



The  
Millennium  
School

# SYLLABUS

CLASS-8

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### S K I L L S

Ch.No.	Topic	Listening <ul style="list-style-type: none"> <li>↳ Visualisation</li> <li>↳ Assimilation</li> <li>↳ Critical thinking</li> </ul>	Speaking <ul style="list-style-type: none"> <li>↳ Articulation</li> <li>↳ Extempore</li> <li>↳ Interactive communication</li> </ul>	Reading <ul style="list-style-type: none"> <li>↳ Comprehension</li> <li>↳ Interpretation</li> <li>↳ Analysis</li> </ul>	Writing <ul style="list-style-type: none"> <li>↳ Creative writing</li> <li>↳ Academic writing</li> <li>↳ Documentation</li> </ul>	Explorer's Quest
1.	<b>Safety with Articles</b> <ul style="list-style-type: none"> <li>• Indefinite Article</li> <li>• Definite Article</li> <li>• Zero Article</li> </ul>	<ul style="list-style-type: none"> <li>• Express with examples something that she/he has heard</li> <li>• Carefully visualise the errors while listening and logically correct them</li> <li>• Able to retrieve and locate the articles</li> </ul>	<ul style="list-style-type: none"> <li>• Plan a game</li> <li>• Rough discussion of the game before playing it.</li> <li>• Correct usage of articles</li> <li>• Converse with correct positioning of articles and speech clarity</li> </ul>	<ul style="list-style-type: none"> <li>• Study and explore to locate details on the subject</li> <li>• Gain a clear conception on the topic by reading and solving 'Add to Favourites'</li> <li>• Read about the character of interest and imagine oneself as his persona</li> </ul>	<ul style="list-style-type: none"> <li>• Correct, edit, and proof read</li> <li>• Present the work in a legible form in a given time</li> </ul>	<p>The learner explores some marketing products and selects a few of them for advertisement. The learner prepares the advertising punch lines for the selected products and markets it via different mediums.</p>
2.	<b>Rocking with Prepositions</b> <ul style="list-style-type: none"> <li>• Prepositions : Usage</li> <li>• Prepositions or Adverbs</li> </ul>	<ul style="list-style-type: none"> <li>• Recall the prepositions</li> <li>• Brainstorm</li> <li>• Listen to the</li> </ul>	<ul style="list-style-type: none"> <li>• Retrieve the prepositions</li> <li>• Recognise its relation with</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and appreciate the types and usage of prepositions</li> <li>• Clarify views by</li> </ul>	<ul style="list-style-type: none"> <li>• Organise details for new creations</li> <li>• Write in accordance with the question put</li> </ul>	<p>The learner goes through the process of making a pinhole camera. She/He as an Instructional</p>

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3.	Participial Prepositions	discussion of her/his companions • Locate and rectify the errors • Think critically and possess an eye for detail	another element in clause	reading and solving 'Add to Favourites' • Read and appreciate the text thoroughly	up by the peer • Submit the work in a neat and comprehensible order	Designer creates instructions on 'How to make a pinhole camera'.
	<b>Bonding with Conjunctions</b> • Classes of Conjunctions • Types of Coordinating and Subordinating Conjunctions • Uses of Some Conjunctions	• Listen attentively to conjunctions read out in class • Locate the errors while listening and rectify them orally while class discussion	• Focus on different types of conjunctions while discussions	• Brainstorm • Read 'Are we compatible' and act in accordance to it. • Read and answer the textual based questions	• Think critically • Passage rewriting • Creative writing on 'Future Mystery, Reading Specialists 'Responsibility' using correct conjunctions • Coordinate with peers	The learner writes down and presents a two minutes 'ON AIR' presentation on the topic which interests her/him.
4.	<b>Puppeteering the Tenses</b> • Present Perfect Continuous Tense	• Listen to the sentences read out in the class	• Focus on grammatically correct sentences	• Read and answer the questions based on the text	• Organise ideas • Script writing • Write down the	The learner dramatises a real event to make

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5.	Past Perfect Continuous Tense Future Perfect Continuous Tense	• Visualise the perfect continuous tenses • Assimilate the primary three tenses and rules of tenses	while team discussion • Construct and speak out sentences as instructed • Correct dialogue speaking	• Comprehend and appreciate the 'Investigative Journalist' and 'Docudrama Writer' • Read the text and identify the perfect continuous tense	textual answers and act according to instructions • Coordinate with peers • Manage time effectively	docudrama film that is both, educating and entertaining.
	<b>Adventure with Verbs</b> • Action Verbs • Linking Verbs • Auxiliary Verbs	• Listen attentively • Answer on the basis of listening	• Speak clearly, grammatically correct, fluently and confidently • Follow the instructions and speak them out correctly	• Read and comprehend the chapter for a clear conception • Study 'Novel Writer' and 'Acquisitions Editor' for clarity on the topic • Answer the textual question after reading	• Correct, edit, and proof read • Present the work in a clear form in a given time	The learner creates a fictitious or a non-fictitious novel.

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6.	<b>Peace with Subject-Verb Agreement</b> • Identification of Subject • Agreement in Number • Agreement in Person	• Listen carefully and visualise the errors • Listen attentively to your peers in 'Spin the bottle'	• Speak clearly, fluently and confidently • Follow the rules while speaking	• Go meticulously through the poem • Read and research to find the details • Gain more clarity on the rules of Subject-Verb Agreement • Read and solve the textual objectives • Song reading and then answering the questions based on it.	• Correct, edit, and proof read • Dialogue writing	The learner prepares an annual film award ceremony and excels as an MC.
7.	<b>Celebrating with subordinate clauses</b> • Noun Clause: Functions • Adjective Clause: Usage	• Visualise and locate the subordinate clauses • Listen for errors and rectify	• Arrange her/his thoughts on the given topic • Speak fluently with accuracy and	• Appreciate the usage of subordinate clauses • Read and work out the textual questions	• Slogan writing • Correct the incorrect • Poster presentation	The learner creates a product of her/his own or chooses a market product. She/He then prepares a PowerPoint

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	• Adverb Clause: Types		correct grammar • Share and listen to the ideas of peers	• Edit and proof read • Understand the role of a 'Spokesperson' and 'Entrepreneur'		Presentation to launch the product
8.	<b>Add flavour with Idiomatic Expressions</b> • Phrasal Verbs • Verb/Adjective + Noun Expressions • Idioms	• Visualise the idioms • Think critically and listen for details • Listen to peers while playing different games	• Speak spontaneously • Share ideas with peers accompanied by apt expressions	• Read and explore the fun of using idioms • Differentiate between Phrasal verbs, Verb/ Adjective +Noun and idioms • Appreciate the usage of idioms • Read the 'Scenarist' and 'Humour Columnist'	• Idiomatic dialogue writing • Composition writing	The learner voices her/his opinions and thoughts as a Humour Columnist, by apt usage of idiomatic expressions in newspapers.

Ch.No.	Topic	Listening - Visualisation - Assimilation - Critical thinking	Speaking - Articulation - Extempore - Interactive communication	Reading - Comprehension - Interpretation - Analysis	Writing - Creative writing - Academic writing - Documentation	Explorer's Quest
9.	<b>Dancing with Punctuations</b> • Capital Letters • Comma • Hyphens • Em dash • En dash	<ul style="list-style-type: none"> <li>Visualise the punctuations</li> <li>Listen to the errors and rectify them</li> <li>Differentiate between two differently punctuated sentences</li> </ul>	<ul style="list-style-type: none"> <li>Speak correctly punctuated sentences</li> </ul>	<ul style="list-style-type: none"> <li>Recognise and identify the punctuations</li> <li>Edit and proof read the text</li> <li>Read and understand 'Lexicologists' and 'Magazine Editor'</li> </ul>	<ul style="list-style-type: none"> <li>Edit and proof reading</li> <li>Dictionary writing</li> </ul>	The learner prepares and presents a skit titled 'Comedy of errors' stressing on the correct usage of pronunciations.
10.	<b>Beats of Pronunciation</b> • Sentence Stress • Word Stress	<ul style="list-style-type: none"> <li>Listen to the beats and music around you</li> <li>Attentively try to capture the words and syllables</li> <li>Recognise the difference between different stress patterns</li> </ul>	<ul style="list-style-type: none"> <li>Intonation and phonetics to be followed while speaking</li> <li>Stress on correct syllable</li> <li>Recognise the change in stress patterns</li> <li>Sing a song with correct stress and pronunciation</li> </ul>	<ul style="list-style-type: none"> <li>Reckon the usage of stress in pronunciation</li> <li>Learn and differentiate between the different stress patterns</li> <li>Read 'News Anchor' and 'Singer'</li> <li>Read and solve the textual questions</li> </ul>	<ul style="list-style-type: none"> <li>Write with correct stress patterns</li> <li>Present the work in a presentable manner in the given time</li> </ul>	The learner presents a Live News programme. She/He interviews famous personalities related to the news and gives recent updates.

