GRADE 6

ACADEMIC CALENDAR

Academic Year 2020-2021

COVID-19 ACCELERATED RESPONSE FOR EDUCATION, PUNJAB

Punjab Curriculum & Textbook Board, Lahore

Message from the Honourable Minister for School Education, Punjab

After a lag of months due to COVID-19, the schools are reopening and academic activities are resuming in a phased manner across Punjab. The school closure caused reduction in students contact time in the current academic year resulting in learning loss for children. This extraordinary situation called for a custom designed approach in order to ensure that the remaining academic time is utilized in the most efficient manner.

I am pleased to announce that School Education Department, Government of Punjab has risen up to meet the challenge caused by the pandemic and subsequent loss of valuable teaching and learning time in schools. I appreciate Punjab Curriculum and Textbook Board (PCTB) and Quaide-e-Azam Academy for Education Development (QAED) for outlining essential components of the curriculum that merited prioritized attention and, developing comprehensive support package for the teachers. I would also like to acknowledge the assistance by PESP-II for this initiative by SED.

I earnestly hope that this effort by the School Education Department, Government of the Punjab will significantly help mitigate the learning loss caused to our children as a result of the COVID -19 outbreak.

MURAD RAAS

Message from the Secretary for School Education Department, Punjab

COVID-19 has been a significant disruption for educational institutions, educators and learners across public and private schools. The educational activities are resuming and the learning loss due to shortened academic year is one of the substantive challenges to be overcome.

In this regard, I would like to commend the efforts of Punjab Curriculum and Textbook Board (PCTB) and Quaide-e-Azam Academy for Education Development (QAED) for their efforts to respond to this challenge. PCTB and QAED teams worked tirelessly to revisit the curriculum for identifying core learning objectives for students for the remaining academic year; and outlining a roadmap to mitigate the loss of learning time for the students. These are valuable contributions towards bringing the education system back on track across Punjab.

I would also like to thank PESP-II for extending necessary technical assistance in making it happen. I sincerely hope that the efforts of PCTB and QAED will help mitigate the learning loss caused by school closures, and help streamline the learning trajectory of all the children in public sector schools.

SARA ASLAM

Message from the Managing Director Punjab Curriculum & Textbook Board, Lahore

The COVID-19 pandemic caused a serious disruption of education activities. Being responsive to the challenge and to mitigate the educational loss PCTB has developed a prioritized list of academic topics for all grades up to secondary level. To further support teachers in the effective delivery of teaching and learning activities in the classroom, PCTB is pleased to provide the academic calendar for the remaining period for English and Mathematics for Grades 1 – 8 and Science for grades 4 - 8. It provides complete list of textual chapters, topics and page numbers along with curricular references of student leaning outcomes. This is further augmented by the provision of daily lesson plans and student worksheets.

I on behalf of my team would like to thank the honurable Minister and Secretary School Education Department, Government of the Punjab for their guidance and support. I would like to express my gratitude to the Director General, Quaid-e-Azam Academy for Education Development (QAED) for furnishing the required support for this initiative. I must also appreciate PESP II technical assistance team for their valuable support.

I sincerely hope that teachers will find this academic calendar useful and it will help them plan better and deliver more systematically.

DR. FAROOQ MANZOOR

Instructions for Teachers

We are pleased to share the academic calendar with you which is part of a comprehensive response to dealing with the learning loss of students caused due to COVID 19. The primary focus, while devising the response, has not only been on developing a calendar but also on developing lesson plans that address Student Learning Outcomes and allow teachers to help students discover concepts and provision of support materials in the form of worksheets. Both these documents will be shared with you on a rolling basis.

To ensure that the plan is executed in the best possible manner and that both teachers and learners get the most out of the plans, it is suggested that time to each of the following domains is allocated as per the percentage given below:

- Teaching 75%
- Assessment 15%
- Reinforcement 10%

We strongly urge you to follow the sequence given in the calendar and plan your lessons well in order to ensure that you are able to make up for the lost time of students.

Table of Contents

English ..... **07 - 20**
Mathematics ..... **21 - 29**
General Science ..... **30 - 35**

GRADE 6

ENGLISH

Month: September		Number of Periods: 08	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
Chapter 1 **Fair Dealing of Hazrat Muhammad** رَسُوْلُ اللهِ خَاتَمُ النَّبِيِّيْنَ صَلَّى اللّٰهُ عَلَيْهِ وَعَلٰى آلِهٖ وَاَصْحَابِهٖ وَسَلَّمَ	Pre-reading	• Use **pre-reading** strategies to • predict the content of a text from topic/picture, title/headings etc. by using prior knowledge, asking questions and **contextual clues**.	1
	While-reading	• Apply critical thinking to interact with text, and use intensive reading strategies (while-reading): ○ Scan to answer short questions. ○ Make simple inferences using context of the text and prior knowledge. ○ Distinguish between what is clearly stated and what is implied. ○ Deduce meaning of difficult words from context. ○ Use context to infer missing words. ○ Read silently with comprehension and extract main idea and supporting detail. • Comprehend/interpret text by applying **critical thinking**. Read and analyze a paragraph as a larger meaningful unit of expression to: ○ identify that the main idea in a paragraph is carried in a sentence, called a topic sentence. ○ recognize that other sentences in the paragraph support the topic sentence. • Analyze a text to: • recognize each paragraph as a separate meaningful unit of expression with its own topic sentence and supporting details.	1 - 3
	Post-reading	• Use critical thinking to respond to the text (post-reading): ○ Apply world knowledge and own opinion to the text read. • Relate what is read to their own feelings and experiences.	4
	Vocabulary	• Use dictionary to:	5

