the given key points.</li> <li>Students to answer exercise questions in part D.</li> </ul>

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	Guidelines for Teachers	
October (10 periods)							
		<ul> <li>Define Biotechnology.</li> <li>Explain how DNA is copied and made.</li> <li>Describe the relationship between DNA, genes and chromosomes.</li> </ul>	<ul> <li>Introduction and major breakthrough.</li> <li>DNA replication</li> <li>Relationship between DNA, genes and chromosome.</li> </ul>		02	<ul> <li>Take help from DNA replication videos/ textbooks.</li> <li>Clarify each step of DNA replication with the help of writing board.</li> <li>Explain fig 3.1 and 3.2</li> <li>Students to draw these figures in their notebooks</li> </ul>	
	Biotechnology	<ul> <li>Define bacterium.</li> <li>Explain how genes are introduced into a bacterium.</li> </ul>	<ul> <li>Bacteria (singular bacterium)</li> <li>Introduction of genes into a bacterium (Process of introducing gene into bacterium)</li> </ul>	Page 27- 38	02	<ul> <li>Draw and label Bacterium structure on writing board and explain it.</li> <li>Draw fig 3.4 on writing board / charts and explain each step of introducing gene into bacterium.</li> <li>Homework: Students to draw and label the structure of Bacterium in the notebooks.</li> </ul>	
03 <b>G8-S-03</b>		<ul> <li>List some biotechnological products used in daily life.</li> <li>Explain that genetic modification in different foods can increase the amount of essential nutrients.</li> </ul>	<ul> <li>Biotechnology in daily life</li> <li>Genetic modifications</li> <li>Usefulness of genetically modified organisms (Microorganism resistance, improved nutrition and quality of food)</li> </ul>		02	<ul> <li>Explain the role of biotechnology in daily life.</li> <li>Explain terms like GMOs, GM, and Transgenic chicken.</li> <li>Discuss Exercise A, B and C (ii) in classroom.</li> </ul>	
		List general applications of biotechnology in various fields.	<ul> <li>Application of Biotechnology</li> <li>(Biotechnology and agriculture, food production and preservation, health, environment)</li> </ul>		02	Use mini lecture to explain the concept applications of biotechnology.	
		<ul> <li>Explain how biotechnology allows meeting the nutritional needs of growing populations.</li> </ul>	<ul><li>Role of Biotechnology in meeting the nutritional needs</li><li>Key points</li></ul>		02	<ul> <li>Give examples of genetically improved products.</li> <li>Summarize with the given key points.</li> <li>Give Exercise D (ii) as homework.</li> </ul>	

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	<b>Guidelines for Teachers</b>
			November (9 perio	ods)		
		<ul> <li>Explain the sources, properties and harmful effects of air pollutants.</li> </ul>	<ul> <li>Pollution</li> <li>Air Pollutants and their sources</li> <li>Sulphur dioxides (SO2)</li> <li>Nitrogen oxides (NO2)</li> <li>Carbon monoxides (CO)</li> <li>Chlorofluorocarbons (CFCs)</li> </ul>		02	<ul> <li>Question the students about their previous knowledge on Pollution?</li> <li>Question the students about their previous knowledge on Pollution?</li> <li>Describe the different types of pollutions.</li> <li>Students to list down pollutants and their sources with the help of textbook.</li> </ul>
04	Pollutants and their	<ul> <li>List problems in human organ systems caused by air pollutants.</li> </ul>	<ul> <li>Harmful effects of air pollutants         (acid rain, eutrophication, ground level ozone)</li> <li>Problems Caused by pollutants in Human organ system</li> <li>Effects of Sulphur dioxides</li> <li>Effects of oxides of Nitrogen</li> <li>Effects of carbon monoxide</li> <li>Effects of chlorofluorocarbons (CFCs)</li> </ul>	Page 39 - 54	01	<ul> <li>Students to identify harmful effects of air pollutants.</li> <li>Students open discussion on problem caused by pollutants in human organ system.</li> </ul>
G8-S-04	Effects on the Environment	<ul> <li>Plan and conduct a campaign that can help to reduce air pollution in their local environment.</li> <li>Explain the greenhouse effect.</li> <li>Carry out a research to explain global warming and its likely effects on life on earth.</li> <li>Design a model to explain the Greenhouse effect.         Explain the formation of acid rain and identify its consequences on living and nonliving things.     </li> </ul>	<ul> <li>Effect of human activities on human environment.</li> <li>Greenhouse effect</li> <li>Global warming</li> <li>Acid rain</li> </ul>		01	<ul> <li>Explain the concept of</li> <li>Greenhouse Effect by using Fig 4.5</li> <li>Global Warming by using Fig 4.6</li> <li>Acid Rain by using Fig 4.7</li> <li>Give Exercise D, (ii) as homework.</li> </ul>

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	Guidelines for Teachers
04	Pollutants and their	<ul> <li>Describe the causes and effects of ozone depletion.</li> <li>Define deforestation.</li> <li>State the effects of deforestation on the environment.</li> <li>Identify human activities that have long-term adverse consequences on the environment.</li> </ul>	<ul><li>Depletion of Ozone Layer</li><li>Deforestation</li></ul>		01	<ul> <li>Use mini lecture to explain Ozone Layer with the help of Fig 4.9</li> <li>Let the students' discus deforestation and its effects</li> </ul>
G8-S-04	Effects on the Environment	<ul> <li>Explain the importance of local and global conservation of natural resources.</li> </ul>	<ul> <li>Effects of human activities on wild life</li> <li>Conservation of resources (renewable resources, non-renewable resources)</li> </ul>	Page 39 - 54	01	<ul> <li>Discuss the effects of human activity on environment –wild life and natural resources.</li> <li>Students to make a list of renewable and non-renewable resources.</li> </ul>
		<ul> <li>Suggest ways in which individuals, organization and government can help to make earth a better place to live.</li> </ul>	<ul><li>Conservation measure</li><li>Saving the earth</li><li>Key Points</li></ul>		02	<ul> <li>Discussion on how we can save earth.</li> <li>Summarize with the help of given Key points</li> <li>Give exercise C, (v) as homework.</li> </ul>
			November (7 peri	ods)		
		<ul> <li>Define chemical reactions and give examples.</li> <li>Explain the rearrangement of atoms in chemical reactions.</li> </ul>	<ul> <li>Chemical reactions and their examples</li> <li>Re-arrangement of atoms in chemical reaction.</li> </ul>		01	<ul> <li>Use mini lecture to explain the term chemical reaction with examples from daily life.</li> <li>Explain, re-arrangement of atoms in chemical reaction by drawing fig 5.1 on writing board.</li> </ul>
05 <b>G8-S-05</b>	Chemical Reactions	<ul> <li>Define the law of conservation of mass.</li> <li>Identify the nature of a chemical change in various reactions.</li> <li>Describe changes in the states of matter in chemical reaction.</li> </ul>	<ul> <li>Characteristic of chemical reactions</li> <li>Law of conservation of mass.</li> <li>Changes in states of matter</li> <li>Chemical equations</li> <li>(characteristics of a chemical equation)</li> </ul>	Page 55- 67	02	<ul> <li>Use mini lecture on characteristics of chemical reactions</li> <li>Perform activity 5.2 in front of students</li> <li>Give activity 5.3 as homework to students.</li> <li>Discuss the characteristics of chemical equations with examples</li> <li>Give exercise D, (ii) (b) as project to students.</li> </ul>

