# redbricks | school

# Semester Overview 2020-2021

	October 2020 - February 2021
Name of Units	Skills
RCHANT OF NICE:  I, SCENE 2  I, SCENE 3  II, SCENE 2  II, SCENE 3  II, SCENE 4  II, SCENE 5  II, SCENE 6  II, SCENE 7  III, SCENE 8  III, SCENE 9  III, SCENE 1  ORT STORIES: el in Disguise ace in the Dark  EMS: evision er Blenheim Bangle Sellers	Reading and viewing:  Read fluently and demonstrate comprehension and interpretation of a range of grade-appropriate literary texts, featuring some complexity in theme, writing techniques and specialised language, including literature from modern and ancient cultures, short stories, novels, non-fiction and instructional material, reports and articles, advertising and promotional materials, authentic texts, poems and plays in a variety of forms.  Demonstrate comprehension of visual texts with specialized features and complex ideas (e.g., visual components of media such as magazines, newspapers, web sites, reference books, graphic novels, broadcast media, videos, advertising and promotional materials)  Select and use various strategies before reading and viewing to develop understanding of text,
	CHANT OF ICE:  I, SCENE 2  I, SCENE 3  II, SCENE 2  II, SCENE 3  II, SCENE 3  II, SCENE 5  II, SCENE 6  II, SCENE 6  II, SCENE 7  II, SCENE 8  II, SCENE 9  III, SCENE 1  ORT STORIES:  el in Disguise  ace in the Dark  MS:  evision  er Blenheim

prior knowledge accessing make and share connections, predictions, making asking questions, previewing texts Select and use various strategies during reading and viewing to construct, monitor, and confirm meaning, including predicting, making connections, asking and answering questions, making inferences and drawing conclusions, figuring out unknown reading selectively, words. determining the importance of ideas/events. summarizing and synthesizing, identifying facts, opinions and writers'/narrator's/characters' bias

Select and use various strategies after reading and viewing to confirm and extend meaning, including making inferences and drawing conclusions, reflecting and responding, using graphic organizers to record information and summarizing and synthesizing Respond to selections they read or view, by expressing opinions and making judgements supported by reasons, explanations, and evidence, explaining connections (text-to-self, text-to-text, and text-to-world), identifying personally meaningful selections, images and passages, and viewpoints, comparing various analysing descriptive texts to infer meaning, opinion and

attitude and synthesizing new ideas

Identify how structures and features of text work to develop meaning, including form, function, and genre of text (e.g., brochure about smoking to inform students; genre is persuasive) 'text features' (e.g., copyright, table of contents, headings, diagrams, index. glossary, sidebars, hyperlink, pull-quotes) literary elements (e.q., characterization, mood, setting, foreshadowing, viewpoint, conflict, protagonist, antagonist, theme, descriptions) non-fiction elements (e.g., topic sentence, development ideas with of supporting details, central idea, evidence or example, explanation) literary devices (e.g., imagery, onomatopoeia, simile, metaphor, symbolism, personification and other figures of speech) idiomatic expressions

## Writing:

Write a variety of clear personal, formal, instructional, persuasive, argumentative, imaginative and visual representations that demonstrate connections to experiences, ideas, opinions and visual clues.

Clearly develop ideas, mood and setting by using effective supporting details, explanations,

analysis, insights and sensory details

Demonstrate sentence fluency through strong, well-constructed sentences that demonstrate a variety of lengths and patterns, with an increasingly fluid style, rhythm and flow

Demonstrate effective word choice through the use of precise nouns, verbs, adjectives modifiers, purposeful use of figurative and sensory language with increasing sophistication Demonstrate the effective use of tone and voice (first person, person, omniscient second narrator etc.) to suit the purpose

Use a format and/or organisation that is meaningful, logical, effective and appropriate to the purpose and audience with an appropriate beginning (e.g. salutation in a letter, address, indentation etc.) middle (subject line, paragraphing etc.) and ending (closing etc.)

and audience

Demonstrate effective control over all aspects of coherence and cohesion (cohesive devices, referencing, substitution, sequence markers, establishing logical relationships, conjunctions, connectives etc.)