	Use of dictionary	○ locate **guide words**. ○ locate **entry word**. ○ choose appropriate word definition. ○ identify pronunciation of a word with the help of pronunciation key. ○ identify part of speech of a word through abbreviation used. ○ identify correct spellings. • Locate, provide, connect and use words similar and opposite in meaning.	
	Topic sentence supporting details	• Read and analyze a paragraph as a larger meaningful unit of expression to: ○ identify that the main idea in a paragraph is carried in a sentence, called a **topic sentence**. ○ recognize that other sentences in the paragraph support the **topic sentence**. • Analyze a text to: • recognize each paragraph as a separate meaningful unit of expression with its own **topic sentence** and **supporting details**.	1-3
Assessment			
Reinforcement			
Month: October		**Number of Periods: 27**	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
	Writing	• Write a guided paragraph using ideas gathered and organized through various strategies. • Write a simple unified paragraph on a given topic: ○ Write a clear **topic sentence** using specific words, vivid verbs, **modifiers**, etc. ○ Add adequate supporting detail (example, definition or evidence) to develop the main idea. • Use appropriate pronoun – antecedent relationship and **transitional devices** within a paragraph.	4
	Proof-reading	• Proofread and edit texts for errors of ○ word order, verb form, articles etc. ○ reference words, connectives. ○ adverbs and adjectives. • punctuations and spelling.	12

		• Demonstrate use of **common and proper nouns**. Differentiate between collective, countable and uncountable nouns.	6 - 7
		• Recognize and use apostrophe to show possessions and exclamation mark to show strong feelings.	7
		• Recognize the form and various functions; and illustrate use of Simple Present, Present Continuous, **Simple Past,** Past Continuous and Future Simple tenses.	8
		• Illustrate use of regular and irregular verbs in speech and writing.	9
		• Differentiate between long and short vowel sounds and recognize how vowel length can change the meaning. Identify and correctly pronounce **diphthongs** and **triphthongs** in words. Classify, use, and make declarative (affirmative and negative), interrogative, exclamatory and imperative sentences.	9
		• Apply rules of capitalization wherever applicable.	9
	Oral communication skills	• Use conventions and dynamics of group discussion and interaction to ○ offer and respond to greetings, compliments, invitations, introductions and farewells. • take turns.	11
Chapter 2 Surrounded by Trash	Pre-reading	• Use **pre-reading** strategies to • predict the content of a text from topic/picture, title/headings etc. by using prior knowledge, asking questions and **contextual clues**.	13
	While-reading	• Apply critical thinking to interact with text, and use intensive reading strategies (while-reading): ○ Scan to answer short questions. ○ Make simple inferences using context of the text and prior knowledge. ○ Deduce meaning of difficult words from context. ○ Read silently with comprehension and extract **main idea and supporting detail.**	14 – 15 15-16

		• Comprehend/interpret text by applying **critical thinking**. Read and analyze a paragraph as a larger meaningful unit of expression to: ○ identify that the **main idea** in a paragraph is carried in a sentence, called a topic sentence. ○ recognize that other sentences in the paragraph support the topic sentence. • Analyze paragraphs to identify sentences that support the main idea through • **cause and effect**	16
	Post-reading	• Use critical thinking to respond to the text (post-reading): ○ Apply world knowledge and own opinion to the text read. ○ Relate what is read to their own feelings and experiences. • Apply strategies to comprehend questions by marking key words, verbs and tenses in a variety of question types: ○ Literal/ textual/ factual • Respond orally or in writing.	16
	Vocabulary Use of dictionary Use of thesaurus	• Use dictionary to: ○ choose appropriate word definition. ○ identify **syllable** division, and **stress** pattern. • Locate, provide, connect and use words similar and opposite in meaning. • Locate synonyms and antonyms in children's thesaurus.	15 21
	Grammar	• Demonstrate use of common and proper nouns. Differentiate between collective, **countable and uncountable nouns.**	16 - 17
		• Recall and apply rules for use of **a and an** in speech and writing.	18
		• Use adverbs of manner, time, place, **frequency**, degree and reason.	18
		• Illustrate use of regular and irregular verbs in speech and writing.	19
		• Differentiate between long and short vowel sounds and recognize how vowel length can change the meaning. Identify and correctly pronounce **diphthongs** and **triphthongs** in words. Classify, use, and make declarative	19

		(affirmative and negative), interrogative, exclamatory and imperative sentences.	
		• Recognize the form and various functions; and illustrate use of **Simple Present**, Present Continuous, Simple Past, Past Continuous and Future Simple tenses.	19
		• Recognize and use comma: ○ for a series of items. • before a short quotation.	
	Oral communication skills	• Use conventions and dynamics of group discussion and interaction to ○ offer and respond to greetings, compliments, invitations, introductions and farewells. • take turns.	22
	Writing	• Analyze information in a flow chart or diagram to describe a process through guided writing tasks.	21
Assessment			
Reinforcement			
Month: November		**Number of Periods: 25**	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
Chapter 3 **Chitral Valley**	Pre-reading	• Use **pre-reading** strategies to • predict the content of a text from topic/picture, title/headings etc. by using prior knowledge, asking questions and **contextual clues**.	24
	While-reading	• Apply critical thinking to interact with text, and use intensive reading strategies (while-reading): ○ Scan to answer short questions. ○ Make simple inferences using context of the text and prior knowledge. ○ Use **context** to infer missing words. ○ Deduce meaning of difficult words from context. ○ Read silently with comprehension and extract **main idea and supporting detail.** • Comprehend/interpret text by applying **critical thinking**. Read and analyze a paragraph as a larger meaningful unit of expression to:	24 – 25 26 25

		○ identify that the **main idea** in a paragraph is carried in a sentence, called a topic sentence. ○ recognize that other sentences in the paragraph support the topic sentence. • Analyze and compare various informal letters to write short letters to people in immediate social and academic environment: Identify parts of a letter. Follow conventions of informal letter with respect to **layout, salutations** etc. • Recognize and demonstrate use of appropriate vocabulary, **style** and **tone** in informal letters. • Write the address on the envelope • clearly and in proper **format**.	
	Post-reading	• Use critical thinking to respond to the text (post-reading): ○ Apply world knowledge and own opinion to the text read. ○ Relate what is read to their own feelings and experiences. • Apply strategies to comprehend questions by marking key words, verbs and tenses in a variety of question types: ○ Literal/ textual/ factual • Respond orally or in writing.	26
	Vocabulary Use of dictionary	• Use dictionary to: ○ choose appropriate word definition. • Locate, provide, connect and use words similar and opposite in meaning.	26 21
	Writing	• Analyze and compare various informal letters to write short letters to people in immediate social and academic environment: ○ Identify parts of a letter. ○ Follow conventions of informal letter with respect to **layout, salutations** etc. ○ Recognize and demonstrate use of appropriate vocabulary, **style** and **tone** in informal letters. ○ Write the address on the envelope clearly and in proper **format**. • Demonstrate use of **subject-verb agreement** according to person and	29 – 33 34