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	Guidelines for Teachers
		Explain the balancing of chemical equations.	Balancing of chemical equation		01	<ul> <li>Explain balancing of chemical equation by defining example 1, 2 on writing board.         Maximum practice of balancing of equations to be given.     </li> <li>Give activity 5.4 as homework</li> </ul>
05	Chemical	Explain the types of chemical reactions with examples.	<ul> <li>Types of chemical reactions.</li> <li>Addition or synthesis reactions.</li> <li>Decomposition reactions.</li> <li>Single displacement reactions.</li> <li>Double displacement reactions</li> </ul>	Page 55- 67	01	<ul> <li>Use mini lecture to explain different types of reactions</li> <li>Perform activity 5.5 on writing board and ask students to complete the reactions.</li> </ul>
G8-S-05	Reactions	<ul> <li>Explain the energy changes in chemical reactions.</li> </ul>	Energy changes in chemical reactions (endothermic reaction, exothermic reaction)		01	<ul> <li>Explain the terms endothermic and exothermic.</li> <li>Ask students to list various endothermic and Exothermic sources</li> <li>Give students project (Page-67) to complete and write the data in their notebooks.</li> </ul>
		Describe the importance of exothermic reactions in daily life.	<ul><li>Importance of exothermic reactions in daily life.</li><li>Key Points</li></ul>		01	<ul> <li>Class discussion: Allow students to participate and share their ideas on the importance of exothermic reactions in their daily life.</li> <li>Summarize with the help of given key points.</li> <li>Exercise part A, B, C and D</li> </ul>
			December (9 perio	ods)		
		<ul><li>Define the terms acid, alkali and salt.</li><li>Define indicators.</li></ul>	<ul><li>Definition of Acid, Alkali and salt</li><li>Physical properties of acids</li><li>Chemical properties of acids</li></ul>		02	<ul> <li>Use mini lecture to explain the term acid and its properties with the help of writing board.</li> <li>Discuss fig 4.1 in class room</li> </ul>
06 <b>G8-S-06</b>	Acids, Alkalis And Salts	Describe the properties of alkalis.	<ul><li>Alkali</li><li>Physical properties of alkalis</li><li>Chemical properties of alkalis</li></ul>	Page 68 - 81	02	<ul> <li>Explain the term alkali, discuss the difference between alkali and base.</li> <li>Students to make a list of things or materials having alkaline taste.</li> </ul>
		Describe the properties of salts.	<ul><li>Salt</li><li>Properties of salt</li></ul>		01	<ul> <li>Use mini lecture on salts and its properties.</li> <li>Ask students to share their experiences of using salts in their daily life.</li> </ul>

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	<b>Guidelines for Teachers</b>
	Acids, Alkalis And Salts	<ul> <li>Explain the uses of acid, alkali and salt in daily life.</li> </ul>	<ul><li>Uses of acid, alkalis and salts.</li><li>(uses of acids, uses of alkalis, uses of salts)</li></ul>		02	• Example uses of acids, alkalis and salts with the help of Fig 6.4, 6.5 and 6.6.
06 <b>G8-S-06</b>		<ul> <li>Use indicators to identify acids, alkalis and neutral substances</li> <li>Investigate the color changes in the extracts of various flowers and vegetables by adding acids and alkalis.</li> </ul>	<ul> <li>Acid-Alkali Indicators</li> <li>Fruit and flower extracts as indicators.</li> <li>Key Points</li> </ul>	Page 68 - 81	02	<ul> <li>Conduct activity 6.1 and allow students to observe the results of red litmus paper, blue litmus paper, acid, alkali or natural.</li> <li>Summarize with the help of given key points.</li> <li>Give exercise parts A, B, C and D to the students to solve.</li> </ul>
			December (7 perio	ods)		
		<ul> <li>Define the term pressure.</li> <li>Identify the units of pressure.</li> <li>Describe the causes of gas pressure in a container.</li> </ul>	<ul><li>Pressure, force and area.</li><li>(Units of pressure)</li></ul>		01	<ul> <li>Use mini lecture to define pressure, force and area</li> <li>Conduct activity 7.1 (Pressure) and involve students by asking questions.</li> </ul>
07		<ul> <li>Explain hydraulics and hydraulic system by giving examples.</li> </ul>	<ul><li>Hydraulics</li><li>(hydraulic system, hydraulic press, hydraulic brakes, water pressure)</li></ul>		02	<ul> <li>Discuss hydraulics and Pascal's Principle</li> <li>Perform Activity 7.2 ( Pascal Principle)</li> <li>Take example of hydraulics from students that are used in our daily life.</li> </ul>
G8-S-07	Force and Pressure	• Explain how gases behave under pressure.	<ul><li>Pneumatics: (Pressure of gases)</li><li>Causes of gas pressure.</li></ul>	Page 82- 93	01	<ul><li>Use mini lecture to explain pressure of gases.</li><li>Explain pressure of gas by performing Activity 7.4</li></ul>
		• Explain the working of aerosols.	<ul><li>Behavior of gas under pressure</li><li>Aerosols</li></ul>		01	<ul><li>Use daily life example to explain.</li><li>Give exercise c, (iv) as homework.</li></ul>
		<ul> <li>Describe the term atmospheric pressure.</li> <li>Identify the application of gas pressure.</li> </ul>	<ul> <li>Atmospheric pressure</li> <li>(Application of gas pressure)</li> <li>Key Points</li> <li>Exercise a, B, C and D</li> </ul>		02	<ul> <li>Use mini lecture to explain atmospheric pressure with examples of gas behavior under pressure.</li> <li>Summarize with the help of given key points.</li> <li>Question / Answer technique to clear concept of gas pressure.</li> </ul>

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	Guidelines for Teachers		
	January (8 periods)							
		• Define a physical quantity with examples.	<ul><li>Physical quantities</li><li>Measurement of physical quantities</li></ul>		02	<ul> <li>Define base quantities and derived quantities.</li> <li>Draw Table 8.1 on writing board to explain base quantities and their units (Exercise C, (i))</li> </ul>		
		<ul> <li>Interconvert smaller units and bigger units.</li> </ul>	System International Units		01	Explain by using Table 8.2		
08 <b>G8-S-08</b>	Measurement Of Physical Quantities	<ul> <li>Interpret SI units in daily life.</li> <li>Investigate why it is desirable for scientists to use the SI units in their work.</li> </ul>	<ul> <li>System International Units in daily life.</li> <li>Meter</li> <li>Kilogram</li> <li>Cubic meter and Liter</li> <li>Second</li> </ul>	Page 94 - 104	02	<ul> <li>Explain SI-units by demonstrating meter ruler, kilogram stone, and wall clock and liter jug in front of classroom.</li> <li>Perform Activity 8.3 in class.</li> </ul>		
G0-3-00		Apply the prefixes milli, and centi and kilo and interpret the units.	Prefixes and their use in inter conversion of units.		01	<ul><li>Use mini lecture to explain the concept.</li><li>Discuss Activity 8.3 in classroom.</li></ul>		
		<ul> <li>Select and use measure instruments.</li> <li>Measure the volume of liquid by reading correct meniscus.</li> </ul>	<ul> <li>Instruments for Measurement.         (Meter ruler, measuring cylinder, measuring flasks, pipette.)     </li> <li>Key Points</li> </ul>		02	<ul> <li>Discuss instruments of measurement by showing meter ruler, measuring cylinder, measuring flask, and pipette if available.</li> <li>Summarize with the help of given key points.</li> <li>Exercise; A, B, C, and D</li> </ul>		
			January (8 period	ds)				
		<ul> <li>Describe the sources and effects of heat.</li> </ul>	Sources and effects of heat		01	Use mini lecture on different sources of heat and effects of heat.		
09	Sources and Effects of Heat Energy	• Explain thermal expansion of solids, liquids and gases.	<ul><li>Thermal expansion and contraction.</li><li>Thermal expansion of solids.</li></ul>	Page 105 - 118	01	<ul> <li>Discuss with students about thermal expansion and contraction.</li> <li>Use mini lecture to explain thermal expansion of solids.</li> </ul>		
G8-S-09		Describe the uses of expansion and contraction of liquids.	<ul> <li>Thermal expansion of liquid</li> <li>Thermal expansion of gases</li> <li>Uses of expansion and contraction of liquids.</li> </ul>		01	<ul> <li>Explain thermal expansion of liquids and gases with examples</li> <li>Perform activity 9.4 (thermal expansion of gas), if apparatus is available.</li> </ul>		