Select and use various strategies before writing and representing, including establishing a purpose, identifying an audience,

genre, and form and generating, selecting, developing, and organizing ideas from personal interest, prompts, texts, and/or research

Select and use various strategies during writing and representing to express and refine thoughts, including analysing models of literature accessing multiple sources of information consulting reference materials considering feedback applying from discussions revise ideas. to organization, voice, word choice, and sentence fluency revising and editing

Select and use various strategies after writing and representing to improve their work, including checking their work against established criteria revising to enhance writing traits (e.g., ideas, sentence fluency, word choice, voice, organization) editing for conventions (e.g., grammar and usage, capitalization, punctuation, spelling

Use writing and representing to critique, personal express responses and relevant opinions, and respond to experiences and texts Write short pieces of continuous prose in response to questions by developing explanations, analysing the relationships in ideas and information, making

generalizations, speculating about alternative viewpoints, providing supporting evidence and presenting personal opinions.

Use the features and conventions of language accurately to express writing meaning in representing, including complete simple, compound, and complex sentences subordinate and clauses independent correct subject-verb and pronoun agreement in sentences with compound subjects correct and effective use of punctuation conventional Canadian spelling for familiar and frequently words spelling unfamiliar words applying strategies phonic knowledge, use of common spelling patterns, dictionaries, legible thesaurus) writing appropriate to context and purpose

### Grammar and Vocabulary:

Identify and explain how syntactic and structural features convey meaning

Use tenses (simple, continuous, perfect and perfect continuous) accurately to convey time and sequence of events

Use pronouns, referencing and substitution accurately to indicate clear relationships within and between sentence

Identify and use a wide range of simple, compound and complex

		sentences with flexibility and accuracy to suit the purpose and format of the text Explore and use varied sentence structures to convey the same meaning Use punctuation and other structural clues to infer and convey meaning Select and use words (verbs, noun phrases, adjectives and adjective phrases, adverbs, modifiers) to convey precise meaning, nuances, intensity, mood, attitude, register, tone and opinion Identify and use synonyms and paraphrase effectively Identify and record how descriptive language is used in texts to convey meaning Use a wide range of vocabulary, including phrasal verbs and idiomatic expressions fluently and flexibly to convey precise meaning Demonstrate an awareness of style and collocation Demonstrate full control over
		Demonstrate full control over spelling and word formation
HINDI	Chapter 3: Neta ji ka chashma(Sahitya Sagar Gadya bhag)  Vah janm bhoomi meri	Reading and Comprehending  Dictionary skills  Listen critically to understand  Asking questions to clarify meaning
	(Sahitya Sagar Padya bhag)	Discussion on main points of the story Writing short notes

Chapter 4: Maha yagya understanding for Develop ka puruskar (Sahitya different words Sagar Gadya bhag) Paragraph writing Understanding poetry Swarg bana Sakte he Essay writing Understanding the gist of Poetry (Sahitya Sagar Padya Understanding characters bhag) Descriptive writing Picture writing Writing character sketch Understanding proverbs Story writing letter writing Unseen passage Sentence structure Synonyms **Antonyms** Noun and Pronoun Adjectives Proverbs and Idioms Tenses

MATHS	Chapter 2: Compound	Describe and apply the formula
	Interest	for finding simple interest and compound interest Describe an alternate procedure for finding simple interest and compound interest Recognize the importance of converting time from months to years before applying the formula for interest Differentiate between simple and compound interest
	Chapter 6 :	
	Exponents/Indices	Define base and exponent Recite and write numbers in exponential form Indicate if a number is written in exponential form, factor form or standard form Restate the rules for a base with an exponent of zero/one and other laws of exponents Convert numbers between exponential form, factor form and standard form Apply exponential laws to solve simple and complex problems Discover the need for logarithmic notation when writing a product of many factors
	Chapter 13: Circle	Understanding the terms and concepts of chord and applying them to solve simple problems
	Chapter 18: Volume and	
	Surface Area of Solids	State/apply the formulas to calculate volume and surface area