		number. • Analyze information in a flow chart or diagram to describe a process through guided writing tasks.	
	Grammar	• Recall and apply rules for use of **a and an** in speech and writing.	27
		• Apply rules of capitalization wherever applicable. • Use full stop, question mark and exclamation mark wherever applicable.	28
		• Recognize and articulate English sounds given in the pronunciation key in the dictionary.	28
	Oral communication skills	• Use conventions and dynamics of group discussion and interaction to ○ take turns. ○ engage in conversation. • agree/ disagree politely.	34
Assessment			
Reinforcement			
Month: December		**Number of Periods: 26**	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
Chapter 4 **Night (Poem)**	Pre-reading	• Use **pre-reading** strategies to • predict the content of a text from topic/picture, title/headings etc. by using prior knowledge, asking questions and **contextual clues**.	37
	While-reading	• Apply critical thinking to interact with text, and use intensive reading strategies (while-reading): ○ Scan to answer short questions. • Read a poem and give orally or in writing: ○ Main idea ○ Summary (through **gapped summary** exercises) • Identify line and stanza.	37
	Post-Reading	• Use critical thinking to respond to the text (post-reading): ○ Apply world knowledge and own opinion to the text read. ○ Relate what is read to their own feelings and experiences.	37 - 38

		• Apply strategies to comprehend questions by marking key words, verbs and tenses in a variety of question types: ○ Literal/ textual/ factual • Respond orally or in writing. • Understand how a writer/ poet uses language to appeal to the senses through use of **figurative language** including **similes.**	
	Vocabulary Use of Dictionary	• Use dictionary to: ○ choose appropriate word definition. • Locate, provide, connect and use words similar and opposite in meaning. • Recognize and articulate English sounds given in the pronunciation key in the dictionary.	38 42
	Writing	• Read a poem and give orally or in writing: ○ Main idea ○ Summary (through **gapped summary** exercises) • Analyze written texts to use in their own writing, features of a simple descriptive composition about people, objects and places: **OBJECTS AND PLACES** ○ Physical description and characteristics of an object/ place, moving from general to specific. ○ Correct verb form. ○ Appropriate adjectives and adverbs for vivid effect. ○ Details in appropriate order. • Analyze information in a flow chart or diagram to describe a process through guided writing tasks. • Comprehend and use summary skills to ○ write summary/ précis of simple passages. • summarize poems.	39 43 43 43
	Grammar	• Demonstrate use of pronouns as subject and object. Recognize function of, and use **possessive** and reflexive pronouns.	39
		• Illustrate use of prepositions of	40

		position, **time,** movement and direction.	
		• Recognize the form and various functions; and illustrate use of Simple Present, **Present Continuous**, Simple Past, Past Continuous and Future Simple tenses.	41
	Oral communication skills	• Use conventions and dynamics of group discussion and interaction to ○ take turns. • engage in conversation.	44
Chapter 5 **Travelling Etiquettes**	Pre-reading	• Use **pre-reading** strategies to • predict the content of a text from topic/picture, title/headings etc. by using prior knowledge, asking questions and **contextual clues**.	48
	While-reading	• Apply critical thinking to interact with text, and use intensive reading strategies (while-reading): ○ Scan to answer short questions. ○ Make simple inferences using context of the text and prior knowledge. ○ Use **context** to infer missing words. ○ Deduce meaning of difficult words from context. ○ Read silently with comprehension and extract **main idea and supporting detail.** • Comprehend/interpret text by applying **critical thinking**. Read and analyze a paragraph as a larger meaningful unit of expression to: ○ identify that the **main idea** in a paragraph is carried in a sentence, called a topic sentence. ○ recognize that other sentences in the paragraph support the topic sentence. • Analyze and compare various informal letters to write short letters to people in immediate social and academic environment: Identify parts of a letter. Follow conventions of informal letter with respect to **layout, salutations** etc. • Recognize and demonstrate use of	48 – 51

		appropriate vocabulary, **style** and **tone** in informal letters. • Write the address on the envelope • clearly and in proper **format**.	
Assessment			
Reinforcement			
Month: January		**Number of Periods: 26**	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
	Post-reading	• Use critical thinking to respond to the text (post-reading): ○ Apply world knowledge and own opinion to the text read. ○ Relate what is read to their own feelings and experiences. • Apply strategies to comprehend questions by marking key words, verbs and tenses in a variety of question types: ○ Literal/ textual/ factual • Respond orally or in writing. Follow the direction and understand the position on a map or a picture, to give directions and explain position orally or in writing.	53 58 and 61
	Vocabulary use of dictionary	• Use dictionary to: ○ choose appropriate word definition. Locate, provide, connect and use words similar and opposite in meaning.	52
	Writing	• Analyze information in a flow chart or diagram to describe a process through guided writing tasks. Use summary skills to extract salient points and develop a **mind map** to summarize a text.	60
	Grammar	• Demonstrate use of pronouns as subject and object. Recognize function of, and use possessive and **reflexive pronouns**. Use few **indefinite pronouns**.	54
		Illustrate use of prepositions of position, time, movement and **direction**.	40
		Recognize the form and various functions; and illustrate use of Simple Present, **Present Continuous**, Simple Past, Past Continuous and Future Simple tenses.	41
	Oral communication skills	• Use conventions and dynamics of group discussion and interaction to:	61