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	Guidelines for Teachers
		<ul> <li>Investigate the processes making use of thermal expansion of substances.</li> <li>Explore the effects and applications of expansion and contraction of solids</li> </ul>	<ul> <li>Advantages</li> <li>Applications of expansion and contraction of solids (fixing a metal tyre into a wheel, riveting, fixing an axle of wheel, fire alarms, electric iron.</li> </ul>		01	<ul> <li>Discuss application and advantages of expansion of solids.</li> <li>Explain by referring to Fig 9.2,9.3,9.4 and 9.6</li> </ul>
09 <b>G8-S-09</b>	Sources and Effects of Heat Energy	<ul> <li>Investigate the means used by scientists and engineers to overcome the problems of expansion and contraction in everyday life.</li> <li>Identify the damages caused by expansion and contraction in their surrounding and suggest ways to reduce these damages.</li> </ul>	Effects of expansion and contractions of solids in everyday life (concrete road surface, railway tracks, bridges, telephone wires / overhead power cables, pipelines.)	Page 105 - 118	01	Discuss with students about effects of expansion and contractions of solids in everyday life.
		Explain the peculiar behavior of water during contraction and expansion.	Peculiar behavior of water expansion and contraction.		01	<ul> <li>Discuss the peculiar behavior of water during expansion and contraction. Fig 9.12</li> <li>Exercise D, (iii) discuss in classroom.</li> </ul>
		Describe the working of thermometer.	<ul> <li>Thermometer (scales of temperature, working of thermometer)</li> <li>Key Points</li> </ul>		02	<ul> <li>Show clinical thermometer to students and explain its parts</li> <li>Perform group activity for measuring temperature.</li> <li>Summarize with the help of given key points.</li> <li>Exercise A, B, C and D</li> </ul>
			February (8 perio	ds)		
10 <b>G8-S-10</b>	Lenses	<ul><li>Define Lens.</li><li>Differentiate between the different types of lenses.</li></ul>	<ul> <li>Lenses</li> <li>(convex lens, concave lens)</li> <li>Terms related to lenses.</li> <li>(center of curvature, principle focus / focal point, optical center, principle axis, focal length)</li> </ul>	Page 119 - 134	02	<ul> <li>Use mini lecture to define lens and its type with actual lenses or diagrams.</li> <li>Draw figure 10.4 on writing board to explain terms related to lenses.</li> <li>Given exercise C (v) as homework.</li> </ul>

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	Guidelines for Teachers
		Describe the image formation using a lens by ray diagram	<ul><li>Ray diagrams</li><li>Image formation by convex lens</li><li>Image formation by concave lens</li></ul>		02	<ul> <li>Explain Ray diagram by drawing figures 10.5, 10.6, 10.7 on writing board.</li> <li>Discuss image formation by convex and concave lens by drawing Fig 10.8, 10.9 10.10, 10.11, 10.12 and 10.13 on writing board.</li> </ul>
		• Compare and contrast the working of a human eye with the lens camera.	<ul> <li>Image formation in cameras and human eyes (Cameras, Human Eye)</li> </ul>	Page 119 - 134	01	<ul> <li>Use mini lecture to explain the commonality between camera and eye.</li> <li>Discuss human eye by using Fig 10.14 and 10.16</li> </ul>
10 <b>G8-S-10</b>	Lenses	<ul> <li>Explain how eye focuses by altering thickness of eye lens.</li> <li>Investigate how eyes get used to darkness after sometime.</li> <li>Explain how lenses are used to correct short sightedness and long sightedness</li> </ul>	<ul> <li>Defects of eye and their correction (Short sightedness (correction), Long sightedness (correction))</li> <li>How eyes adjust to darkness after sometime</li> </ul>		02	<ul> <li>Discuss eye defects and correction through use of lenses</li> <li>Discuss exercise part D (iii) in classroom.</li> </ul>
		Identify the types of lenses uses for various purposes in daily life.	<ul> <li>Types and uses of lens</li> <li>(Double convex lens, Plano-convex lens, Plano-concave lens , Concavo-convex lens, Convexo-concave lens, Double concave lens)</li> <li>Key Points</li> </ul>		01	<ul> <li>Draw fig 10.19 on writing board to explain types of lenses</li> <li>Students to draw different types of lenses and label them.</li> <li>Discuss uses of lenses</li> <li>Summarize with the help of given key points.</li> <li>Ask students to do exercise A, B, C and D in their notebooks</li> </ul>
			February (8 perio	ds)		
		Design an experiment to generate electricity.	<ul><li>Generating electricity</li><li>(Experiment)</li></ul>	Page 135 - 148	01	Discuss electricity producing appliances
11	Electricity in Action	Explain the working of model generator.	<ul><li>Working of A.C generator</li><li>Working of a bicycle dynamo (Portable generator)</li></ul>		01	Draw figure 11.5 and 11.6 on writing board to explain working of AC generator and Bicycle dynamo
G8-S-11	ACIIOII	Identify the simple devices that generate electricity in daily life	<ul> <li>Other sources of electricity</li> <li>(The battery, Hydroelectric power, Wind power, Nuclear power, Thermal power, Solar power)</li> </ul>		02	Ask students to make a list of simple devices that generate electricity in daily life

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	<b>Guidelines for Teachers</b>			
		<ul> <li>Relate problems involved in generating electricity.</li> <li>Design and demonstrate the working of a power station.</li> <li>List types of energy being used in power stations.</li> </ul>	<ul><li>The problems in generating electricity.</li><li>Working of a power station</li></ul>	Page 135 - 148	01	<ul> <li>Discussion on Exercise C, (ii)</li> <li>Use mini lecture to explain the project pg-168 (working of power station)</li> </ul>			
11 <b>G8-S-11</b>	Electricity in Action	<ul> <li>Describe basic components of an electronic system.</li> <li>List component that are needed to turn A.C to D.C.</li> </ul>	<ul> <li>Electronic systems (resistors, capacitors, diode, transistor, integrated circuit (IC)</li> <li>Conversion of A.C to D.C.</li> </ul>		01	<ul> <li>Explain electronic system by showing resistors, capacitor, diode, transistors, integrated circuits to students if available</li> <li>Use mini lecture to explain conversion of AC to DC.</li> </ul>			
		<ul> <li>State how output components in various devices could be used in their schools and surroundings.</li> </ul>	<ul><li>Use of various electronic devices (input, processor , output)</li><li>Key Points</li></ul>		02	<ul> <li>Use mini lecture to explain the uses of electronic devices</li> <li>Students to make a list of input and output devices.</li> <li>Summarize with the help of given key points.</li> <li>Exercise A, B, C and D</li> </ul>			
	March (8 periods)								
12	Exploring Space	<ul> <li>Describe development of tools and technologies used in space exploration.</li> </ul>	<ul> <li>Tools and technologies used in space exploration</li> <li>Telescope</li> <li>Types of telescope</li> <li>Optical telescope</li> </ul>	Page 149 - 162	01	<ul> <li>Discussion on space explorations and technologies used.</li> <li>Explain telescope and its working. Discuss different types of telescopes.</li> <li>Give Exercise D, (i) as homework</li> </ul>			
G8-S-12		• Explain that how astronauts survive and research in space.	<ul><li>Radio telescope</li><li>Broad spectrum telescopes</li></ul>		01	<ul> <li>Discussion on radio telescope and Broad spectrum telescope and its construction.</li> <li>Give Exercise D, (i) as homework</li> </ul>			
		<ul> <li>Identify the technological tools used in space exploration.</li> </ul>	<ul><li>Space-crafts</li><li>Types of space crafts</li><li>Space probes</li></ul>		01	<ul> <li>Class discussion with teachers input and guidance on Space-crafts.</li> <li>Show pictures of space crafts and space probes in classroom.</li> </ul>			