# English

## Literature

# Class 8

Ch.No.	Literature Component	Skills	Learning Outcome
1.	<b>Prose</b> <i>The Little Girl</i> by Katherine Mansfield (Short Story)	<ul style="list-style-type: none"> <li>Cognitive ability</li> <li>Judgemental ability</li> <li>Cultural sensitivity</li> <li>Character analysis</li> <li>Creative thinking</li> <li>Analytical ability</li> </ul>	<ul style="list-style-type: none"> <li>Comprehend and acquire knowledge about characters and setting from the story</li> <li>Know about the author by writing a biography</li> <li>Gain better understanding of the story through peer and group work</li> <li>Understand the writer's perspective</li> <li>Present your own perspective through a discussion</li> <li>Perceive the cultural setting of the era through the story</li> <li>Gain better understanding of the story through group work</li> <li>Analyse and interpret the traits of the characters in the story</li> <li>Demonstrate an understanding of the plot and the major characters in the story</li> <li>Write about the narrative aspect of the story</li> <li>Write an abstract for the story</li> <li>Comprehend and answer questions based on the story</li> </ul>
2.	<b>Poetry</b> <i>The Divine Image</i> by William Blake (Poem)	<ul style="list-style-type: none"> <li>Emotional sensitivity</li> <li>Expression and intonation</li> </ul>	<ul style="list-style-type: none"> <li>Decipher and comprehend the emotion behind the poem</li> <li>Relate to and identify the poetic voice and feelings</li> <li>Present their own perspective through a graphic organiser</li> <li>Know about the poet and his literary works</li> <li>Use appropriate body language while reciting the poem</li> <li>Modulate the pitch and volume of the voice</li> </ul>

Ch.No.	Literature Component	Skills	Learning Outcome
3.	Drama <i>Refund</i> by Frigyes Karinthy (Play)	<ul style="list-style-type: none"> <li>Theatrical aptitude</li> <li>Rhythmic intelligence</li> <li>Critical appreciation</li> <li>Analytical ability</li> </ul>	<ul style="list-style-type: none"> <li>Enact skits, taking care of the pitch, voice modulation, diction and sound effects</li> <li>Appreciate and understand the structure and rhyme scheme of the poem</li> <li>Understand the poetic style</li> <li>Compose your own poem</li> <li>Comprehend the literal meaning of the poem</li> <li>Appreciate aesthetically the religious aspect of the poem</li> <li>Interpret the central idea of the poem</li> <li>Comprehend and answer questions based on the poem</li> </ul>
		<ul style="list-style-type: none"> <li>Socio-moral sensibility</li> <li>Theatrical aptitude</li> <li>Rhythmic intelligence</li> <li>Character analysis</li> <li>Analytical ability</li> </ul>	<ul style="list-style-type: none"> <li>Interpret and compare the social and moral issues presented in the text</li> <li>Know about the author and his literary works</li> <li>Comprehend the context of the play and relate it to the present-day scenario through discussions</li> <li>Enact the play, taking care of the pitch, voice modulation, diction and sound effects</li> <li>Evaluate each others' performances</li> <li>Enact a skit based on the tools of satire</li> <li>Compose your own poem</li> <li>Analyse and interpret the traits of the protagonist of the play</li> <li>Analyse the theme of the play through a debate</li> <li>Understand how arguments are developed and then resolved</li> <li>Comprehend and answer questions based on the play</li> <li>Analyse the play by interpreting it visually</li> </ul>

Ch.No.	Literature Component	Skills	Learning Outcome
4.	Poetry <i>One Inch Tall</i> by Sheldon Allan Silverstein (Poem)	<ul style="list-style-type: none"> <li>Emotional sensitivity</li> <li>Expression and intonation</li> <li>Rhythmic intelligence</li> <li>Creative thinking</li> <li>Critical appreciation</li> <li>Analytical ability</li> </ul>	<ul style="list-style-type: none"> <li>Decipher and comprehend the emotion behind the poem</li> <li>Know about the poet's life and literary works through a timeline graphic organiser</li> <li>Relate to and identify the poetic voice and feelings</li> <li>Use appropriate body language while reciting the poem</li> <li>Modulate the pitch and volume of the voice</li> <li>Appreciate and understand the structure and rhyme scheme of the poem</li> <li>Understand the poetic style</li> <li>Compose your own poem using metaphors</li> <li>Demonstrate an understanding of the poem and write a metaphorical poem</li> <li>Comprehend the literal meaning of the poem and write your own poem based on it</li> <li>Appreciate aesthetically the central theme of the poem through a diary entry</li> <li>Comprehend and answer questions based on the poem</li> <li>Interpret the central idea of the poem</li> </ul>
5.	Prose <i>Broken Panes</i> by R K Narayan (Short Story)	<ul style="list-style-type: none"> <li>Cognitive ability</li> <li>Judgemental ability</li> <li>Theatrical aptitude</li> <li>Cultural sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>Comprehend and acquire knowledge about characters and setting from the story</li> <li>Know about the author and his literary works</li> <li>Gain better understanding of the story through peer and group work</li> <li>Understand the writer's perspective</li> <li>Present your own perspective through comparisons and discussions</li> <li>Enact scenes, taking care of the pitch, voice modulation, diction and sound effects</li> <li>Perceive the cultural setting of the era through the story</li> <li>Gain better understanding of the story through group work</li> </ul>

Ch.No.	Literature Component	Skills	Learning Outcome
6.	Prose <i>Vikramaditya's Throne</i> by Poile Sengupta (Novel)	<ul style="list-style-type: none"> <li>• Creative thinking</li> <li>• Analytical ability</li> <li>• Cognitive ability</li> <li>• Judgemental ability</li> <li>• Character analysis</li> <li>• Cultural sensitivity</li> <li>• Creative thinking</li> <li>• Analytical ability</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate an understanding of the plot and the major characters in the story</li> <li>• Interpret the story and present it visually</li> <li>• Comprehend and answer questions based on the story</li> <li>• Comprehend and acquire knowledge about characters and setting from the text</li> <li>• Know about the author and her literary works through designing an interview</li> <li>• Gain better understanding of the text through peer and group work</li> <li>• Understand the writer's perspective</li> <li>• Present your own perspective through a discussion</li> <li>• Interpret and analyse a character through the perception of another character</li> <li>• Analyse and interpret the traits of the characters in the novel</li> <li>• Perceive the cultural setting of the era through the text</li> <li>• Gain better understanding of the text through group work</li> <li>• Demonstrate an understanding of the plot and the major characters in the novel</li> <li>• Write about the narrative style of the novel</li> <li>• Comprehend and answer questions based on the text</li> </ul>
7.	Prose <i>Excerpts from the 'Diary of a Young Girl'</i> by Anne Frank (Diary)	<ul style="list-style-type: none"> <li>• Cognitive ability</li> <li>• Judgemental ability</li> </ul>	<ul style="list-style-type: none"> <li>• Comprehend and acquire knowledge about characters and setting from the text</li> <li>• Gain better understanding of the text with the help of a game</li> <li>• Know more about the author of the diary</li> <li>• Understand the writer's perspective through the visual mediums of paintings and mime shows</li> <li>• Present your own perspective of the writer's context and scenario</li> </ul>

Ch.No.	Literature Component	Skills	Learning Outcome
		<ul style="list-style-type: none"> <li>• Theatrical aptitude</li> <li>• Cultural sensitivity</li> <li>• Creative thinking</li> <li>• Analytical ability</li> </ul>	<ul style="list-style-type: none"> <li>• Enact episodes through mime</li> <li>• Perceive the cultural setting of the era through the text</li> <li>• Gain better understanding of the text through group work</li> <li>• Demonstrate an understanding of the plot and the major characters in the text</li> <li>• Write about the historical aspect of the text</li> <li>• Interpret the tragedy in the text</li> <li>• Comprehend and answer questions based on the text</li> </ul>
8.	Poetry <i>If</i> by Rudyard Kipling (Poem)	<ul style="list-style-type: none"> <li>• Emotional sensitivity</li> <li>• Character analysis</li> <li>• Expression and intonation</li> <li>• Rhythmic intelligence</li> <li>• Critical appreciation</li> <li>• Analytical ability</li> </ul>	<ul style="list-style-type: none"> <li>• Decipher and comprehend the emotion behind the poem by discussing and writing about the virtues and dignity of a human being</li> <li>• Relate to and identify the poetic voice and feelings through a pen portrait</li> <li>• Know more about the poet and his literary works</li> <li>• Analyse and interpret the traits of the characters in the poem</li> <li>• Use appropriate body language while reciting the poem</li> <li>• Modulate the pitch and volume of the voice</li> <li>• Appreciate and understand the structure and rhyme scheme of the poem</li> <li>• Understand the poetic style</li> <li>• Comprehend the literal meaning of the poem and write your own poem based on it</li> <li>• Appreciate aesthetically the central theme of the poem through paragraph writing</li> <li>• Comprehend and answer questions based on the text</li> <li>• Interpret the central idea of the poem</li> </ul>



### कौशल

अध्यय संख्या

विषय

श्रवण

- चित्रात्मकता
- आत्मसात करना
- आलोचनात्मक चिंतन

वाचन

- अभिव्यक्ति क्षमता
- तालकात्मिक वाचन
- संबादात्मक संश्लेषण

पठन

- बोधगम्यता
- विश्लेषण

लेखन

- सूचनात्मक लेखन
- शैक्षिक लेखन
- प्रलेखन

अन्वेषक संदर्शिका

#### 1. भाषा और उसका क्षेत्र

- भाषा के प्रकार
- भारतीय संविधान में उल्लिखित भाषाएँ
- भाषा की विशेषताएँ
- हिंदी का महत्व
- राजभाषा और राष्ट्रभाषा में अंतर
- राजभाषा हिंदी का क्षेत्र