		○ ask and restate directions. • Use various functions to give and follow directions /instructions.	
Chapter 7 Sports and Sportsmanship	Pre-reading	• Use **pre-reading** strategies to predict the content of a text from topic/picture, title/headings etc. by using prior knowledge, asking questions and **contextual clues**.	75
	While-reading	• Apply critical thinking to interact with text, and use intensive reading strategies (while-reading): ○ Scan to answer short questions. ○ Make simple inferences using context of the text and prior knowledge. ○ Use **context** to infer missing words. ○ Deduce meaning of difficult words from context. ○ Read silently with comprehension and extract **main idea and supporting detail.** • Comprehend/interpret text by applying **critical thinking**. Read and analyze a paragraph as a larger meaningful unit of expression to: ○ identify that the **main idea** in a paragraph is carried in a sentence, called a topic sentence. recognize that other sentences in the paragraph support the topic sentence.	75 – 77
	Post-reading	• Use critical thinking to respond to the text (post-reading): ○ Apply world knowledge and own opinion to the text read. ○ Relate what is read to their own feelings and experiences. • Apply strategies to comprehend questions by marking key words, verbs and tenses in a variety of question types: ○ Literal/ textual/ factual • Respond orally or in writing. Analyze questions to write effective and focused answers of required length by ○ marking **key words** ○ identifying verbs and tenses • recognizing **question types** such as Literal/ textual/ factual	79
	Vocabulary	• Use dictionary to:	78

	Use of dictionary	○ choose appropriate word definition. • Locate, provide, connect and use words similar and opposite in meaning. Recognize and articulate English sounds given in the pronunciation key in the dictionary.	82
	Writing	• Analyze information in a flow chart or diagram to describe a process through guided writing tasks. Use summary skills to extract salient points and develop a **mind map** to summarize a text.	78
	Grammar	Demonstrate use of common and proper nouns. Differentiate between **collective**, countable and uncountable nouns.	79
		Demonstrate use of pronoun-antecedent agreement recognizing their relationship.	80
	Oral communication skills	• Use conventions and dynamics of group discussion and interaction to ○ take turns. ○ engage in conversation.	83
Chapter 12 Drugs are Dangerous	Pre-reading	• Use **pre-reading** strategies to predict the content of a text from topic/picture, title/headings etc. by using prior knowledge, asking questions and **contextual clues**.	126
	While-reading	• Apply critical thinking to interact with text, and use intensive reading strategies (while-reading): ○ Scan to answer short questions. ○ Make simple inferences using context of the text and prior knowledge. ○ Use **context** to infer missing words. ○ Deduce meaning of difficult words from context. ○ Read silently with comprehension and extract **main idea and supporting detail.** • Comprehend/interpret text by applying **critical thinking**. Read and analyze a paragraph as a larger meaningful unit of expression to: ○ identify that the **main idea** in a paragraph is carried in a sentence, called a topic sentence. recognize that other sentences in the paragraph support the topic sentence.	126 – 127
Assessment			
Reinforcement			

Month: February		Number of Periods: 15	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
	Post-reading	• Use critical thinking to respond to the text (post-reading): ○ Apply world knowledge and own opinion to the text read. ○ Relate what is read to their own feelings and experiences. • Apply strategies to comprehend questions by marking key words, verbs and tenses in a variety of question types: ○ Literal/ textual/ factual • Respond orally or in writing. Analyze questions to write effective and focused answers of required length by ○ marking **key words** ○ identifying verbs and tenses • recognizing **question types** such as Literal/ textual/ factual	79
	Vocabulary use of dictionary use of thesaurus	• Use dictionary to: ○ choose appropriate word definition. • Locate, provide, connect and use words similar and opposite in meaning. • Locate synonyms and antonyms in children's thesaurus. Recognize and articulate English sounds given in the pronunciation key in the dictionary.	128
	Writing	• Analyze information in a flow chart or diagram to describe a process through guided writing tasks. • Use summary skills to extract salient points and develop a **mind map** to summarize a text. • Write a simple unified paragraph on a given topic: ○ Write a clear **topic sentence** using specific words, vivid	8

		verbs, **modifiers**, etc. ○ Add adequate supporting detail (example, definition or evidence) to develop the main idea. Use appropriate pronoun – antecedent relationship and **transitional devices** within a paragraph.	
	Grammar	Use first conditional sentences.	130
	Oral communication skills	• Use conventions and dynamics of group discussion and interaction to ○ take turns. engage in conversation.	133
Assessment			
Reinforcement			

GRADE 6

MATHEMATICS

Month: September		Number of Periods: 8	
Chapter/Unit # & Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
1 **Sets**	Set notations	Define set. Recognize notation of a set and its objects/elements.	4-5
	Set notations	Recognize notation of a set and its objects/elements.	5
	Descriptive form Tabular form	Describe tabular form of a set and demonstrate through examples.	7
	Types of set	Define • finite and infinite sets, • empty/void/null set, equal and equivalent sets.	8
	Types of sets	Define • equal and equivalent sets, • subset and superset of a set, proper and imprpoper subsets of a set and demonstrate through examples.	9-10
Assessment			
Reinforcement			
Month: October		**Number of Periods:27**	
Chapter/Unit # & Name	**Topic/Sub-topic**	**SLO**	**Textbook Page No**
2 **Whole Numbers**	Natural and whole numbers	Identify whole numbers and their notations	15
	Number line	Represent • a given list of whole numbers, • whole numbers < (or >) a given whole number, • whole numbers ≥ (or ≤) a given whole number, • whole numbers > but < a given whole number, • whole numbers ≥ but ≤ a given whole number,	16
	Laws of addition	Verify commutative and associative law (under addition) of whole numbers.	19-20
	Multiplication and	Multiply and divide two given whole	20-21

	Division of whole numbers	numbers.	
	Laws of Multiplication	• Verify commutative and associative law (under multiplication) of whole numbers.	21-22
	Multiplication over addition (subtraction) of whole numbers	• Verify distributive law of multiplication over addition. Verify distributive law of multiplication over subtraction (with positive difference)	22
3 **Factors and Multiples**	Types of natural number	• Define even numbers as the numbers, which are multiples of 2. • Define odd numbers as the numbers, which are not multiples of 2. Define prime numbers as numbers which have only two factors (i.e., 1 and itself).	27
	Tests of Divisibility	Test by inspection whether the numbers 2, 3, 4, 5, 6, 8, 9, 10, 11, 12 and 15 can divide a given number.	28-30
	Factorization	• Define prime factorization as the process of factorizing a number into its prime factors. • Recognize index notation. Factorize a given number and express its factors in the index notation.	31

	Highest Common Factor (HFC)	• Define HCF as the greatest number, which is a common factor of two or more numbers.
		• Find HCF of two or more than two numbers by:
		  • prime factorization,
		  • long division method.
			33

	Least Common Multiple (LCM)	• Define LCM as the smallest number, which is a common multiple of two or more numbers. Find LCM of two or more numbers by prime factorization	36
	Applications of HCF and LCM	Solve real life problems related to HCF and LCM	40

4
Integers
	Ordering of Integers	• Represent integers on number line.
		• Know that on the number line any number lying
		  • to the right of zero is positive,
		  • to the left of zero is negative,
		  • to the right of another number is greater,
		  • to the left of another number is
			47

		smaller. • Know that every positive integer is greater than a negative integer. Know that every negative integer is less than a positive integer.	