Unit	Topic/Sub Topic	Student Learning Outcomes (SLOs)	Contents	Recommended Activities	No. of Periods	Guidelines for Teachers
		<ul> <li>Identify new technologies used on earth that have developed as a result of the development of space technology.</li> </ul>	<ul><li>Space stations</li><li>Space shuttle</li><li>Spectroscopes (working)</li></ul>		01	<ul> <li>Use mini lecture with charts and pictures of space stations, space shuttle and spectroscopes, to explain the concept</li> <li>Help students to discuss space technologies.</li> </ul>
		• Analyze the benefits generated by the technology of the space exploration.	Benefits generated by technologies of space exploration.		01	Students to explore and discuss the benefits generated by technologies of space exploration.
12 <b>G8-S-12</b>	Exploring Space	<ul> <li>Suggest the ways to solve the problems that have resulted from space exploration.</li> </ul>	<ul><li>Survival in space</li><li>Problems resulting from space exploration and their solution.</li></ul>	Page 149 - 162	01	Students will read the topic of problems resulting from space exploration and their solutions.     Discuss in class. Teacher to summarize.
		<ul> <li>Identify new technologies used on earth that have developed as a result of the development of space technology.</li> <li>Design a space craft and explain the key features of design to show its suitability as a space craft.</li> </ul>	<ul> <li>Technologies used for space explorations</li> <li>Technologies developed on the earth as a result of space exploration.</li> <li>Key Points</li> </ul>		02	<ul> <li>Use mini lecture to explain technologies used for space explorations.</li> <li>Give project Page -162 as assignment to the students</li> <li>Summarize with the help of given key points.</li> <li>Exercise A, B, C and D as homework</li> </ul>

أرۇو جماعت مېشتم

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعتم	در سی کتاب کا صفحہ نمبر	عنوان	نمبر شار
		متجبر			
<ul> <li>ا. دوران تدریس اشعار کی تشر یک کرتے ہوئے طلبہ سے حمد میں موجود خاص الفاظ کے معنی لغت میں تلاش کروائیں اور اہم نکات اخذ کروائی نظم کو اپنے الفاظ میں لکھوائیں۔</li> <li>۲. طلبہ سے مجہول کے جملوں کو معروف میں تبدیل کرنے کی زیادہ سے زیادہ مثق کروائیں۔</li> </ul>	٠٢	طلبہ:  • نظم کو اپنے الفاظ میں بیان یا تحریر کر سکیں۔  • معانی سے الفاظ کی طرف ذہنی سفر کر سکیں۔  • استحسان اور تنقید کی سطح کی تیاری کے لیے کسی تحریر (نظم اور نثر) کا خلاصہ لکھ سکیں، تشر ت کے کر سکیں اور اہم نکات بیان کر سکیں۔  بیان کر سکیں۔  • مجہول کو معروف جملوں میں بدل سکیں۔	۵ ৮۱	حمد (نظم)	G8- U-01
ا. طلبہ کو وضاحت کریں کہ ردیف سے مراد پیچے بیٹے ہوئے سوار یا بعد میں آنے والے کے ہیں ۔اگر نظم میں قافیہ کے بعد ائے تو نظم کی اور اگر نظم میں قافیہ کے بعد ائے تو نظم کی اور مثلًا لفظ کتاب کی ردیف: ب سے باغ-غ سے غبارہ- ہ سے ہار- رسے راستہ وغیرہ۔ ۲. نظم (نعت) سے کوئی سے پانچ الفاظ لے کر طلبہ سے اُن کی ردیف کی ترتیب کے حوالے سے چار، چار نئے الفاظ بنائیں۔ س. درسی کتاب میں دی گئی تجویز کردہ سرگر میاں طلبہ سے مکمل کروائیں۔		طلبہ:  • کسی بھی چیز کو مخصوص تلفظ، لہجے، آہنگ، ادائیگی او قاف،  آ واز کے زیر وہم کے ساتھ دمراسکیں۔  • معنی سے الفاظ کی طرف ذہنی سفر کرسکیں۔  • کسی تحریر کی تشریح کرسکیں اور اہم نکات بیان کرسکیں۔  • ردیف کے حوالے سے الفاظ کو ترتیب دے سکیں۔  • کسی تحریر (نظم) کا خلاصہ لکھ سکیں۔	967	نعت (نظم)	F G8- U-02
	11	کل پیریڈز برائے ستمبر			

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلّم	در سی نتاب کا صفحہ نمبر	عنوان	نمبر شار
		اكتوبر			
<ul> <li>المثل کا استعال کروائیں۔         المثل کا استعال کروائیں۔     </li> <li>سبق کے اہم نکات کی طرف طلبہ کی توجہ دلائیں اوراُن سے مرکزی خیال اپنے الفاظ میں لکھوائیں۔         خیال اپنے الفاظ میں لکھوائیں۔     </li> <li>طلبہ سے کہیں کہ گروپوں میں کسی دلچیپ موضوع پر تحریر لکھیں اور کمرہ جماعت میں پیش کریں۔</li> <li>ورسی کتاب میں دی گئی تجویز کردہ سر گرمیاں طلبہ سے مکمل کروائیں۔</li> <li>کروائیں۔</li> </ul>	* \( \Delta \)	طلبہ: • کسی بھی فطری ،اخلاقی یا قومی موضوع پر اپنے علم اور مشاہدے کی روشی میں کاغذ پر کھیں۔ • کم از کم پانچ منٹ کی تقریر کرسکیں۔ • مقرر یا مصنف کے نقطہ نظر کو اپنے تجزیے کے ساتھ پیش کرسکیں۔ • محاوارت اور ضرب الامثال کا استعال سکھ سکیں۔	۱۵ ۲۱۰	مُعلِّ مُعلِّ الْخِيْرِ اخلاق النَّالِيَّةِ إِمْ	₩ G8- U-03
<ul> <li>اس سبق کو کہانی کے اجزاء کو مد نظر رکھ کر پڑھائیں۔</li> <li>درانِ تدریس مصنف کی طرف سے استعال کی گئی تکنیکس         (رموزاو قاف ، اصنافِ نثر) اور عنوان کی تحت اپنے مقصدِ نثر کو ملحوظِ فاطر رکھ کر اپنے الفاظ میں بیان کریں۔</li> <li>طلبہ کو گروپوں میں دیے گئے چار پیراگراف کو ترتیب دے کر خلفا کے راشدین کی عنوان پر تین الفاظ کا مضمون لکھوائیں۔</li> <li>درسی کتاب میں دی گئی تجویز کردہ سر گرمیاں طلبہ سے مکمل کروائیں۔</li> <li>کروائیں۔</li> </ul>	• ۵	طلبہ:  عبارت کو اس کے عناصر، نتائج، علت و معلول کے تعلق اور رفتار مطالعہ (خاموش، بلند آواز) بنیادی خیال اور بیان کے حوالے کو ملحوظ رکھ کر پڑھ سکیں۔ مضمون میں مصنف کی تکنیک، مقصود اور طرز بیان بڑھ سکیں۔ عبارات کا استعال سکھ سکیں۔ تین سو(۲۰۰۰) سے زائد الفاظ کی ضخامت کا مضمون تیار کرکے پیش کر سکیں۔		حضرت عثمان رضی اللّه عنه	G8- U-04