	of cube, cuboid and cylinder
	State the relation between
	different units of volume
	Apply the concepts of
	mensuration to solve real world
	problems
	Consolidating and generalizing the
Chapter 19:	notion of chance in events like
Trigonometrical Ratio	tossing coins, dice etc. Relating it
	to chance in life events
	Understanding the terms and
	concepts of arc and applying them
	to solve simple problems.
Chapter 20: Co-ordinate	Understand basic properties of
Geometry	trigonometric ratio.
,	Applying properties of
	trigonometric ratio
	Understand that a linear function
	can be represented in multiple
	ways (e.g., graph, table, equation)
	Explain the basics of co ordinate
	·
Chanton Q: Mid naint	system  Identify and and pains that calva
Chapter 9: Mid point	Identify ordered pairs that solve
and intercept theorem	a linear equation
40.5.1	Represent a linear equation on a
Chapter 10: Pythagoras	graph paper
theorem	Solve a pair of simultaneous
	equations graphically
	Mid-Point Theorem and its
Chapter 11: Rectilinear	converse, equal intercept
Figures	theorem (i) Proof and simple
	applications of midpoint theorem
	and its converse. (ii) Equal
	intercept theorem: proof and
	simple application.
	(d) Pythagoras Theorem
	Area based proof and simple
<u> </u>	<u> </u>

	Chapter 13: Circles	applications of Pythagoras Theorem and its converse.  Rectilinear Figures (a) Proof and use of theorems on parallelogram. Both pairs of opposite sides equal(without proof). Both pairs of opposite angles equal. One pair of opposite sides equal and parallel (without proof). Diagonals bisect each other and bisect the parallelogram. Rhombus as a special
		parallelogram whose diagonals meet at right angles. In a rectangle, diagonals are equal, in a square they are equal and meet at right angles.  Circle: Area and Circumference.  Direct application problems including Inner and Outer area.  Areas of sectors of circles other than quarter circle and semicircle are not included
PHYSICS	Chapter 6: Heat and Energy	Explain Heat as a form of energy Distinguish between temperature and heat Understand anomalous expansion of water and its consequences Describe thermal Expansion in solids and liquids Understanding the flow of energy as linear and linking it with laws of thermodynamics. Understanding different forms of energy

<b>Chapter 7:</b> Reflection of light	Differentiate renewable and non renewable resources of energy Understanding meaning and impact of global warming on life of earth
	Explain the laws of reflection Identify and explain examples of reflection in daily life Differentiate between real and virtual image Describe the uses of plane mirror Describe spherical mirrors and its types Explain different terms related to reflection Draw ray diagrams for the
Chapter 8: Propagation of sound waves	Draw ray diagrams for the construction of image for different locations of objects Differentiate between convex and concave mirror Apply the concepts of reflection in daily life
Chapter 9: Current Electricity	Apply the sign convention and direct formula to solve simple problems
<b>Chapter 10:</b> Magnetism	Define Sound and factors affecting it Experimentally prove that sound requires a medium to propagate Applying V= fv to solve simple numerical problems Classification of sound based on different frequencies
	Explain different sources of electric current Describe different ways to

		produce electric current.  Describe different effects of electricity  Draw circuit diagram using electrical symbols  Detection of current by galvanometer and ammeter  Understanding the concepts resistance and Ohm's law  Justifying the need and methods of efficient uses of energy  Differentiate between magnetic and non magnetic substances  Describe properties of a magnet Explain the working and uses of a magnetic compass  Experimentally draw magnetic lines of force and explain about them  Describe the Earth as a giant magnet  Locating the neutral points of a
		magnet
CHEMISTRY	Chapter 5: The periodic table  Chapter 6: Hydrogen	Understand the classification of elements Describe various periodic laws by various scientists Identify and describe the position of all the elements in the periodic table Understand their properties on the basis of position in periods and groups
		Describe the preparation of hydrogen from electrolysis of