	Addition of Integers	• Use number line to display:
		  • sum of two or more given negative integers, sum of two given integers.
		• Add two integers (with like signs) in the following three steps:
		  • Take absolute values of given integers,
		  • Add the absolute values,
		  • Give the result the common sign.
		• Add two integers (with unlike signs) in the following three steps:
		  • Take absolute values of given integers,
		  • Subtract the smaller absolute value from the larger,
		Give the result the sign of the integer with the larger absolute value.
			49

	Subtraction of Integers	• Recognize subtraction as the inverse process of addition. Subtract one integer from the other by changing the sign of the integer being subtracted and adding according to the rules for addition of integers.	51
	Multiplication of Integers	Recognize that • the product of two integers of like signs is a positive integer, the product of two integers of unlike signs is a negative integer.	53

	Division of Integers	• Recognize that division is the inverse process of multiplication.
		• Recognize that on dividing one integer by another
		  • if both the integers have like signs the quotient is positive,
		  • if both the integers have unlike signs the quotient is negative.
		Know that division of an integer by '0' is not possible.
			54

Unit 5 Simplifications	BODMAS rule	• Know that the following four kinds of brackets • ___ vinculum,	59

		• ( ) parentheses or curved brackets or round brackets, • { } braces or curly brackets, • [ ] square brackets or box brackets, are used to group two or more numbers together with operations. • Know the order of preference as, ( ), { } and [ ], • to remove (simplify) them from an expression. • Recognize BODMAS rule to follow the order in which the operations, to simplify mathematical expressions, are performed. Simplify mathematical expressions involving fractions and decimals grouped with brackets using BODMAS rule.	
	Word problems BODMAS	• Solve real life problems involving fractions and decimals.	61
Assessment			
Reinforcement			
Month: November		**Number of Periods: 25**	
Chapter/Unit # & Name	**Topic/Sub-topic**	**SLO**	**Textbook Page No**
6 **Ratio and Proportions**	Relationship between ratio and fractions	• Define ratio as a relation which one quantity bears to another quantity of the same kind with regard to their magnitudes. • Know that of the two quantities forming a ratio, the first one is called antecedent and the second one consequent. • Know that a ratio has no units. • Calculate ratio of two numbers. • Reduce given ratio into lowest (equivalent) form. Describe the relationship between ratio and fraction.	67
	Proportion	Know that an equality of two ratios constitutes a proportion, e.g., a:b::c:d,where a, d are known as extremes and b, c are called the means.	68
		Find proportion (Direct & Inverse) solve	70-71

		real life problems involving direct and inverse proportion	
7 Financial Arithmetic	Percentage	• Recognize percentage as a fraction with denominator of 100. • Convert a percentage to a fraction by expressing it as a fraction with denominator 100 and then simplify. • Convert a fraction to a percentage by multiplying it with 100%. • Convert a percentage to a decimal by expressing it as a fraction with denominator 100 and then as a decimal. Convert a decimal to a percentage by expressing it as a fraction with denominator 100 then as a percentage.	75
	Profit, Loss & Discount	Define • profit, profit percentage Define: Selling price and cost price, Profit, loss and discount, Profit percentage and loss percentage Solve real life problems involving profit, loss and discount	80
		Solve real life problems involving profit, loss and discount.	
8 Introduction to Algebra	Variable and constants	• Explain the term algebra as an extension of arithmetic in which letters replace the numbers. • Know that • a sentence is a set of words making a complete grammatical structure and conveying full meaning. • sentences that are either true or false are known as statements. • a statement must be either true or false but not both. • a sentence that does not include enough information required to decide whether it is true or false is known as open statement (e.g., Δ + 2 = 9). • a number that makes an open statement true is said to satisfy the	88

		statement (e.g. Δ = 7 makes the statement Δ + 2 = 9 true). • use English alphabet x in the open statement Δ+2=9 to modify it to x+2=9. • Define variables as letters used to denote numbers in algebra. Know that any numeral, variable or combination of numerals and variables connected by one or more of the symbols ' + ' and '–' is known as an algebraic expression (e.g., x+2y).	
	Algebraic expression	• Know that x, 2y and 5 are called the terms of the expression x+2y+5. • Know that the symbol or number appearing as multiple of a variable used in algebraic term is called its coefficient (e.g. in 2y, 2 is the coefficient of y). • Know that the number, appearing in algebraic expression, independent of a variable is called a constant term (e.g. in x + 2y + 5, number 5 is a constant term). • Differentiate between like and unlike terms.	90
		• Separation and combination of algebraic terms • Differentiate between like and unlike terms. Know that like terms can be combined to give a single term	
	Row wise addition, column wise addition	• Know that • like terms can be combined to give a single term, • addition or subtraction cannot be performed with unlike terms. Add and subtract given algebraic expressions.	91
		Add given algebraic expressions.	93
		Subtract given algebraic expressions.	93
	Simplification Evaluation	Simplify algebraic expressions grouped with brackets.	94-96
Assessment			