معاون مدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلم	در سی کتاب کا صفحہ نمبر	عنوان	نمبر شار
ا. طلبہ سے سبق میں دیے گئے روز مرہ اور محاورات کا جملوں میں برمحل استعمال کروائیں۔ ۲. استاد کمپیوٹر ٹیچر کی راہ نمائی میں طلبہ سے کسی بھی درخواست کی کمپیوزنگ کروائیں۔ کمپیوزنگ کروائیں۔ نوٹ: حاصلات تعلم ا اور ۱۱ صفحہ نمبر 16 سبق 'حضرت عثمان غنی رضی اللّہ عنہ'' میں مکل کروا دیئے گئے ہیں۔ س. درسی کتاب میں دی گئی تبجویز کردہ سرگرمیاں طلبہ سے مکل کروائیں۔	+0	روز مر"ہ اور محاورات کے لحاظ سے غلط جُملوں کی تصحیح کر سکیں۔ کسی بھی غیر مطبوعہ تکنیکی (کمپیوٹر) متن کو لکھ سکیں۔		بهترین طالب علم	ద G8- U-05
ا. سبق میں موجود اہم نکات پر طلبہ سے بات چیت کریں اور جماعت کے سامنے درست لب و لیجے کے ساتھ پڑھنے کا کہیں ۔ ۲. کسی بھی طالب علم سے اُن پر تین منٹ تک تقریر کرنے کو کہیں۔ ۳. درسی کتاب میں دی گئ تجویز کردہ سر گرمیاں طلبہ سے مکل کروائیں۔	٠٦	طلبہ:  • تحسی بھی عام متن پر سوالات کے جواب تحریر کر سکیں۔  • معلومات کو بیان کرتے ہوئے اپنے ردغمل اور تجزیے کو شامل گفتگو کر سکیں۔  • تحسی بھی فطری یا قومی موضوع پر اپنے علم اور مشاہدے کی روشنی میں سامعین کے سامنے درست تلفظ اور لب و لہج میں کم از کم تین منٹ تقریر کر سکیں۔  میں کم از کم تین منٹ تقریر کر سکیں۔	m9 6 rA	معلومات پاکشان	Ч G8- U-06

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلّم	در سی کتاب کا صفحہ نمبر	عنوان	نمبر شار
<ul> <li>ا. دوران تدریس نظم کو تلفظ، لیجے، آہنگ اور نقطہ عروج کے تحت         زیروبم سے پڑھنے کی مشق کروائیں اور اہم نکات تختہ تحریر پر نوٹ         کریں۔</li> <li>۲. اہم نکات کو مد نظر رکھ کر تشر تک کا طریقہ سمجھایا جائے اور طلبہ سے         اس کی روشنی میں خلاصہ تحریر کرنے کو کہیں۔</li> <li>۳. درسی کتاب میں دی گئی تجویز کردہ سرگرمیاں طلبہ سے مکمل         کروائیں۔</li> </ul>	٠١٠	طلبہ:  • نظم کو مخصوص تلّفظ، لہجے، آ ہنگ، ادائیگی کے ساتھ او قاف، آ واز کے زیرو بم اور سطح کے ساتھ دم اسکیں۔  • استحمان اور تنقید کی سطح کی تیاری کے لئے کسی تحریری (نظم و نثر) کا خلاصہ لکھ سکیں۔ تشریح کرسکیں۔	~r t t ~+	یہ وطن تہہارا ہے (نظم)	∠ G8- U-07
	10	کل پیریڈز برائے اکتوبر			
		نومبر			
<ul> <li>متن کی تدریس کے دوران طلبہ سے سوالات کے جواب اخذ کروائیں۔</li> <li>طلبہ کو علامت اور لفظ کا فرق سمجھاتے ہوئے سابقہ اور لاحقہ سکھایا جائے مثال کے طور پر ''بے'' علامتِ سا بقہ ہے اور ''درد'' لفظ ہے دونوں کے ملنے سے نیا لفظ ''بے درد'' بن گیا۔ یاد رہے سابقہ میں علامت پہلے اور لفظ بعد میں ہوتا ہے۔ جب کہ لاحقہ میں لفظ پہلے اور علامتِ لاحقہ بعد میں ہوتی ہے جیسے: ''درد'' لفظ کے بعد علامتِ لاحقہ ''مند'' لگانے سے نیا لفظ ''دردمند'' بن گیا۔</li> <li>سے درسی کتاب میں دی گئ تجویز کردہ سرگرمیاں طلبہ سے مکل کروائیں۔</li> </ul>	•4	طلبہ:  • سُن کر معلومات کو ترتیب کے ساتھ اخد کر سکیں اور ان کے جواب کے لئے خود کو ذہنی طور پر تیار کر سکیں۔  • سابقہ اور لاحقہ کی مدد سے لفظ سازی کر سکیں۔  • محاورات اور ضرب الامثال کا استعال سکھ سکیں۔	۵۱ ۵ ۳۳	گر از گائیڈ	A G8- U-08

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلم	درسی کتاب کا صفحہ نمبر	عنوان	نمبر شار
<ol> <li>متن کی تدریس کے دوران سبق کے اہم نکات مضمون نولی کے حوالے سے سمجھا کر پڑھوائیں۔ جیسے : عنوان، ابتدائیہ ، نفسِ مضمون اور اختتامیہ وغیرہ۔</li> <li>درخواست کے عناصر سمجھاتے ہوئے درخواست تحریر کروا کر طلبہ سے پڑھوائیں۔</li> <li>درسی کتاب میں دی گئ تجویز کردہ سرگرمیاں طلبہ سے مکمل کروائیں۔</li> <li>کروائیں۔</li> </ol>	• ∠	طلبہ:  • عبارت کو اس کے عناصر، نتائج اور رفتار مطالعہ (خاموش اور بلند آواز) بنیادی خیال اور بیان کے حوالے کو ذہن میں دکھ کر پڑھ سکیں۔  • روز مرہ اور محاورات کے لحاظ سے غلط جملوں کی تضیح  کر سکیں۔  • درخواست وغیرہ کو سمجھ کر پڑھ سکیں۔	۵۸ ৮ ۵۲	ہمارا قومی کھیل ۔ہاکی	9 G8- U-09
ا. دوران تدریس طلبہ کو مترادف الفاظ کی روشنی میں تجنیس معنوی  سکھائیں۔ مترادف ہم معنی الفاظ ہوتے ہیں جو ایک لفظ کے لئے  مختلف الفاظ استعال ہوتے ہیں جیسے: دن کے لیے یوم، نہار، روز وغیرہ استعال ہوتے ہیں، جب کہ تجنیس میں ایک ہی لفظ کے کئی معنی ہوتے ہیں جیسے لفظ ''سونا'' نیند اور قیمتی دھات دونوں کے معنوں میں استعال ہوتا ہے۔ میں استعال ہوتا ہے۔ خبر، اداریہ، فیچر، رپورٹ، اشتہار اور خطوط بنام مدیر کا فرق سمجھا کر بڑھا ئیں اور طلبہ سے بھی بڑھوائیں۔ بڑھا ئیں اور طلبہ سے بھی بڑھوائیں۔ مکل کروائیں۔ کروائیں۔	<b>+</b> Y	طلبہ:  ہواب کے لئے خود کو زہنی طور پر تیار کرسکیں۔  ہواب کے لئے خود کو زہنی طور پر تیار کرسکیں۔  ہجنیس معنوی میں امتیاز کرسکیں۔  مباحثوں میں اپنا نقطہ نظر مخصوص انداز و آ داب کے ساتھ  پیش کرسکیں۔  اخبارات ، رسائل و جرائد میں خبروں، اداریوں، فیچروں،  رپورٹوں، اشتہارات اور خطوط بنام مدیر کو سمجھ کر پڑھ		يوم آزادي	G8- U-10