	Chapter 7:	water
	Study of gas laws	Prepare hydrogen in the lab, using zinc and acid Describe properties and uses of hydrogen
		Correlate concepts of oxidation and reduction
		Understand the behaviour of gases under changes of temperature and pressure Explain and solve problems on Boyle's and Charles's laws Convert kelvin scale to celsius scale and vice versa
BIOLOGY	Unit 5: Human Anatomy and Physiology Chapter 10: Nutrition	Understand the need of nutrition Classify food items according to nutrients present in them Enlist the functions of different food components Match the nutrients with their sources Understand importance of balanced diet Create diet plan according to
	Chapter 11: Digestive System	specific needs of the person Identify deficiency diseases through their symptoms Suggest a diet plan for prevention of deficiency diseases Understand the need for digestive system
	Chapter 12: Skeleton- Movement and Locomotion	Enlist different organs and glands of digestive system Explains the structure of tooth with the help of diagram State functions of different

types of teeth Write dental formula for an adult human being functions Describe the of different parts of digestive system including enzymes Perform experiments on digestion Chapter 13: Skin Understand the need for a skeletal system Enlist constituents of a skeleton Chapter 14: The Classify bones on the basis of Respiratory System shape State the number of bones in each region og human body Differentiate between axial skeleton appendicular and skeleton Identify the type of joint in different parts of the body Differentiate between voluntary, involuntary and cardiac muscles Understand the movements in different parts of the body through lever mechanisms Describe different functions of skin Label a diagram of internal structure of skin Enlist the names and functions of different derivatives of skin Understand the need for a respiratory system Draw a well labelled diagram of human respiratory system Differentiate between aerobic

		and anaerobic respiration Appreciate the role of diaphragm and intercostal muscles in braething Explain the physiology of gaseous transport and tissue respiration Understand the effect of altitude on breathing Define different terms associated with respiratory volumes Perform experiments related to breathing and respiration
HISTORY	Medieval India  The Mughal Empire	Understand that the Medieval period witnessed an interaction between the North and South of India Identify the various sources to reconstruct the Medieval period Know about the major kingdoms-during the Medieval period Critically analyze the social and economical condition during the Medieval period
		Arrange in a chronological order the events that led to the establishment of the Mughal dynasty in India Compare and contrast rulers like Babur, Humayun and Sher Shah and their achievements Arrange in a chronological order the battles that were fought by Akbar Compare and contrast the administrative and military

The Beginning of the Modern Age in Europe achievements between Babur and Akbar Develop reasoning to understand the pros and cons of the central administration system introduced by Akbar Evaluate the Mansabdari system introduced by Akbar Organize the facts that led to the popularity of Akbar as the Mughal emperor Ability understand to the historical of construction differences and similarities among Jahangir, Shah Jahan and Aurangzeb critically Think about Nur Jahan's role in administrative affairs of the Mughal Empire Analyze the architectural achievements of Shah Jahan Compare and contrast the Rajput policy of Akbar and Aurangzeb Critically analyze the objectives of Aurangzeb's Deccan policy Understand the role of Marathas during the reign of Aurangzeb Critically analyze Shivaji's different systems such military system, revenue system, administration system Understand the long-term consequences of Aurangzeb's Deccan campaigns Analyze the role of Aurangzeb as a failure in being a ruler Understand significant features

of the Mughal Empire

		To explore the diversity of people's lives within the Mughal world Understand the reasons for the decline of the Mughal Empire
		Understand the meaning, causes and impact of the Renaissance. Understand the meaning, causes and impact of the Reformation Understand the meaning, causes and impact of the Industrial Revolution
Civics	Local Self Government	Appreciate that the local government has an important role to play both in the rural as well as urban areas  Describe the salient features of the 73rd and 74th amendments of the Constitution  Describe the organization and functions of the local bodies (Urban and Rural)  Identify the financial resources of local bodies; I explain the functions of local bodies  Evaluate the performance of Panchayati Raj institutions as instruments of democratic decentralization (grassroots democracy)