Reinforcement			
Month: December		**Number of Periods: 26**	
Chapter/Unit # & Name	**Topic/Sub-topic**	**SLO**	**Textbook Page No**
9 Introduction to Algebra	Evaluation	Evaluate and simplify an algebraic expression when the values of variables involved are given.	96
Linear equations	Linear equations in one variable	• Define an algebraic equation. • Differentiate between equation and an expression. Define linear equation in one variable.	99
	Word problems	Solve simple linear equations involving two variables and if one variable is given	101
		Solve real life problems involving linear equations	
10 Geometry	Sum of two lines	Add measures of two or more-line segments.	105
	Difference of two lines	Subtract measure of a line segment from a longer one.	108
	Bisection of a line segment	• Draw a right bisector of a given line segment using compasses. • Draw a perpendicular to a given line from a point on it using compasses. Draw a perpendicular to a given line, from a point outside the line, using compasses.	111
	Construction of an angle	Use compasses to • construct an angle equal in measure of a given angle, • construct an angle twice in measure of a given angle, • bisect a given angle,	119
Assessment			
Reinforcement			
Month: January		**Number of Periods:26**	
Chapter/Unit # & Name	**Topic/Sub-topic**	**SLO**	**Textbook Page No**
10 Geometry	Construction of a triangle	Construct a triangle when three sides (SSS) are given.	119
		Construct a triangle when two sides and their included angle (SAS) are given.	120
		Construct a triangle when two angles and the included side (ASA) are given.	121
		Construction of a right-angled triangle	122

11 Perimeter and Area	Perimeter and area	• Find perimeter and area of a square and a rectangle. Solve real life problems related to perimeter and area of a square and rectangle.	126
		○ Find length of a rectangle if area is given	125
	Border area of a rectangle	○ Find area of path (inside or outside) of a rectangle or square.	127
	Area of a parallelogram	○ Find area of a parallelogram when altitude and base are given.	129
	Area of a trapezium	○ Define trapezium and find its area when altitude and measures of the parallel sides are given.	130
	Area of a triangle	○ Find area of a triangle when measures of the altitude and base are given.	133
12 Three Dimensional Solids	Volume and surface area of a cube	Find surface area and volume of cube	141-142
	Volume and surface are of a cuboid	Find surface area and volume of cuboid.	143
13 **Information Handling**	Data and its types	Distinguish between grouped and ungrouped data.	147
	Bar Graphs	Draw horizontal and vertical bar graphs.	149-150
	Pie graph	Read a pie graph.	153
Assessment			
Reinforcement			
Month: February		**Number of Periods: 15**	
Chapter/Unit # & Name	**Topic/Sub-topic**	**SLO**	**Textbook Page No**
Revision			
Assessment			
Reinforcement			

GRADE 6

GENERAL SCIENCE

Month: September		Number of Periods: 8	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
Chapter No. 1: Cellular organization of plants and animals	Cells	• Define a cell	4
	Animal and plant cell	• Draw, label and describe the basic structure of animal cell and a plant cell	6
	Difference between animal and plant cell	• Compare and contrast an animal cell with a plant cell	8
Assessment			
Reinforcement			
Month: October		**Number of Periods: 27**	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
Chapter No. 1: Cellular organization of plants and animals	Cells form tissues	• Distinguish between cells and tissues	9
	Tissues form organs	• Distinguish between tissues and organs	10
	Organs form organ system	• State the functions of major systems of human body	11-12
Chapter No. 2: Sense organs	The eye	• Explain the structure and function of eye	17-18
	The ear	• Explain the structure and function of ear	18
	The nose	• Explain the structure and function of nose	21
Chapter No. 3: Photosynthesis and Respiration in plants	Photosynthesis and its importance	• Define Photosynthesis & explain the importance of photosynthesis in plants	27
	Effects of different factors on photosynthesis	• Describe the effects of different factors on the process of photosynthesis	28
	Respiration in plants	• Explain the importance and process of respiration in plants	30
Chapter No. 4: Environment and Interactions	Environment	• Identify the components of environment	35
	Biotic Components	• Describe the relationship between biotic and abiotic components of environment	35
	Dependence of organisms upon one another	• Explain the different relationships between organisms	36

	Activity 4.1		
	Abiotic components Light Temperature Air Soil Water	• Explain how abiotic factors affect the ability of the plants to create their own food	37,38
Assessment			
Reinforcement			
Month: November		**Number of Periods: 25**	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
Chapter No. 5: Atoms, Molecules, Mixtures and Compounds	Atoms and molecules Activity 5.1	• Differentiate between an atom and molecule	45
	Elements	• Recognize the symbols of some common elements	46
	Classification of elements	• Classify elements into metals and non-metals	47
	Uses of some common elements Activity 5.2	• Relate the physical properties of elements to their uses	47
	Compounds and mixtures Activity 5.3 and 5.4	• Differentiate between elements, compounds and mixtures	49
	Uses of compounds and mixtures	• Explain use of some common mixtures in daily life	51
	Air as a mixture of gases	• Explain why air is considered as mixture of gases	52
Chapter No. 6: Air	Air and its importance	• Recognize the importance of air	59
	Composition of air	• Identify the composition of air	60
	Oxygen Activity 6.1	• Relate the properties and uses of gases in air with the composition of air	61
	Carbon dioxide Activity 6.2	• Relate the properties and uses of gases in air with the composition of air	62
	Rare gases Activity 6.3	• Relate the properties and uses of gases in air with the composition of air	63
Assessment			
Reinforcement			

Month: December		Number of Periods: 26	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
Chapter No. 7 Solutions and Suspensions	Solution and its components	Differentiate between solute, solvent and solution. • Identify solute and solvent in solution	67
	Water as universal solvent Activity 7.1	• Demonstrate the use of water as universal solvent	69
	Dilute and concentrated solution Activity 7.2	• Distinguish between aqueous, dilute and concentrated solutions	70
	Saturated and unsaturated solutions Activity 7.3	• Prepare saturated and unsaturated solutions	71
	Some uses of solutions	• Identify uses of solutions	73
	Suspensions and their uses	• Identify uses of suspensions in daily life	73
Chapter No. 8: Energy and its Forms	Energy	• Explain that energy provides the ability to do work and can exist in different forms	78
	Forms of energy Activity 8.1	• Identify different forms of energy with examples	78, 79
	Kinetic Energy Activity 8.2	• Differentiate between kinetic and potential energy	79, 80
	Renewable Energy Sources Hydroelectric Energy Wind Energy	• Explain the term renewable • Describe the advantages of using renewable energy sources • Describe the advantages of using renewable energy sources	84 84 85
	Biogas Solar Energy Tidal Energy	• Describe the advantages of using renewable energy sources • Describe the advantages of using renewable energy sources • Describe the advantages of using renewable energy sources	85
			85
Assessment			
Reinforcement			