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تَعَلَّم	درسی کتاب کا صفحہ نمبر	عنوان	نمبر شار
ا. نظم میں موجود منظر پر طلبہ سے بات چیت کریں اور اس طرح منظر کشی کریں کہ طلبہ نظم سے لطف اندوزہو سیس کشی کریں کہ طلبہ نظم سے لطف اندوزہو سیس موجود قافیہ اور ردیف کو الگ الگ لکھنے کی مشق کروا سیس موجود قافیہ اور ردیف کو الگ الگ لکھنے کی مشق کروا سیس لیکن ردیف سے پہلے آتے ہیں قافیہ کسلاتے ہیں ۔ یعنی ان کا وزن اور آواز بھی ایک جیسی ہو ،  ہمی ایک جیسی ہو ،  ہمی ایک جیسی ہو ،  ہوری بنا کر تو نے بارونق جہاں بنایا  ان دونوں مصروں میں ''جہاں بنایا  دریف : مستقل کلمہ یا کلمات جواشعار کے آخر میں بار بار آتے ہیں ۔  ان جوز انہیں ہوتا  اثر اس کو زرا نہیں ہوتا  اشر میں ''نہیں ہوتا  اس شعر میں ''نہیں ہوتا'' ردیف ہے ۔  اس شعر میں ''نہیں ہوتا'' ردیف ہے ۔  اس شعر میں ''نہیں ہوتا'' ردیف ہے ۔  اس دری کتاب میں دی گئ تجویز کردہ سرگرمیاں طلبہ سے مکل	+4	طلبہ:  • شاعر کے طرزِ بیان کو سمجھ سکیں۔  • نظم کا مرکزی خیال سمجھ سکیں۔  • قافیہ اور ردیف کے حوالے سے الفاظ ترتیب دے سکیں۔  • نظم میں بیان کردہ مناظرِ فطرت سے لطف اندوز ہو سکیں۔  • اشعار کا مفہوم نثر میں لکھ سکیں۔	21 to 41/2	ایک آرزو (نظم)	(I) G8- U-11
	۲۵	کل پیریڈز برائے نومبر			

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلم	در سی نتاب کا صفحہ نمبر	عنوان	نمبر شار
ا. طلبہ سے کہیں کہ وہ اپنے پہندیدہ مشغلے ، کھیل اور پہند و ناپہند کے بارے میں ساتھیوں کو بتائیں اور کائی میں تحریر کریں۔ ۲. اخبار اور رسالے کے متن میں فرق روز مرہ زندگی کے متعلق کوئی عبارت پڑھ کر طلبہ کو سمجھائیں اور اس پر طلبہ میں مباحثہ کروائیں۔ ۳. درسی کتاب میں دی گئی تجویز کردہ سرگرمیاں طلبہ سے ممکل کروائیں۔ کروائیں۔	*۵	طلبہ:  • روز مرّہ زندگی کے تجربات اور مشاہدات کا زبانی اور تحریری اظہار کر سکیں۔  • کسی بھی عام متن پر سوالات کے جواب تحریر کر سکیں۔  • اخبارات اور رسائل کے متن کو روز مرّہ زندگی کے حوالے سے سمجھ سکیں۔ اور دوسروں کے ساتھ اس پر گفتگو کر سکیں۔  • معلومات کو بیان کرتے ہوئے اپنے ردعمل اور تجزیے کو شامل گفتگو کر سکیں۔  • معاورات کا استعمال سکھ سکیں۔	<u> </u>	بجلی کی دریافت	IF G8- U-12
<ul> <li>ا. کلاس میں طلبہ کے درمیان کسی اضلاقی موضوع پر تین منٹ کا تقریری مقابلہ کروائیں۔</li> <li>۲. تدریس کے دوران تجنیس معنوی والے الفاظ (ایک جیسے املا والے الفاظ) بتلائیں اور طلبہ سے جملوں میں استعال کروائے معنی کا فرق واضح کریں۔</li> <li>۳. درسی مختاب میں دی گئ تجویز کردہ سر گرمیاں طلبہ سے مکمل کروائیں۔</li> </ul>	• ۵	طلبہ: • کسی بھی متن پر سوالات کے جواب تحریر کر سکیں۔ • کسی بھی فطری، اخلاقی یا قومی موضوع پر اپنے علم اور مشاہدے کی روشنی میں سامعین کے سامنے درست تلفظ اور لب و لہجے میں کم از کم تین منٹ تک تقریر کر سکیں۔ • تجنیس معنوی میں امتیاز سکھ سکیں۔ • محاورات اور ضرب الامثال کا استعال سکھ سکیں۔	Ar t \( \times \)	تفر ت کی اہمیت	G8- U-13

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلّم	درسی کتاب کا صفحہ نمبر	عنوان	نمبر شار
ا. طلبہ کو مقولے اور کہاوت کا فرق سمجھائیں اور تحریر و تقریر میں ان کا بر محل استعال بھی سکھائیں۔ جیسے مقولہ: شیر کی ایک ون کی زندگی، گیدڑ کی سو سالہ زندگی سے بہتر ہے (ٹیپو سلطان) کہاوت: اتفاق میں برکت ہے۔ کہاوت: درسی کتاب میں دی گئی تجویز کردہ سر گرمیاں طلبہ سے مکمل کروائیں۔	+ 4	طلبہ: • مقولات اور کہادتوں کا تحریر میں بر محل استعال سکھ سکیں۔ • مقرر یا مصنف کے نقطہ نظر کو اپنے تجزیے، رائے کے ساتھ پیش کر سکیں۔ • روز مرہ اور محاورہ کے لحاظ سے غلط جملوں کی تضجیح کر سکیں۔		میز بان کی اعلیٰ ظرفی	ηγ G8- U-14
ا. طلبہ کو لغت کا درست استعال سکھائیں اور کچھ الفاظ کے معنی لغت میں تلاش کرنے کو کہیں۔  ۲. کسی ایک طالب علم سے کوئی بھی پیرا گراف درست تلفظ اور آ واز کے اُتار و چڑھاؤ کے ساتھ پڑھوائیں۔  ۳. طلبہ سے کسی بھی خبر یا ڈرامے کے حوالے سے بات چیت کریں اور اس میں موجود اہم نکات پر تبادلہ خیال کریں۔  ۷. درسی کتاب میں دی گئی تبحیز کردہ سر گرمیاں طلبہ سے مکل کروائیں۔	•۵	طلبہ: • معانی سے الفاظ کی طرف ذہنی سفر کر سکیں (تھیسارس کی مدد سے)۔ • کسی بھی چیز کو مخصوص تلفظ، لہجے، آ ہنگ، ادائیگی کے ساتھ کے ساتھ دم اور سطح کے ساتھ دم اسکیں۔ • زرائع ابلاغ میں خبروں، ڈراموں اور فیچروں میں اٹھائے گئے نکات کا تجزیہ کر سکیں۔	9∠ ७ 91	پاکستان کا نظام مواصلات	IΔ G8- U-15