- हिंदी भाषा संबंधी शेषक एवं अपने योग्य तथ्यों मुक्तियों आदि को ध्यानपूर्वक सुनना व आत्मसात करना।

- समाचार पत्रकता का अभिप्रेत करना व हिंदी भाषा के समाचार पत्र की सूझ प्रस्ताव की प्रभावपूर्ण अभिव्यक्ति करना।

- आधिक प्रकाशों व संकथापन संदर्भों के अंतर को विश्लेषित करना।
- 'कितना सीखा' शीर्षक में दिए भाषा संबंधी कथनों के सही-गलत होने की जाँच करना व अपनी बोधगम्यता के आधार पर रिक्त स्थानों की पूर्ति करना।

- 'पूराके' उपासी पत्रके अच्छी चित्र' विषय पर अपनी का गुण विवरण व भाषा के उचित रूप की महत्ता पर प्रकाश डालना।

भारतीय संविधान में भाषा के विकास व उपयोग पर प्रकाश डालना व लेखक का अभिप्रेत समझना।

#### 2. संधि

- व्यंजन संधि की परिभाषा व नियम
- विसर्ग संधि की परिभाषा व नियम

- व्यंजन व विसर्ग संधि संबंधी नियमों की व्याख्या उदाहरणसहित सुनकर समझना व उसे आत्मसात करना।

- व्यंजन संधि पर आधारित क्रियाकलाप के माध्यम में उचित संधि नियम का तालकात्मिक वाचन करना।

- व्यंजन संधि व विसर्ग संधि पर आधारित क्रियाकलापों के माध्यम में बोर्ड या वर्ग पहली में लिखे संधिपूर्वक शब्दों या वर्णों का अनुपम विश्लेषण करना व उनका संधि निच्छेद या संधि प्रस्तुत करना।
- विश्लेषणात्मक क्षमता के आधार पर 'कितना सीखा' शीर्षक में दिए व्यंजन संधि संबंधी नियमों के सही-गलत

- अनुपमपण प्रश्नों के उत्तर लिखना।

संधि की उचितता का ज्ञान में स्थान हुए कवितात्मकता सुनना की महत्ता पर प्रकाश डालना और व्याकरण के माध्यम से संधि की महत्ता का समझना।

### कौशल

अध्यय संख्या

विषय

श्रवण

- चित्रात्मकता
- आत्मसात करना
- आलोचनात्मक चिंतन

वाचन

- अभिव्यक्ति क्षमता
- तालकात्मिक वाचन
- संबादात्मक संश्लेषण

पठन

- बोधगम्यता
- विश्लेषण

लेखन

- सूचनात्मक लेखन
- शैक्षिक लेखन
- प्रलेखन

अन्वेषक संदर्शिका

#### 3. समास

- समास की परिभाषा
- समास के भेद

- शिक्षक द्वारा बोले गए लंबे वाक्यों को ध्यानपूर्वक सुनना व समासिक पदावली के प्रयोग द्वारा उनकी संक्षिप्त प्रस्तुति के महत्व को समझना।

- समासिक पदावली के प्रयोग द्वारा शीर्ष वाक्यों का संक्षिप्त रूप प्रस्तुत करना।

- मेघ द्वापदास के माध्यम से तत्पूरण, कर्मधारय व द्विवचन समास के समास व परस्पर भिन्न बिंदुओं को विश्लेषित कर समझना।

- कम शब्दों में अपनी बात कहने और साथ बचने में सहायक समासिक शब्दों की महत्ता का ज्ञान होने के पश्चात् 'समय के महत्व' पर पत्र व 'गागर में सागर' विषय पर निबंध लेखन का कार्य करना।

अपने मनपसंद कवि या गीत लेखक के जीवन, जन्म स्थान आदि में संबंधित जानकारी एकत्र कर समासिक पदावली के प्रयोग द्वारा उमका भाषण में प्रस्तुतीकरण करना एवं गीत लेखन व काव्य रचना में समासपूर्वक भाषा के महत्व को समझना।

#### 4. शब्द-भेद (व्याकरणिक प्रकारों के आधार पर)

- विकारी शब्द
- अविकारी शब्द

- क्रियाकलाप के माध्यम से विकारी अविकारी शब्दों से संबंधित जानकारी को आत्मसात करना।

- वस्तु-विक्रता का अभिनय करना और विक्रय हेतु दी गई वस्तु-विक्रय का प्रचार-प्रसार कर विक्री करना व इसके लिए अधिकाधिक विकारी शब्दों जैसे विश्लेषण, संज्ञा आदि का प्रयोग करना।

- बोधगम्यता व विश्लेषण के आधार पर 'कितना सीखा' शीर्षक में दिए प्रश्नों के साथ स्मृति-पत्र को पूर्ण करना।

- विकारी अविकारी शब्दों का प्रयोग करते हुए बाल-व्रम की चर्चा पर आधारित गीतिका संवाचों को लिखना।

विषयगत जगत में विज्ञापनों की महत्ता की जानकारी प्राप्त करने के साथ-साथ जनहित में जारी किए जाने वाले विज्ञापनों में प्रयुक्त शब्दावली का ज्ञान प्राप्त करना।

अध्याय संख्या	विषय	श्रवण	वाचन	पठन	लेखन	अन्वेषक संदर्शिका
		<ul style="list-style-type: none"> <li>चित्रात्मकता</li> <li>आत्मसात करना</li> <li>आलोचनात्मक चिंतन</li> </ul>	<ul style="list-style-type: none"> <li>अभिव्यक्ति क्षमता</li> <li>तात्कालिक वाचन</li> <li>संवादात्मक संप्रेषण</li> </ul> <p>देना व स्वयं प्रश्न पृष्ठकर अपनी जिज्ञासाओं का समाधान करना।</p>	<ul style="list-style-type: none"> <li>बोधगम्यता</li> <li>विवेचना</li> <li>विश्लेषण</li> </ul>	<ul style="list-style-type: none"> <li>सृजनात्मक लेखन</li> <li>शैक्षिक लेखन</li> <li>प्रलेखन</li> </ul>	
5.	<b>शब्द-भेद (अर्थ के आधार पर)</b> <ul style="list-style-type: none"> <li>विलोम शब्द</li> <li>पर्यायवाची शब्द</li> <li>एकार्थक प्रतीत होने वाले शब्द</li> <li>समरूप भिन्नार्थक शब्द</li> <li>अनेकार्थी शब्द</li> <li>अनेक के लिए एक शब्द</li> </ul>	<ul style="list-style-type: none"> <li>शब्द-भेदों संबंधी जानकारी को ध्यानपूर्वक सुनना।</li> <li>समझना व आत्मसात करना।</li> </ul>	<ul style="list-style-type: none"> <li>क्रियाकलाप के माध्यम से शब्द-भेदों संबंधी प्रश्नों के शीघ्र उत्तर देना।</li> </ul>	<ul style="list-style-type: none"> <li>मुख्य पृष्ठ व पाठ में दिए अन्य ग्राफिक ऑर्गनाइजरम के माध्यम से शब्द-भेदों का अध्ययन-विश्लेषण करना।</li> </ul>	<ul style="list-style-type: none"> <li>अध्यासगत प्रश्नों के उत्तर लिखना।</li> </ul>	<p>स्कूल के ईको क्लब के पी. आर. ओ. का पर्यटन मैदान की कल्पना करते हुए क्लब द्वारा आयोजित गतिविधियों का मौखिक व लिखित वर्णन करना।</p>
6.	<b>पद-परिचय</b> <ul style="list-style-type: none"> <li>पद की परिभाषा</li> <li>पद-परिचय का अर्थ</li> <li>पद-परिचय में भिन्नता</li> </ul>	<ul style="list-style-type: none"> <li>पद-परिचय संबंधी उदाहरणों को आत्मसात करना।</li> </ul>	<ul style="list-style-type: none"> <li>पद-परिचय संबंधी प्रश्नों के उत्तर देना।</li> </ul>	<ul style="list-style-type: none"> <li>मुख्य पृष्ठ पर दिए ग्राफिक ऑर्गनाइजर के माध्यम से भाषा-चक्र को समझना।</li> <li>पद व शब्द के अंतर का अध्ययन-विश्लेषण करना।</li> <li>क्रियाकलाप के माध्यम से चयनित शब्द का उचित भेद खोजना एवं वाक्य में प्रयोग करना और इस प्रकार शब्द का पद में परिवर्तन करना।</li> </ul>	<ul style="list-style-type: none"> <li>अध्यासगत प्रश्नों के उत्तर लिखना।</li> </ul>	<p>अपने मनगसत नेता, अभिनेता आदि का साक्षात्कार लेने की कल्पना के परचात प्राप्त जानकारी को व रोमांचक अनुभव को अनुच्छेद के माध्यम से प्रस्तुत करना एवं उस अनुच्छेद में लिखे वाक्यों से चयनित किन्हीं पाँच पदों का व्याकरणिक परिचय देना।</p>