#### **GEOGRAPHY**

**Unit 2**: Structure of the Earth

Chapter 8: Earthquakes Chapter 9: Weathering Chapter 10: Denudation

**Unit 3:** Hydrosphere Chapter 11: Hydrosphere

Unit 4: Atmosphere

Chapter 12: Composition and Structure

Chapter 13:

Insolation Chapter 14:

Atmospheric pressure

and winds Chapter 15: Humidity

Unit 5: Pollution
Chapter 16: Pollution
Chapter 17: Sources of

Pollution

Chapter 18 Effects of Pollution

Chapter 19:Preventive Measures of Pollution

Unit 6: Natural Regions of the World Chapter 20: Natural regions of the World

Explain the reasons for earthquakes

Understand where in the world earthquakes are most likely to occur

Describe the potential consequences of an earthquake Differentiate between earthquake intensity and earthquake magnitude

Recognize that weathering breaks down minerals and rocks and occurs as a result of both mechanical and chemical processes

Explain the processes that cause mechanical weathering, which is responsible for rock disintegration

Explain the reactions that cause chemical weathering, which is responsible for rock decomposition

Describe how soils form and what factors control the development of soil profiles

Discuss the role that plate tectonic processes play in weathering, soil development, and global temperature variation

Identify different land features of Hydrosphere

Analyse the properties and patterns of tides and ocean currents

Define weather and how it is different from climate Specify the composition of

		the atmosphere near Earth's surface Factors affecting temperature Identify and characterize the four layers of the atmosphere Describe the major components of clean, dry air Describe the extent and structure of the atmosphere Explain what causes temperature to vary from place to place Explain how the atmosphere is heated and what causes seasons Discuss humidity, basic cloud-forming processes, and the mechanisms that initiate the vertical movement of air Describe fog, how it forms and how precipitation is produced in a cloud Identify the criteria used for cloud classification and the conditions necessary for condensation Discuss global warming and ozone depletion Mapping different regions of the world as per the climatic conditions.
ART	Paper 1: Still Life Drawing & coloring natural objects, material based objects, backgrounds and foregrounds Paper 4: Applied Art book cover	Graphical gradation knowledge of Pencil & Paint mediums Composition Perspective format study Space and formation Visualization

	notice card making patterned paper	Association of ideas Creative and critical imagination Illustration
COMPUTER APPLICATIONS	Chapter 1: Introduction to Object Oriented Programming Concepts (i) Principles of Object Oriented Programming,  Chapter 2: Elementary concept of Objects and Classes	Difference between Procedure Oriented and Object oriented. All the four principles of Object Oriented Programming should be defined and explained using real life examples (Data abstraction, Inheritance, Polymorphism, Encapsulation.
	Chapter 6 :	Object Oriented programming, Features of OOP, Basic Elements of OOP (Principles of OOP), an overview of Objects, Classes, Data Abstraction, Encapsulation,Inheritance,
	Mathematical Library methods	Polymorphism Object types Class as Abstract Data Type, polymorphism and data hiding in detail
	Chapter 7: Java Conditional and Selection	
	Statements	Introduction to package java.lang [ default ], methods of Math class.
		pow(x,y), sqrt(x), cbrt(x), ceil(x), floor(x), round (x), abs(a), max(a, b), min(a,b), random().
	Chapter 8 : Java Iteration (Looping) Statements	Java expressions - using all the operators and methods of Math class.
		Application of if, if else, if else if ladder, switch-case, default,

break.

if, if else, if else if, Nested if, switch case, break statement, fall through condition in switch case, Menu driven programs, System.exit(0) - to terminate the program.

Definition, Types of looping statements, entry controlled loops [ for, while], variations in looping statements, and Jump statements.

Syntax of entry controlled loops, break and continue, simple programs illustrating for & while loops, inter conversionn between for - while, finite and infinite, delay, multiple counter variables (initializations and updations). Demonstrate break and continue statements with the help of loops.

Loops are fundamental to computation and their need should be shown by examples.