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلات معم	درسی کتاب کا صفحہ نمبر	عنوان	نمبر شار
ا. دوران تدریس طلبہ سے روز مر ق زندگی سے متعلق کسی بھی اہم موضوع پر بات چیت کریں۔ ۲. طلبہ کو مختلف نوعت کی درخواستیں، فیصلے، حکم نامے اور اخباری رپورٹ دکھا کر ان میں فرق سمجھا ئیں اور پڑھوائیں۔ دکھا کر ان میں فرق سمجھا ئیں اور پڑھوائیں۔ ۲. درسی کتاب میں دی گئی تجویز کردہ سرگرمیاں طلبہ سے مکل کروائیں۔ ۲.	•۵	طلبہ: • روز مرّہ زندگی کے تج بات اور مشاہدات کا زبانی اور تحریری اظہار کر سکیں۔ • کسی بھی عام متن پر سوالات کے جوابات تحریر کر سکیں۔ • روز مرّہ اور محاورات کے لحاظ سے غلط جُملوں کی تصحیح • کر سکیں۔ • درخواستوں، فیصلوں، حکم ناموں، رپورٹوں وغیرہ کو سمجھ کر پڑھ سکیں۔		سائنسی ایجادات	G8- U-16
	10	کل پیریڈز برائے وسمبر			
		جنوري			
ا. دوران تدریس طلبہ کو تلخیص نگاری سمجھاکر کسی بھی متن کا ایک تہائی خلاصہ کھوائیں۔  نوٹ: طلبہ کو سابقہ اور لاحقہ سکھانے کے لئے سبق گرلز گائیڈ میں دیے گئے طریقے کے مطابق عمل کریں۔  طریقے کے مطابق عمل کریں۔  ا. درسی کتاب میں دی گئی تجویز کردہ سرگرمیاں طلبہ سے مکل کروائیں۔	I	طلبہ: • کسی بھی چیز کو مخصوص تلّفظ، کہجے، آ ہنگ، ادائیگی کے ساتھ او قاف، آ واز کے زیر و بم اور سطح کے ساتھ دمرائکیں۔ • سابقہ اور لاحقہ کی مدد سے لفظ سازی کر سکیں۔ • تحریر کا کم از کم ایک تہائی خلاصہ لکھ سکیں۔	1+7 61+6	اخلاقیات (نظم)	I∠ G8- U-17

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلّم	درسی کتاب کا صفحہ نمبر	عنوان	نمبر شار
<ol> <li>استاد کمرہ جماعت میں کوئی بھی کہانی نقطہ عروج تک سنائیں اور طلبہ سے آنے والے اہم واقعات کے بارے میں پوچیں، نیز کہانی کے کسی بھی مثبت یا منفی پہلو میں سے کسی ایک پر بات چیت کروائیں۔</li> <li>طلبہ سے جوڑوں میں'' گھر سے سکول تک کے سفر کی روداد '' تین پیرا گراف میں لکھنے کو کہیں، ان پیرا گراف کو ترتیب دے کر مضمون کی صورت میں لکھوائیں۔</li> <li>درسی کتاب میں دی گئی تجویز کردہ سرگرمی طلبہ سے مکل کروائیں۔</li> </ol>	•4	طلبہ: • روز مر ّہ زندگی کے تجربات اور مشاہدات کا زبانی اور تحریری اظہار کر سکیں۔ • کسی کہانی کے موڑ پر آنے والے دو یا زائد پہلوؤں میں کسی ایک کا انتخاب کر سکیں۔ • مجہول کو معروف مجملوں میں بدل سکیں۔ • تین سو سے زائد الفاظ کی ضخامت کا مضمون، انشائیہ، رپورتاژ یا رپورٹ وغیرہ تیار کرکے پیش کر سکیں۔		شهری دفاع۔ ایک تحریک	
<ul> <li>ا. کمرہ جماعت میں طلبہ کو مؤنث مذکر، واحد جمع، فعل اور املا کی کی غلطیاں سمجھا کر جوڑوں میں تحریر کو درست کرنے کو کہیں۔</li> <li>۲. درسی کتاب میں دی گئی تجویز کردہ سر گرمیاں طلبہ سے ممکل کروائیں۔</li> </ul>	٠٧	<ul> <li>کہانی، ڈرامے، مضمون وغیرہ میں مصنف کی تکنیک، مقصود اور طرزبیان کو سمجھ کر پڑھ سکیں۔</li> <li>کوئی مضمون لکھتے ہوئے مشاہدے، علم، معلومات، سوچ، فکر کو سادہ انداز میں مضمون کا حصّہ بناسکیں اور کم از کم تین پیرا گراف لکھ سکیں۔</li> <li>دوسروں کی لکھی ہوئی تحریروں کی اصلاح کرسکیں ( ادارت اور تدوین وغیرہ)</li> </ul>	14.6.114	پاکستانی نقافت کے رنگ	19 G8- U-19
ا. دورانِ تدریس نظم کا مرکزی خیال واضح کریں تاکہ طلبہ نظم کا خلاصہ اپنے الفاظ میں لکھ سکیں۔ نوٹ: ردیف کے حوالے سے الفاظ لکھوانے کے لیے سبق ''نعت'' میں دیے گئے طریقے کے مطابق عمل کریں۔ کئے طریقے کے مطابق عمل کریں۔ ۲. درسی کتاب میں دی گئی تبجویز کردہ سرگرمی طلبہ سے مکل کروائیں۔		طلبہ: • ردیف کے حوالے سے الفاظ کو ترتیب دے سکیں۔ • استحسان اور تنقید کی سطح کی تیاری کے لئے کسی تحریر (نظم و نثر) کا خلاصہ لکھ سکیں۔ • نثر پارے یا نظم کو اپنے الفاظ میں لکھ سکیں۔		ملی ترانه (نظم)	G8- U-20