अध्याय संख्या	विषय	श्रवण	वाचन	पठन	लेखन	अन्वेषक संदर्शिका
		<ul style="list-style-type: none"> <li>चित्रात्मकता</li> <li>आत्मसात करना</li> <li>आलोचनात्मक चिंतन</li> </ul>	<ul style="list-style-type: none"> <li>अभिव्यक्ति क्षमता</li> <li>तात्कालिक वाचन</li> <li>संवादात्मक संप्रेषण</li> </ul>	<ul style="list-style-type: none"> <li>बोधगम्यता</li> <li>विवेचना</li> <li>विश्लेषण</li> </ul>	<ul style="list-style-type: none"> <li>सृजनात्मक लेखन</li> <li>शैक्षिक लेखन</li> <li>प्रलेखन</li> </ul>	
7.	<b>वाक्य-विचार</b> <ul style="list-style-type: none"> <li>वाक्य संबंधी मुख्य बातें</li> <li>वाक्य-प्रकार (अर्थ के आधार पर)</li> <li>वाक्य-परिवर्तन (रचना की दृष्टि से)</li> </ul>	<ul style="list-style-type: none"> <li>अर्थ के आधार पर वाक्य-प्रकार व रचना की दृष्टि से वाक्य-परिवर्तन संबंधी ज्ञान को आत्मसात करना।</li> </ul>	<ul style="list-style-type: none"> <li>क्रियाकलाप में दिए निर्देशानुसार पारस्परिक संप्रेषण व समूह भावना के साथ वाक्य-रचना करना।</li> </ul>	<ul style="list-style-type: none"> <li>'कितना सीखा' शीर्षक के अंतर्गत दिए गए चित्र-पठन के माध्यम से अर्थ के आधार पर वाक्य-रचना का अभ्यास करना।</li> <li>सरल, संयुक्त व मिश्र वाक्यों के अंतर को विश्लेषित व विवेचित करना।</li> </ul>	<ul style="list-style-type: none"> <li>अध्यासगत प्रश्नों के उत्तर लिखना।</li> </ul>	<p>भाषण लेखक की भूमिका निभाते हुए व सुंदर वाक्य-रचना का प्रयोग करते हुए 'संयुक्त परिवार का महत्व' विषय पर भाषण तैयार करना।</p>
8.	<b>अशुद्धि-शोधन</b> <ul style="list-style-type: none"> <li>वाक्य-रचना संबंधी अशुद्धियाँ</li> <li>अन्य अशुद्धियाँ</li> <li>विराम चिह्न संबंधी अशुद्धियाँ</li> </ul>	<ul style="list-style-type: none"> <li>भाषागत अशुद्धियों से बचने के नियमों को ध्यानपूर्वक सुनना-समझना।</li> </ul>	<ul style="list-style-type: none"> <li>क्रियाकलाप में दिए निर्देशानुसार वाक्य-रचना संबंधी अशुद्धियों से बचने के नियमों का बोलकर अभ्यास करना।</li> </ul>	<ul style="list-style-type: none"> <li>वाक्य-रचना व विराम चिह्न संबंधी अशुद्धियों के साथ अन्य अशुद्धियों को पढ़कर समझना व उनमें अंतर को पहचानना। साथ ही बोधगम्यता के आधार पर 'कितना सीखा' शीर्षक में दिए प्रश्नों को हल करना।</li> </ul>	<ul style="list-style-type: none"> <li>रचना प्रकाशित करवाने के लिए संपादक महोदय को पत्र लिखना व उसमें भाषागत शुद्धता का पूरा ध्यान रखना।</li> </ul>	<p>कुशल संपादक की भूमिका निभाते हुए समाचार-पत्र की कतरन में दी विराम चिह्न संबंधी अशुद्धियों का शोधन करना।</p>
9.	<b>मुहावरे एवं लोकोक्तियाँ</b> <ul style="list-style-type: none"> <li>मुहावरा</li> <li>लोकोक्ति</li> <li>मुहावरा व लोकोक्ति में अंतर</li> </ul>	<ul style="list-style-type: none"> <li>लोकोक्तियों के अर्थ सुनकर सही लोकोक्ति का नाम पहचानना।</li> </ul>	<ul style="list-style-type: none"> <li>क्रियाकलाप में दिए निर्देशानुसार मुहावरों की अभिनयात्मक अभिव्यक्ति करना।</li> </ul>	<ul style="list-style-type: none"> <li>मुहावरा व लोकोक्ति के अंतर को समझना।</li> <li>चित्र विश्लेषण के द्वारा चित्र में छिपे मुहावरों व उनके अर्थों को लिखना।</li> </ul>	<ul style="list-style-type: none"> <li>नववर्ष की शुभकामनाएँ देते हुए अपने किसी प्रियजन को पत्र लिखना व पत्र में सुंदर मुहावरों का प्रयोग करना।</li> </ul>	<p>किसी मुहावरे या लोकोक्ति के नाम में आने वाले खाद्य वृंजन की विधि लिखना व 'खाना-खजाना' नामक टी.वी. कार्यक्रम के सूत्रधार की कल्पना के रूप में उस खाद्य</p>

अध्याय संख्या	विषय	श्रवण	वाचन	पठन	लेखन	अन्वेषक संदर्शिका
		<ul style="list-style-type: none"> <li>चित्रात्मकता</li> <li>आत्मसात करना</li> <li>आलोचनात्मक चिंतन</li> </ul>	<ul style="list-style-type: none"> <li>अभिध्व्यक्ति क्षमता</li> <li>तात्कालिक वाचन</li> <li>संवादात्मक संप्रेषण</li> </ul>	<ul style="list-style-type: none"> <li>बोधगम्यता</li> <li>विशेषज्ञता</li> <li>विरलेषण</li> </ul>	<ul style="list-style-type: none"> <li>सृजनात्मक लेखन</li> <li>शैक्षिक लेखन</li> <li>प्रलेखन</li> </ul>	<p>व्यंजन की विधि की पढ़ावबद्ध भाषा के माध्यम से प्रस्तुत करना।</p>
10.	अलंकार	<ul style="list-style-type: none"> <li>अलंकार संबंधी जानकारी को ध्यानपूर्वक सुनना, समझना व आत्मसात करना।</li> </ul>	<ul style="list-style-type: none"> <li>शब्द चक्र घुमाकर शब्दालंकार व अर्थालंकार के भेदों में संबंधित प्रश्नों के शीघ्र उत्तर देना व स्वयं प्रश्न पूछकर अपनी जिज्ञासाओं का समाधान करना।</li> </ul>	<ul style="list-style-type: none"> <li>शब्दालंकार व अर्थालंकार के अंतर को पढ़कर समझना।</li> <li>काव्यशांश के पठन के पश्चात् उसमें निहित अनुप्रास अलंकार के उदाहरण छंटना।</li> </ul>	<ul style="list-style-type: none"> <li>पिताजी की पाठ लिखकर किसी मनोरम पर्यटन स्थल की यात्रा की जानकारी देना व इसमें उपमा व रूपक अलंकारों के प्रयोग द्वारा पर्यटन स्थल की सुंदरता का वर्णन करना।</li> <li>अलंकारयुक्त भाषा का प्रयोग करते हुए निबंध लेखन का कार्य करना।</li> </ul>	<p>समागोह आगोचक की भूमिका निभाते हुए व अलंकारयुक्त भाषा का प्रयोग करते हुए समागोह का आयोजन पाठ तैयार करना।</p>