Month: January		Number of Periods: 26	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
Chapter No. 9: Forces and Machines	Wheel and axle Activity 9.1	• Recognize wheel and axel and identify their uses	90, 91
	Pulleys Activity 9.2	• Describe pulleys and their kinds	91, 92
	Types of Pulleys Activity 9.3	• Identify the use of pulleys and their functions in daily life	92
	Gears Activity 9.4	• Describe the function of pulley systems and gear systems	93
	Uses of Gears	• Describe the function of pulley systems and gear systems	95
Chapter No. 10: Properties of Light	Transmission, Absorption and Reflection of light	• Differentiate between transmission, absorption, and reflection of light	100
	How does reflection occur?	• Demonstrate laws of reflection	101
	Laws of Reflection Activity 10.1	• Demonstrate laws of reflection	101
	Types of Reflecting Surfaces	• Demonstrate the difference b/w smooth, shiny and rough surfaces	102
	Image formation by plain mirror	• Describe image formation by plane mirror	102
	Image formation by convex mirror	• Investigate the image formation by convex and concave mirror	108
Assessment			
Reinforcement			
Month: February		**Number of Periods: 15**	
Chapter/Unit Name	**Topic/Sub-topic**	**SLOs**	**Textbook Page No**
Chapter No. 11: Investigating Sounds	How does sound produce? Activity 11.1	• Describe sound as a form of energy	113
	Sound as a form of energy Activity 11.2	• Describe sound as a form of energy	114
	How does sound travel? Activity 11.3	• Compare the speed in solids, liquids and gaseous mediums. Identify the variety of materials through which sound can travel	115
	How does human ear receive sound?	• Explain how does a human ear receive sound waves	118
Chapter No. 12: Space and Satellites	Satellites Natural Satellites	• Define the term satellite	122

	Comets Activity 12.1	• Compare the physical characteristics of comets, asteroids and meteors	123
	Meteors Activity 12.2	• Describe different kinds of meteors	125
	Artificial Satellites Launching of Satellites into space Activity 12.3	• Define the term artificial satellites and geostationary satellites	126 127
	Kinds of artificial satellites Sputnik-I Explorer-I Geostationary Satellites Landsat Satellites Communication Satellites Polar Satellites	• Describe the uses of various satellites in space	128, 129
Assessment			
Reinforcement			

Standard Operating Procedure

تعلیم و تدریس.... احتیاط کے ساتھ

بچوں کا درجہ حرارت چیک کرنے کا بندوبست کریں

تعلیم و تدریس.... احتیاط کے ساتھ

ماسک لگائے رکھیں

تعلیم و تدریس.... احتیاط کے ساتھ

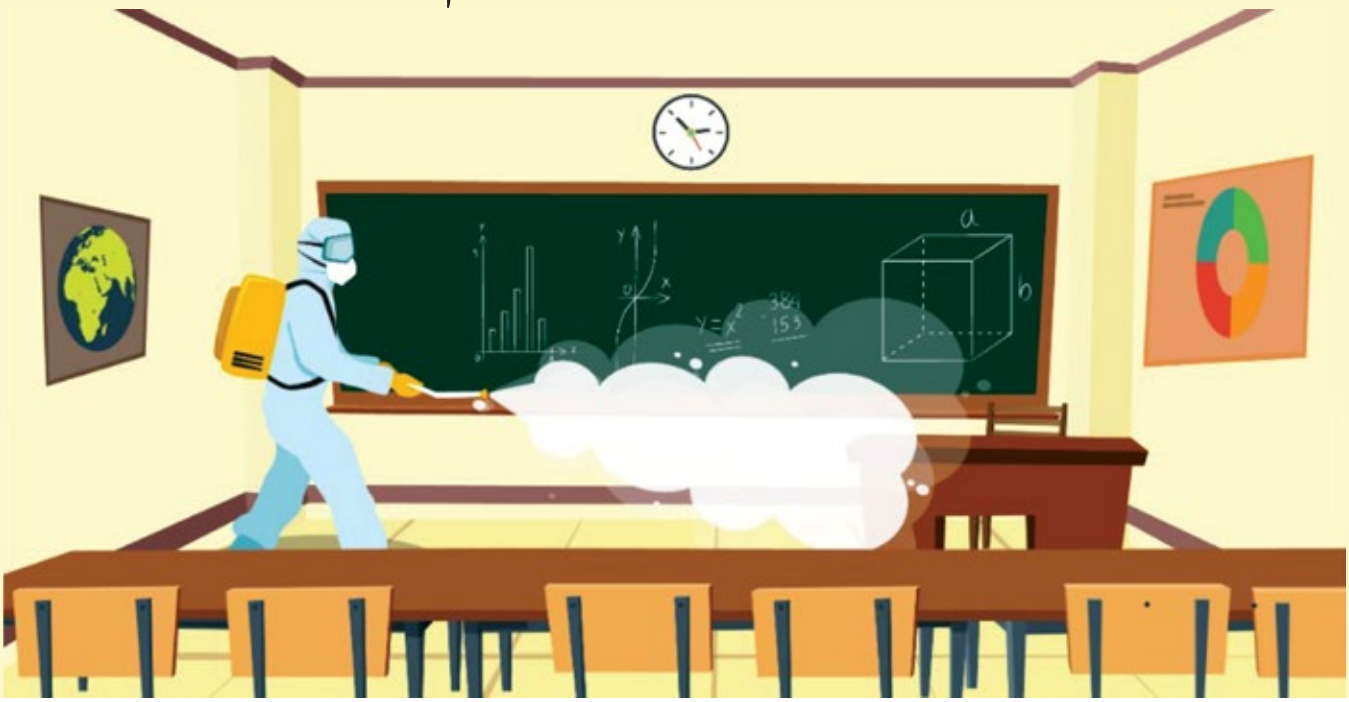
کھانستے اور
چھینکتے ہوئے
مُنھ اور ناک
کُہنی سے ڈھانپیں