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلّم	درسی کتاب کا صفحہ نمبر	عنوان	نمبر شار
<ol> <li>کوئی بھی پیراگراف منتخب کریں ، طلبہ اس پیراگراف کو غور سے پڑھ کر اسکی خوبیوں اور خا میوں پر بات چیت کریں۔</li> <li>طلبہ کو کسی بھی اہم واقعے کی اطلاع لکھنے اور اس کو کسی اخبار ، تھانے یاذمہ دار افسر تک پہنچانے کا طریقہ تختہ تحریر پر لکھ کرسکھا ئیں۔ یاذمہ دار میں کتاب میں دی گئی تجویز کردہ سرگرمی طلبہ سے مکل کروائیں۔ س. درسی کتاب میں دی گئی تجویز کردہ سرگرمی طلبہ سے مکل کروائیں۔</li> </ol>	٠۵	طلبہ:  مقرر یا مصنف کے نقطہ نظر کو اپنے تجزیے، رائے کے ساتھ پیش کر سکیں۔  درخواستوں، فیصلوں، حکم ناموں، رپورٹوں وغیرہ کو سمجھ کر بڑھ سکیں۔  منسی واقع کی اطلاع اخبار اور تھانے یا ذمہ دار افسر کو لکھ کر بھیج سکیں۔  سکول کے بارے میں اعلیٰ یا ضلعی انتظامیہ کو بعض ضرور توں کے حوالے سے درخواست لکھ سکیں۔ ضرور توں کے حوالے سے درخواست لکھ سکیں۔	127612	مُحسن پاکستان ڈاکٹر عبدالقدیر خان	F1 G8- U-21
	77	کل پیریڈز برائے جنوری			
		فروري			
<ol> <li>ا. طلبہ سے روز مر"ہ زندگی کے کسی بھی موضوع پر ایسے گفتگو کروائیں جس میں محاورات اور ضرب الامثال کا بر محل استعال ہو۔</li> <li>۲. درسی کتاب میں دی گئی تجویز کردہ سر گرمی طلبہ سے مکل کروائیں۔</li> </ol>	٠٢	طلبہ: • روز مر ّہ زندگی کے تجربات اور مشاہدات کا زبانی اور تحریری اظہار کر سکیں۔ • معلومات کو بیان کرتے ہوئے اپنے رد عمل اور تجزیے کو بھی شامل گفتگو کر سکیں۔ • محاورات اور ضرب الامثال کا استعال سکھ سکیں۔	Imq & Imm	علم كيميا كا تعارف	68- U-22

معاون ہدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلّم	درسی کتاب کا صفحہ نمبر	عنوان	نمبر شار	
<ol> <li>سبق کے لئے الفاظ کی املا کھوائیں تاکہ طلبہ تلفظ کی ادائیگی صحت کے ساتھ کرسکیں۔</li> <li>طلبہ کو ذیل نکات کے تحت نثریارے کی تشریح کرنا سکھائیں۔</li> <li>متن کا حوالہ۔ سیاق و سباق کا حوالہ ۔ فکری جائزہ۔ فنی جائزہ</li> <li>مرسی کتاب میں دی گئی تجویز کردہ سرگرمیاں طلبہ سے مکمل کروائیں۔</li> <li>کروائیں۔</li> </ol>	•۵	طلبہ:  • مُصِّنف کے نقطہ نظر کو اپنے تجزیے کے ساتھ بیان  کرسکیں۔  • تلفظ کی ادائیگی صحت کے ساتھ کرسکیں۔  • نثر پارے کو اپنے الفاظ میں لکھ سکیں۔		اُردو زبان	rr G8- U-23	
ا. متن کی تدریس میں نظم کولے اور آ ہنگ کے ساتھ پوری کلاس کو کورس میں پڑھایا جائے تا کہ طلبہ نظم سے لطف اندوز ہو سکیں۔ ۲. نظم کو نثر پارے میں تبدیل کرنے کے لئے مشکل الفاظ کے معنی سمجھا کر طلبہ سے اشعار کی تشریح کروائیں۔ ۲. درسی کتاب میں دی گئی تبجویز کردہ سرگرمی طلبہ سے مکمل کروائیں۔ ۳. درسی کتاب میں دی گئی تبجویز کردہ سرگرمی طلبہ سے مکمل کروائیں۔	٠٧	طلبہ: • نظم خوانی سے لطف اندوز ہو سکیں۔ • نظم کا خلاصہ تحریر کر سکیں۔ • نظم کا خلاصہ شر میں بیان کر سکیں۔	182 t 180	ملاوث نامه (نظم)	ドで G8- U-24	
<ol> <li>ا. طلبہ سے انفرادی طور پر سبق میں سے کسی ایک پیرا گراف کا انتخاب کریں اور اس پر چند سوالات تختہ تحریر پر لکھیں اور طلبہ کو پیرا گراف غور سے پڑھنے اور سوالات کے جواب لکھنے کو کہیں ۔</li> <li>۲. درسی کتاب میں دی گئی تجویز کردہ سر گرمیاں طلبہ سے مکل کروائیں۔</li> <li>کروائیں۔</li> </ol>	•4	طلبہ: • روز مر"ہ اور محاورہ کے لحاظ سے غلط جُملوں کی تصحیح کر سکیں۔ • کسی بھی عام متن پر سوالات کے جوابات تحریر کر سکیں۔	100 5 171	حیاتیات اور هاری زندگی	τ۵ G8- U-25	
	۲۳	کل پیریڈز برائے فروری				

معاون مدایات برائے اساتذہ	کل پیریڈز	حاصلاتِ تعلّم	در سی نتاب کا صفحه نمبر	عنوان	نمبر شار				
مارچ									
ا. متن کی تدریس کے دوران طلبہ سے سوالات کے جواب اخذ کروائیں۔ ۲. طلبہ کے درمیان کسی اخلاقی یا فطری موضوع پر پانچ منٹ کا تقریر ی مقابلہ کروائیں، طلبہ کو تقریر کاغذ پر لکھ کر دیں۔ نوٹ : طلبہ کو سابقہ اور لاحقہ سکھانے کے لئے سبق گرلز گائیڈ میں دیے گئے طریقے کے مطابق عمل کریں۔ طریقے کے مطابق عمل کریں۔ س. درسی کتاب میں دی گئی تجویز کردہ سرگرمی طلبہ سے مکمل کروائیں۔		طلبہ:  • سُن کر معلومات کو ترتیب کے ساتھ اخذ کر سکیں اور ان کے جواب کے لئے خود کو ذہنی طور پر تیار کر سکیں۔  • کسی بھی فطری، اخلاقی یا قومی موضوع پر اپنے علم اور مشاہدے کی روشنی میں کاغذ پر لکھی ہوئی کم از کم پانچ منٹ کی تقریر پڑھ سکیں۔  • محاورات اور ضرب الامثال کا استعال سکھ سکیں۔	177 6 107	موسموں کی کہانی	۲ኘ G8- U-26				
ا. نظم میں موجود مشکل الفاظ کے معنی سمجھا کر طلبہ سے نظم کے اشعار کی تشریح کروائیں اور اس کی روشنی میں اُن سے نظم کا خلاصہ تخریر کروائیں۔ ۲. طلبہ سے ردیف کے حوالے سے الفاظ سازی کروائیں۔ نوٹ: ردیف کے حوالے سے الفاظ لکھوانے کے لیے سبق ''نعت'' میں دیے گئے طریقے کے مطابق عمل کریں۔ گئے طریقے کے مطابق عمل کریں۔ س. درسی کتاب میں دی گئی شجویز کردہ سرگرمی طلبہ سے مکمل کروائیں۔		طلبہ:  استحمان اور تنقید کی سطح کی تیاری کے لیے کسی تحریر (نظم و نثر) کا خلاصہ لکھ سکیں۔  نثر یارے یا نظم کو اپنے الفاظ میں لکھ سکیں۔  ردیف کے حوالے سے الفاظ کو ترتیب دے سکیں۔	1996196	وطن کا گی <b>ت</b> (نظم)	۲∠ G8- U-27				
	١٣	کل پیریڈز برائے مارچ							
	10+	کل پیریڈز برائے تعلیمی سال ۲۰۲۰							
∠ا تا ا <sup>س</sup> الانه امتحان									





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