# हिंदी

## साहित्य

## कक्षा

# 8

अध्याय संख्या	अध्याय का नाम	कौशल	अध्ययन फल
1.	वीणा-वादिनी (कविता)	<ul style="list-style-type: none"> <li>ज्ञानात्मक क्षमता</li> <li>भावनात्मक संवेदनशीलता</li> <li>विरलेषणात्मक क्षमता</li> <li>सांस्कृतिक संवेदनशीलता</li> <li>सृजनात्मक चिंतन</li> <li>हाव-भाव और स्वर शैली</li> </ul>	<ul style="list-style-type: none"> <li>कवि निराला के जीवन, रचनाओं, भाषा आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>कविता के मूल भाव को समझकर उसकी व्याख्या करना</li> <li>कविता के शीर्षक के विषय में अपना पूर्वानुमान बताना</li> <li>कविता में आए कठिन शब्दों के अर्थ लिखना</li> <li>पाठ संबंधी अन्य महत्वपूर्ण प्रश्नों के उत्तर लिखना</li> <li>'वसंत पंचमी' के सांस्कृतिक महत्व पर प्रकाश डालते हुए अनुच्छेद लिखना</li> <li>देश के विकास हेतु किए जाने योग्य अनिवार्य प्रयासों का उल्लेख करना</li> <li>कविता गायन प्रतियोगिता में कविता गाते समय उचित हाव-भाव एवं स्वर शैली का प्रयोग करना</li> </ul>
2.	लालू-भाग दो (कहानी)	<ul style="list-style-type: none"> <li>चरित्र विरलेषण</li> <li>आलोचनात्मक समीक्षा</li> <li>ज्ञानात्मक क्षमता</li> <li>सृजनात्मक चिंतन</li> </ul>	<ul style="list-style-type: none"> <li>कहानी के मुख्य पात्र 'लालू' का चरित्रिक विरलेषण करना</li> <li>पाठ संबंधी अन्य महत्वपूर्ण प्रश्नों के उत्तर लिखना</li> <li>बलि प्रथा नामक समस्या को समाप्त कराने के लिए लालू के विरोध प्रदर्शन की शैली को आलोचनात्मक समीक्षा करना</li> <li>कहानीकार शरतचंद्र के जीवन, रचनाशैली आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>भारतीय पुनर्जागरण के जनक राजा राममोहन राय द्वारा समाज-सुधार के लिए किए जाने वाले प्रयासों का उल्लेख करना</li> <li>कुप्रथाओं के विरोध में चलाए जाने वाले जागरूकता अभियान हेतु प्रचार वाक्य लिखना</li> <li>कुरीति उन्मूलन के प्रयास पर आधारित एक नवीन एवं भावप्रधान कहानी की रचना करना</li> </ul>
3.	101, प्रभु कुंज (जीवनी)	<ul style="list-style-type: none"> <li>ज्ञानात्मक क्षमता</li> <li>चरित्र विरलेषण</li> <li>विरलेषणात्मक क्षमता</li> <li>हाव-भाव और स्वर शैली</li> <li>मूल्यांकन क्षमता</li> <li>भावनात्मक संवेदनशीलता</li> </ul>	<ul style="list-style-type: none"> <li>लेखक हरीश भिमानी के कार्यक्षेत्र, शिक्षा, विचारधारा आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>नाइटिंगल ऑफ इंडिया अर्थात् लता मंगेशकर के प्रभावशाली व्यक्तित्व का विरलेषण करना</li> <li>पाठ संबंधी प्रश्नों के उत्तर लिखना</li> <li>उचित हाव-भाव और स्वर शैली के साथ विज्ञापन के माध्यम से प्रचार करना</li> <li>'बच्चों के विकास के लिए प्यार बहुत महत्वपूर्ण है' नामक विषय पर चर्चा करते हुए अपना मत प्रस्तुत करना</li> <li>अपने प्रिय पारिवारिक व्यक्ति से संबंधित किसी विशिष्ट घटना को संस्मरण के रूप में लिखना</li> </ul>

अध्याय संख्या	अध्याय का नाम	कौशल	अध्ययन फल
4.	विद्वान और व्यापारी (नाटक)	<ul style="list-style-type: none"> <li>नाटकीय प्रवृत्ति</li> <li>विश्लेषणात्मक क्षमता</li> <li>ज्ञानात्मक क्षमता</li> </ul>	<ul style="list-style-type: none"> <li>नाटक की अभिजात्यक प्रस्तुति करना</li> <li>नाटक विधा एवं पाठ से संबंधित प्रश्नों के उत्तर लिखना</li> <li>निबंधकार गिरिजाशरण आनंद के जीवन, कार्यक्षेत्र आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>जीवन अनुभवों से प्राप्त ज्ञान के आधार पर 'जायसी संबंधों के महत्व' पर अपने विचार व्यक्त करना</li> <li>अपने मनपसंद कार्यक्षेत्र का चयन करना और क्षेत्र विशेष में प्रयोग में लाई जाने वाली शब्दावली को ध्यान में रखते हुए कोई छः संवाद बताना</li> <li>शिक्षा के महत्व पर आधारित एस- एम- एम- लिखना</li> <li>नाटक में से विभिन्न भावों को व्यक्त करने वाली पंक्तियाँ चुनकर लिखना</li> </ul>
5.	एक और भूत (उपन्यास)	<ul style="list-style-type: none"> <li>ज्ञानात्मक क्षमता</li> <li>सृजनात्मक चिंतन</li> <li>विश्लेषणात्मक क्षमता</li> <li>मूल्यांकन क्षमता</li> <li>चरित्र विश्लेषण</li> </ul>	<ul style="list-style-type: none"> <li>उपन्यासकार हरिकृष्ण देवमरे के जीवन, कार्यक्षेत्र आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>'संगठन की शक्ति' नामक विषय पर अनुच्छेद लिखना</li> <li>भूत-प्रेत पर आधारित कहानियों, उपन्यासों अथवा टी- वी- पर प्रस्तुत होने वाले धारवाहिकों आदि के जनमानस पर पड़ने वाले प्रभाव का विश्लेषण करना</li> <li>'भूत-प्रेत : भ्रम या सत्य' विषय के पक्ष-विपक्ष में अपने विचार व्यक्त करना</li> <li>लोगों के मन से भूत-प्रेत संबंधी अंधविश्वास को निकालने के लिए किए जाने वाले प्रयासों का उल्लेख करना</li> <li>उपन्यास के सहायक पात्रों जैसे जादूगर या भैरोंनाथ के चरित्र का विश्लेषण करना और अपने प्रिय पात्र का चुनाव करना</li> </ul>
6.	मीराबाई और तुलसीदास के पद (पद)	<ul style="list-style-type: none"> <li>ज्ञानात्मक क्षमता</li> <li>भावनात्मक संवेदनशीलता</li> <li>हाव-भाव एवं स्वर शैली</li> <li>विश्लेषणात्मक क्षमता</li> <li>सृजनात्मक चिंतन</li> <li>चरित्र विश्लेषण</li> </ul>	<ul style="list-style-type: none"> <li>मीराबाई व तुलसीदास के जीवन, रचनाओं आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>मीराबाई व तुलसीदास के भक्तिपूर्ण पदों के मूल भावों को समझना और उनकी व्याख्या करना</li> <li>उचित हाव-भाव एवं स्वर शैली के साथ पदों को गाकर सुनाना</li> <li>पदों में आए कठिन शब्दों के उचित अर्थ लिखना</li> <li>पदों पर आधारित प्रश्नों के उत्तर लिखना</li> <li>श्रीकृष्ण के जीवन से संबंधित किसी घटना की जानकारी एकत्रित करना और कल्पना के आधार पर घटना की चित्रात्मक प्रस्तुति करना</li> <li>तुलसीदास और मीराबाई की चारित्रिक समानताओं व असमानताओं को तुलना करना</li> </ul>

अध्याय संख्या	अध्याय का नाम	कौशल	अध्ययन फल
7.	सत्यदास (कहानी)	<ul style="list-style-type: none"> <li>ज्ञानात्मक क्षमता</li> <li>चरित्र विश्लेषण</li> <li>मूल्यांकन क्षमता</li> <li>ज्ञानात्मक क्षमता</li> <li>नैतिक संवेदनशीलता</li> <li>सांस्कृतिक संवेदनशीलता</li> </ul>	<ul style="list-style-type: none"> <li>कहानीकार विमलकर के जीवन, रचनाओं आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>पाठ संबंधी प्रश्नों के उत्तर लिखना</li> <li>कहानी के नामकरण की सार्थकता पर प्रकाश डालना</li> <li>कहानी के प्रमुख पात्रों की चारित्रिक विशेषताएँ उद्धरण सहित लिखना</li> <li>'मौन रहना - कायरता या बुद्धिमानी' नामक विषय पर विचार व्यक्त करना</li> <li>समाज के विकास में महत्वपूर्ण भूमिका निभाने वाले व्यक्तियों के प्रमुख उतरदायित्वों का उल्लेख करना</li> <li>जीवन में नैतिक मूल्यों के महत्व पर अपने विचार व्यक्त करना</li> <li>नैतिक मूल्यों की महत्ता को स्पष्ट करनेवाली कोई अन्य कहानी लिखना</li> <li>भारतीय संस्कृति में अतिथि-सत्कार की परंपरा व स्वरूप पर प्रकाश डालना</li> </ul>
8.	हंसी-खुरी (निबंध)	<ul style="list-style-type: none"> <li>ज्ञानात्मक क्षमता</li> <li>भावनात्मक संवेदनशीलता</li> <li>विश्लेषणात्मक क्षमता</li> <li>सृजनात्मक चिंतन</li> <li>हाव-भाव और स्वर शैली</li> <li>नाटकीय प्रवृत्ति</li> </ul>	<ul style="list-style-type: none"> <li>निबंधकार बालमुकुंद गुप्त के जीवन, रचनाओं आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>निबंध के मूल भाव को पली-भाँति आत्मसात कर अपने शब्दों में बताना</li> <li>हंसी-खुरी के महत्व से संबंधित विभिन्न विद्वानों और डॉक्टरों के विचारों पर प्रकाश डालना</li> <li>पाठ संबंधी प्रश्नों के उत्तर लिखना</li> <li>हास्यासन के महत्व को प्रकट करना</li> <li>किसी हास्य अनुभव की रोचक प्रस्तुति करना</li> <li>बढ़ती महंगाई' विषय पर हास्य अथवा व्यंग्यपूर्ण कविता पढ़कर सुनाना</li> <li>कठपुतली प्रदर्शन प्रतियोगिता में हास्य नाटिका प्रस्तुत करना</li> </ul>
9.	मधुआ (कहानी)	<ul style="list-style-type: none"> <li>भावनात्मक संवेदनशीलता</li> <li>चरित्र विश्लेषण</li> <li>विश्लेषणात्मक क्षमता व ज्ञानात्मक क्षमता</li> <li>मूल्यांकन क्षमता</li> </ul>	<ul style="list-style-type: none"> <li>'मधुआ' कहानी एवं बालश्रम पर आधारित अपठित गद्यांश को पढ़ना व उनके मूल भाव को समझना</li> <li>कहानी के मुख्य पात्र 'शराबी' के चरित्र में आए बदलाव का वर्णन करना</li> <li>कहानीकार जयशंकर प्रसाद के जीवन, रचनाओं आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>पाठ एवं अपठित गद्यांश से संबंधित प्रश्नों के उत्तर लिखना</li> <li>जयशंकर प्रसाद की प्रसिद्ध कहानियों के मुख्य दृश्यों पर आधारित चित्रों का विश्लेषण करना</li> <li>बालश्रम जैसी शर्मनाक समस्या के कारणों, दुष्प्रभावों, समाधानों आदि पर विचार करना</li> <li>किसी बालश्रमिक का साक्षात्कार लेना और तत्परचात प्राप्त जानकारी के आधार पर उस बालक की कहानी अपने शब्दों में लिखना</li> <li>बाल मजदूरों की सहायता के लिए जाने वाले प्रयासों का उल्लेख करना</li> </ul>