تعلیم و تدریس.... احتیاط کے ساتھ

اشیا کے مشترکہ استعمال سے گریز کریں

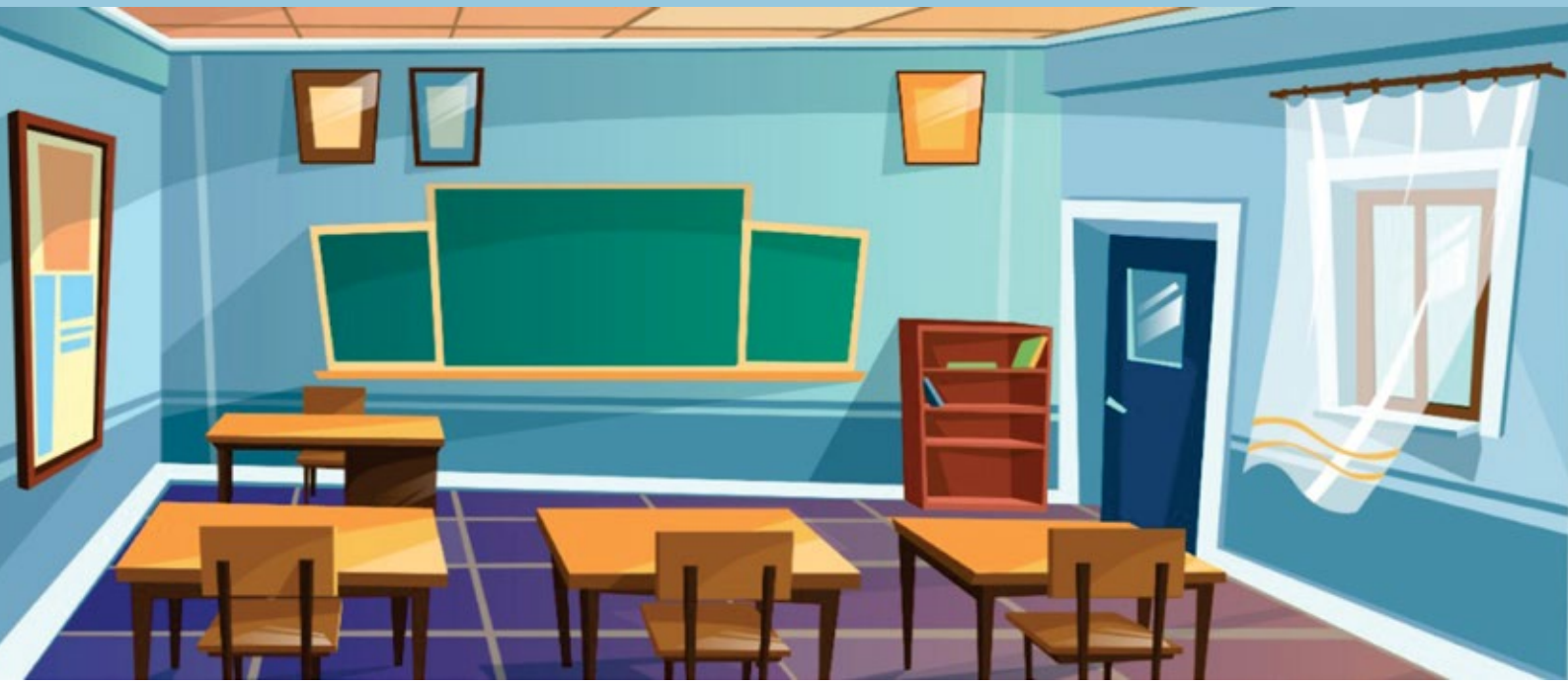
تعلیم و تدریس.... احتیاط کے ساتھ

کلاس رومز میں باقاعدگی سے جراثیم کُش سپرے کرائیں



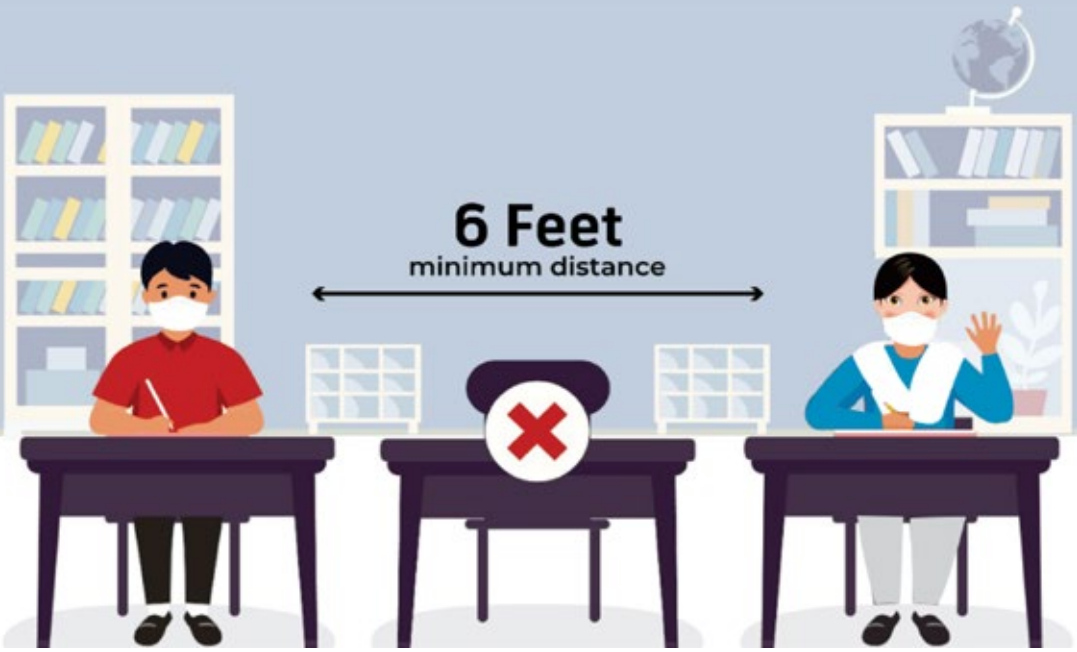
تعلیم و تدریس.... احتیاط کے ساتھ

کلاس رومز کو ہوادار بنائیں



تعلیم و تدریس.... احتیاط کے ساتھ

بچوں کے درمیان 6 فٹ کا سماجی فاصلہ برقرار رکھیں



تعلیم و تدریس.... احتیاط کے ساتھ

صابن سے ہاتھ دھونے یا سینی ٹائز کرنے کا بندوبست کریں

Punjab Curriculum & Textbook Board, Lahore