अध्याय संख्या	अध्याय का नाम	कौशल	अभ्ययन फल
10.	दिल्ली (कविता)	<ul style="list-style-type: none"> <li>ज्ञानात्मक क्षमता</li> <li>हाव-भाव और स्वर शैली</li> <li>भावात्मक संवेदनशीलता</li> <li>विश्लेषणात्मक क्षमता</li> <li>सृजनात्मक चिंतन</li> </ul>	<ul style="list-style-type: none"> <li>कवि दिनकर के जीवन, रचनाओं आदि से संबंधित प्रश्नों के उत्तर देना</li> <li>कविता गायन के समय उचित हाव-भाव एवं स्वर शैली का प्रयोग करना</li> <li>कविता के माध्यम से प्रेरित कवि के मुख्य कथ्य को समझना</li> <li>काव्य में निहित भावों की व्याख्या करना</li> <li>गाँवों व शहरों के बीच असमानता के मुख्य कारणों पर प्रकाश डालना</li> <li>देश की प्रगति में बाधक समस्याओं का वर्णन करना</li> <li>दिल्ली के राजनीतिक, आर्थिक स्वरूप का विश्लेषण करते हुए 'मेरी दिल्ली' विषय पर अनुच्छेद लिखना</li> <li>भविष्य संबंधी अपनी कल्पनाओं को लेखनीबद्ध करना</li> </ul>

# Math

## Part - 1

# Class 8

### S K I L L S

Ch.No.	Topic	Knowledge <ul style="list-style-type: none"> <li>Retention</li> <li>Comprehension</li> <li>Identification</li> <li>Assimilation</li> </ul>	Application <ul style="list-style-type: none"> <li>Correlation</li> <li>Reasoning</li> <li>Problem solving</li> <li>Inference</li> </ul>	Mathematical Skills <ul style="list-style-type: none"> <li>Data handling</li> <li>Graphical representation</li> <li>Procedural fluency</li> <li>Visual and spatial skills</li> </ul>	Explorer's Quest
1.1	<b>Rational Numbers</b> <ul style="list-style-type: none"> <li>Properties of Rational Numbers</li> <li>Representation of Rational Numbers on the Number Line</li> </ul>	<ul style="list-style-type: none"> <li>Stating the properties of rational numbers under all the operations</li> <li>Classifying rational numbers as fractions and decimals</li> <li>Converting non-terminating recurring decimals to fractions</li> </ul>	<ul style="list-style-type: none"> <li>Verifying the properties of rational numbers under different operations</li> <li>Applying the properties of rational numbers while simplifying mathematical expressions</li> <li>Solving real-life problems involving basic operations on rational numbers</li> <li>Drawing conclusions regarding changes to be made on the number line while representing different types of numbers on it through an activity</li> </ul>	<ul style="list-style-type: none"> <li>Showing procedural fluency and accuracy in calculations while simplifying rational expressions and finding rational numbers between any two rational numbers</li> <li>Representing different types of rational numbers on the number line</li> </ul>	<p>The learner analyses the data, makes calculations and draws conclusions while organising the sports event in school.</p>

## S K I L L S

Ch.No.	Topic	<b>Knowledge</b> ↳ Retention ↳ Comprehension ↳ Identification ↳ Assimilation	<b>Application</b> ↳ Correlation ↳ Reasoning ↳ Problem solving ↳ Inference	<b>Mathematical Skills</b> ↳ Data handling ↳ Graphical representation ↳ Procedural fluency ↳ Visual and spatial skills	<b>Explorer's Quest</b>
	• Rational Numbers Between Two Rational Numbers	• Understanding two methods of finding rational numbers between any two rational numbers • Stating the Density Property of rational numbers that there are infinitely many rational numbers between any two rational numbers			
1.2	<b>Exponents and Powers</b> • Exponents	• Identifying exponents and base of a number in exponential form; numbers with positive and negative exponents • Expressing numbers with positive or negative exponents • Defining multiplicative inverse • Expanding numbers using exponents • Stating five laws of exponents	• Deriving results using laws of exponents		The learner represents metric prefixes in exponential form and vice versa, searches for different physical quantities with their values expressed by using metric prefixes, establishes a relation between any two physical quantities, sorts data in ascending

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	• Uses of Exponents	• Defining standard form of a number • Expressing very large and very small numbers in standard form and vice versa	• Applying laws of exponents to simplify mathematical and algebraic expressions through an activity • Arranging numbers in standard form in ascending order through an activity • Correlating two quantities by comparing and ordering numbers in standard form	• Showing procedural fluency and accuracy in calculations while solving problems by applying operations on numbers in standard form	order and converts exponential data in standard form.
1.3	<b>Squares and Square Roots</b> • Square Numbers	• Finding the square of a number • Stating the properties of square numbers • Identifying whether the given numbers are square numbers or not using suitable properties	• Verifying the properties of square numbers		The learner plans the seating arrangement for the audience while organising the cultural programme in such a manner that it forms a square, performs calculations, draws a blueprint and answers the

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		<ul style="list-style-type: none"> <li>Understanding the method of checking whether the given number is a square number or not</li> </ul>			questions based on it.
	<ul style="list-style-type: none"> <li>Patterns in Square Numbers</li> </ul>	<ul style="list-style-type: none"> <li>Defining triangular numbers</li> </ul>	<ul style="list-style-type: none"> <li>Verifying the patterns in square numbers by substituting values for the variables</li> <li>Applying the results based on patterns in square numbers for solving related problems</li> </ul>		
	<ul style="list-style-type: none"> <li>Finding the Square of a Number</li> </ul>	<ul style="list-style-type: none"> <li>Finding the square of a number without actual multiplication by using identities and square of numbers ending with 5 using a shortcut method</li> <li>Stating the general rule for finding members of Pythagorean triplet</li> </ul>	<ul style="list-style-type: none"> <li>Verifying the Pythagorean triplet by using Pythagorean theorem</li> </ul>	<ul style="list-style-type: none"> <li>Showing procedural fluency and accuracy in calculations while calculating squares of numbers in different cases</li> </ul>	

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	<ul style="list-style-type: none"> <li>Square Roots</li> <li>Square Roots of Decimals</li> </ul>	<ul style="list-style-type: none"> <li>Defining the square root of a number and finding the same by repeated subtraction, prime factorisation and long division method</li> <li>Stating the properties of square roots</li> <li>Converting non-perfect squares into perfect squares by applying required operations</li> <li>Finding square roots of decimals using long division method and estimating square roots of numbers</li> </ul>	<ul style="list-style-type: none"> <li>Solving daily life problems using the concept of squares and square roots</li> </ul>	<ul style="list-style-type: none"> <li>Showing procedural fluency and accuracy in calculations while finding square roots using different methods</li> </ul>	
1.4	<b>Cubes and Cube Roots</b> <ul style="list-style-type: none"> <li>Cube Numbers</li> </ul>	<ul style="list-style-type: none"> <li>Defining cube numbers</li> <li>Stating the properties of cube numbers</li> <li>Understanding the method of checking whether the given number is a cube number or not</li> </ul>	<ul style="list-style-type: none"> <li>Observing the patterns based on cube numbers and generalising the conclusions</li> </ul>	<ul style="list-style-type: none"> <li>Showing procedural fluency and accuracy in calculations while checking whether the given number is a cube number or not</li> </ul>	The learner designs a solid cube by using the small unit cubes and tests the truthfulness of a few inferences drawn to understand the fundamentals of cube numbers.

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1.5	• Cube Root of a Number  • Playing with Numbers • Numbers in General Form  • Number Games	• Defining the cube root of a number • Understanding the method of finding the cube root of a number by prime factorisation and by estimation  • Representing two-digit and three-digit numbers in general form and solving related problems	• Deriving results, making generalisations and solving related problems (a) when a two-digit number is added to its reverse (b) when a two-digit or a three-digit number is subtracted from its reverse (c) when the given three-digit number and the numbers	• Showing procedural fluency while finding the cube root of mathematical expressions by prime factorisation and estimation  • Handling numerical data	

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2.1	• Letters for Digits  • Tests of Divisibility	• Finding missing digits of numbers while applying addition, subtraction or multiplication  • Stating the tests of divisibility by 2, 3, 4, 5, 6, 8, 9, 10 and 11	obtained by interchanging its digits in cyclic order are added  • Applying the tests of divisibility to check whether the given number is divisible by some specific numbers or not and giving appropriate reasons • Understanding the reasons behind the working of divisibility tests		
	• Comparing Quantities • Comparing Quantities: Ratios and Percentages	• Converting ratios to percentages and vice versa • Stating the formulae for increase and decrease in per cent, profit, loss and	• Solving real-life problems involving conversion of ratios to percentages and vice versa • Applying the concept of	• Showing procedural fluency and accuracy in calculations while dealing with problems involving ratios and percentages	



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		discount • Understanding the concept of successive discounts, estimation in percentages, sales tax and value added tax	increase and decrease in per cent, profit, loss, discount, successive discount, sales tax and value added tax in solving real life problems • Preparing and verifying an invoice by applying the concepts of discount, sales tax and VAT through an activity	• Handling numerical data	income statement for the next year by applying the concept of percentages and makes a comparison for both the years by using a double bar graph.
	• Simple Interest	• Stating the formula of simple interest	• Solving problems for finding simple interest and the dependent quantities, i.e., principal, rate of interest and time		
	• Compound Interest and Its Formula Derivation	• Deriving formula of compound interest using the formula of simple interest • Understanding all the 4 cases when the conversion period varies and its effect on compound interest formula	• Applying compound interest formula while solving problems based on growth and depreciation		

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2.2	<b>Direct and Inverse Proportions</b> • Direct Proportions • Inverse Proportions  • Applications	• Identifying the kind of variation to find the missing quantities • Defining the constant of proportionality for both kinds of variation	• Solving daily life problems using the concept of direct and inverse proportions  • Solving daily life problems based on "Time and work" and "Distance, speed and time"	• Showing procedural fluency and accuracy in calculations while solving daily life problems based on direct and inverse proportions	The learner needs to work out the plans and processes involved in estimating the human and other resources required for smooth and efficient functioning of the school when two new sports activities and language courses are introduced in class-VIII.

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3.1	<b>Algebraic Expressions and Identities</b> • Algebraic Expressions  • Operations on Algebraic Expressions	• Defining an algebraic expression • Identifying the terms, coefficients, like and unlike terms in an algebraic expression • Classifying algebraic expressions as monomial, binomial, trinomial and polynomial • Defining and identifying the degree of an algebraic expression with one or more than one variable  • Understanding different methods of applying operations, i.e., addition, subtraction and	• Framing an algebraic expression and writing its characteristics through an activity  • Applying required operations in solving real-life problems through an activity	• Representing algebraic expressions on the number line  • Showing procedural fluency and accuracy in calculations while applying operations on	The learner makes an inventory of the medicines in stock, checks how many medicines have expired and how many needs to be replaced.

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	• Algebraic Identities	multiplication on algebraic expressions  • Differentiating between algebraic equation and algebraic identity • Finding the product of numbers and algebraic expressions by using standard algebraic identities	• Proving the standard algebraic identities algebraically	algebraic expressions and evaluating them for given values of unknown variables  • Interpreting and verifying standard algebraic identities geometrically through an activity • Showing procedural fluency and accuracy in simplifying and evaluating the algebraic expressions using algebraic identities	
3.2	<b>Factorisation</b> • Factorisation of Algebraic Expressions	• Understanding different methods of factorisation of algebraic expressions, i.e., by taking out the common factors, regrouping the terms and using algebraic identities	• Preparing algebraic tiles to form a rectangle and applying the concept of factorisation to find its area and dimensions through an activity	• Showing procedural fluency and accuracy in calculations while finding the HCF of monomials, factorising, expanding and evaluating algebraic expressions	The learner decodes a coded message related to a special date associated with the life of a famous personality by applying factorisation and finds the name of that person using the sequence of the dates and

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	<ul style="list-style-type: none"> <li>• Division of Algebraic Expressions</li> <li>• Common Errors in Algebra</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding the methods of dividing                             <ul style="list-style-type: none"> <li>- a monomial by another monomial</li> <li>- a polynomial by a monomial</li> <li>- a polynomial by another polynomial</li> </ul> </li> <li>• Identifying the common errors while doing algebraic work</li> </ul>	<ul style="list-style-type: none"> <li>• Stating the reason for the occurrence of common errors while performing algebraic work</li> </ul>	<ul style="list-style-type: none"> <li>• Showing procedural fluency and accuracy in calculations while carrying out the divisions of algebraic expressions</li> <li>• Showing accuracy in calculations in spotting and correcting the common errors while doing algebraic work</li> </ul>	
3.3	<b>Linear Equations in One Variable</b> <ul style="list-style-type: none"> <li>• Linear Equations in One Variable</li> <li>• Reducing Equations to Simpler Form and Linear Form</li> </ul>	<ul style="list-style-type: none"> <li>• Defining linear equations in one variable</li> <li>• Assimilating all the methods of solving linear equations in one variable of different kinds</li> <li>• Reducing equations to its simpler or linear form and solving them for unknown variable</li> </ul>	<ul style="list-style-type: none"> <li>• Solving real-life word problems involving linear equations in one variable through an activity</li> <li>• Verifying the solution of linear equations in one variable</li> </ul>	<ul style="list-style-type: none"> <li>• Showing procedural fluency and accuracy in calculations while solving linear equations in one variable and related real-life word problems</li> </ul>	The learner estimates the selling price of the new mobile handset and the total number of new mobile handsets that must have been sold to reach break-even point on the basis of the given data.

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	<ul style="list-style-type: none"> <li>• Application of Linear Equations in One Variable</li> </ul>	<ul style="list-style-type: none"> <li>• Formulating real-life word problems as linear equations in one variable and applying a suitable method to solve it</li> </ul>			
4.1	<b>Understanding Quadrilaterals</b> <ul style="list-style-type: none"> <li>• Curves</li> <li>• Polygons</li> </ul>	<ul style="list-style-type: none"> <li>• Defining a curve</li> <li>• Defining and identifying different types of curves</li> <li>• Identifying the interior and exterior of a closed curve</li> <li>• Defining polygons and knowing conditions under which a figure is not a polygon</li> <li>• Classifying polygons on the basis of number of sides</li> <li>• Defining a diagonal of a polygon and finding the number of diagonals in a polygon using a formula</li> <li>• Distinguishing between convex and concave</li> </ul>	<ul style="list-style-type: none"> <li>• Deriving interior and exterior angle sum properties of polygons</li> <li>• Drawing inferences for each interior and exterior angle of a polygon through an activity</li> </ul>	<ul style="list-style-type: none"> <li>• Showing procedural fluency and accuracy in finding the number of diagonals of the polygons and solving problems using angle sum properties of polygons</li> </ul>	The learner thinks of, discusses and makes a sketch of a furniture design using various types of quadrilaterals and identifies the quadrilaterals used by applying the properties of quadrilaterals.

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	<p>polygons: regular and irregular polygons</p> <ul style="list-style-type: none"> <li>• Quadrilaterals</li> </ul>	<ul style="list-style-type: none"> <li>• Defining a quadrilateral and its elements</li> <li>• Defining and stating the properties of trapezium and kite</li> <li>• Stating the properties of a parallelogram and some special parallelograms, i.e., square, rhombus and rectangle</li> </ul>	<ul style="list-style-type: none"> <li>• Proving the properties of a parallelogram</li> <li>• Proving the diagonal properties of some special parallelograms, i.e., rhombus, rectangle and square</li> <li>• Applying properties of parallelograms to solve related problems</li> <li>• Comparing the properties of quadrilaterals with respect to their sides, angles and diagonals through an activity</li> </ul>	<ul style="list-style-type: none"> <li>• Showing procedural fluency and accuracy in calculations while using the properties of quadrilaterals</li> </ul>	
4.2	<b>Practical Geometry</b> <ul style="list-style-type: none"> <li>• General Quadrilaterals</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding the method of constructing unique quadrilaterals under five different cases:                             <ul style="list-style-type: none"> <li>(a) when four sides and one diagonal are given</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Justifying whether a quadrilateral can be constructed uniquely or not under few combinations, with reasons and an example through an activity</li> </ul>	<ul style="list-style-type: none"> <li>• Constructing unique quadrilaterals under five different cases and special quadrilaterals</li> </ul>	The learner chooses a suitable quadrilateral for each type of interior and designs a blueprint for the same by first constructing the chosen quadrilateral.

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	<ul style="list-style-type: none"> <li>• Special Quadrilaterals</li> </ul>	<ul style="list-style-type: none"> <li>(b) when two diagonals and three sides are given</li> <li>(c) when two adjacent sides and three angles are given</li> <li>(d) when three sides and two included angles are given</li> <li>(e) when four sides and one angle are given</li> <li>• Understanding the method of constructing special quadrilaterals, i.e., parallelogram, rectangle, square and rhombus</li> </ul>	<ul style="list-style-type: none"> <li>• Designing a blueprint for a window by choosing a special quadrilateral, constructing it and analysing its uniqueness through an activity</li> </ul>		
4.3	<b>Visualising Solid Shapes</b> <ul style="list-style-type: none"> <li>• Views of 3-D Shapes</li> <li>• Maps</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying three different views of 3-D shapes</li> <li>• Defining a map and listing its key points</li> </ul>	<ul style="list-style-type: none"> <li>• Reading and interpreting maps to answer questions based on distances, locations, directions, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Drawing different views of 3-D shapes</li> <li>• Drawing a route map of few stations of a metro train through an activity</li> </ul>	The learner reads the given instructions, interprets it for drawing a blueprint of the map of a city, draws the map on a computer using MS paint, reads the maps drawn by

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	• Polyhedrons	• Defining and identifying (a) polyhedrons and its faces, edges and vertices (b) regular polyhedrons (c) convex polyhedrons (d) prisms (e) pyramids  • Giving examples of (a) polyhedrons and not polyhedrons (b) regular and irregular polyhedrons (c) convex and not convex polyhedrons • Differentiating amongst the different types of prisms and pyramids • Stating Euler's formula	• Drawing a conclusion while deriving Euler's formula through an activity • Verifying Euler's formula for various polyhedrons	• Drawing and labelling maps while choosing appropriate scale for it	others and finds out the best characteristics marked by them.
5.1	<b>Mensuration</b> • Area and Perimeter of Plane Figures	• Recalling formulae of area and perimeter of plane figures  • Deriving area of (a) trapezium	• Solving real-life problems by applying formulae of perimeter and area of plane figures  • Applying the concept of the area of trapezium,	• Showing procedural fluency and accuracy in calculations while finding the perimeter and area of plane figures	The learner builds the model of a cafeteria, analyses the given shapes, dimensions and number of each of the given items of the infrastructure to

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	• Surface Area  • Volume	(b) quadrilateral (c) rhombus (d) polygon  • Differentiating between total surface area and lateral surface area • Deriving total surface area and lateral surface area of a cube, a cuboid and a cylinder  • Differentiating between volume and capacity • Finding volume of cube, cuboid and cylinder	quadrilateral, rhombus and polygon to solve related problems • Drawing conclusions regarding area and perimeter of trapezium through an activity  • Solving real-life problems involving lateral and total surface areas of cube, cuboid and cylinder  • Solving real-life problems involving volume of cube, cuboid and cylinder • Drawing conclusions regarding volume and surface area of a cylinder through an activity	• Showing procedural fluency and accuracy in calculations while finding the surface area of cubes, cuboids and cylinders  • Showing procedural fluency and accuracy in calculations while finding the volume of cubes, cuboids and cylinders	estimate the area and volume of different items, finds the cost involved in fitting the floor tiles and painting the items in the cafeteria.
6.1	<b>Introduction to Graphs</b> • Types of Graphs	• Listing features and uses of (a) bar graph	• Interpreting different types of graphs to answer related	• Representing the given data graphically by making a suitable choice	The learner works in groups to collect specific type of

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		(b) double bar graph (c) pie graph (d) histogram (e) line graph (f) multiple line graph	questions • Collecting and organising data, choosing a suitable graph as per the data collected, giving reason for the choice of that graph and representing the data graphically through an activity		data, organises it, chooses a suitable graph to present it to other groups and asks them to interpret it.
	• Coordinate System	• Defining Cartesian system • Understanding the method of plotting ordered pairs on a graph		• Plotting ordered pairs on a graph to obtain a linear graph	
	• Linear Graph	• Defining a linear graph • Differentiating between line graphs and linear graphs • Identifying the coordinates of points in the Cartesian plane	• Applying the method of plotting ordered pairs and linear graph to solve related problems		
	• Applications		• Solving real-life problems involving linear graphs • Representing the given data graphically in the form of a linear graph and analysing the same	• Representing the relationship between quantity and cost of an item, time and distance, principal and interest with the help of a linear graph	

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			to answer related questions through an activity		
6.2	<b>Data Handling</b> • Organisation of Data	• Understanding the method of organising data in the form of a frequency distribution table and grouped frequency distribution table • Finding range of the data • Defining histogram	• Interpreting histograms to answer questions based on the same	• Handling numerical data • Organising and representing data while making grouped frequency distribution tables and different types of graphs	The learner prepares a questionnaire for conducting a survey among the students, represents the collected data graphically and draws inferences based on the answers of the given questions.
	• Types of Graphs	• Stating properties of a pie graph • Understanding the method of constructing a pie graph	• Applying the method of representing data by using different types of graphs through an activity	• Representing given data using different types of graphs, i.e., pictograph, bar graph, double bar graph, circle graph or pie graph	
	• Chance and Probability	• Defining terms associated with chance and probability • Finding probability of events	• Solving real-life problems involving probability of the occurrence of an event • Creating a spinner and drawing conclusions by applying the concept of probability through an activity		

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1.	<b>Crop Production and Management</b> <ul style="list-style-type: none"> <li>Cropping Pattern in India</li> <li>Agricultural Practices</li> </ul>	<ul style="list-style-type: none"> <li>Classifying different cropping patterns in India</li> <li>Identifying different crops as Kharif, Zaid and Rabi crops</li> <li>Enlisting the various agricultural practices and giving a brief outline about each of them</li> <li>Describing the agricultural implements used for ploughing and the techniques used for sowing</li> <li>Listing the various methods of soil replenishment</li> <li>Explaining the types and importance of manures</li> </ul>	<ul style="list-style-type: none"> <li>Giving reasons for loosening the soil</li> <li>Justifying the role of transplantation in crop production</li> <li>Correlating crop rotation with increased productivity of soil</li> <li>Comparing and contrasting manures and fertilisers</li> <li>Correlating                             <ul style="list-style-type: none"> <li>proper irrigation and crop yield</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Ideating about the suitable location and proper climatic conditions for good yield of the crops</li> <li>Applying the knowledge for making compost pile and suggesting few ways to make it more nutrient rich</li> <li>Analysing the real situation of food grain losses in India and suggesting few ways to prevent the same</li> <li>Surveying and evaluating the changes in agricultural practices during the last 50 years and making a colourful</li> </ul>	The learners conduct a research to record and analyse the effects of variations in conditions on the crop.

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Ch.No.	Topic	<b>Knowledge</b> <ul style="list-style-type: none"> <li>Retention</li> <li>Comprehension</li> <li>Identification</li> <li>Assimilation</li> </ul>	<b>Application</b> <ul style="list-style-type: none"> <li>Correlation</li> <li>Reasoning</li> <li>Problem solving</li> <li>Interpretation</li> </ul>	<b>Scientific Skills</b> <ul style="list-style-type: none"> <li>Graphical representation</li> <li>Analysis</li> <li>Prediction</li> <li>Ideation</li> </ul>	Explorer's Quest
	<ul style="list-style-type: none"> <li>Animal Husbandry</li> </ul>	<ul style="list-style-type: none"> <li>Describing and differentiating weedicides and pesticides</li> <li>Enumerating the traditional and modern harvesting methods</li> <li>Listing various ways of safe storage</li> <li>Defining animal husbandry and four of its types</li> <li>Explaining the applications of animal husbandry</li> </ul>	<ul style="list-style-type: none"> <li>sun drying and longer shelf life of grains</li> </ul>	<ul style="list-style-type: none"> <li>chart to represent the same</li> </ul>	
2.	<b>Microorganisms: Their Types</b> <ul style="list-style-type: none"> <li>Microorganisms</li> </ul>	<ul style="list-style-type: none"> <li>Describing the favourable conditions for the growth of microorganisms</li> <li>Listing major groups of microbes</li> <li>Describing few characteristics of each group</li> </ul>	<ul style="list-style-type: none"> <li>Justifying whether oxygen is essential for the survival of microorganisms</li> <li>Giving reason for considering viruses on the borderline between living and non-living</li> </ul>	<ul style="list-style-type: none"> <li>Drawing well-labelled diagrams of various microorganisms.</li> <li>Analysing the leavened moist bread for the growth of microbes over it and illustrating it by drawing a sketch</li> </ul>	The learners carry out yeast fermentation and analyse that gases produced as a result of fermentation are responsible for rise in dough

## S K I L L S

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3.	<b>Microorganisms: Friend and Foe</b> • Beneficial Microorganisms  • Harmful Microorganisms  • Food Prevention	• Distinguishing the beneficial activities of microorganisms on general, commercial and medicinal criteria • Describing the precautions while taking antibiotics  • Defining disease, pathogen and vector • Classifying common microbial diseases of humans, animals and plants • Listing few measures for disease prevention  • Explaining the need for food preservation • Listing different methods of food preservation giving examples of each	• Giving reason for rise in the idli batter when left overnight  • correlating the presence of disease and unhealthy surroundings • Explaining how vaccination helps to prevent diseases • Applying the concept of food spoilage and poisoning to arrive at solutions to real-life situations  • Suggesting the most appropriate method for milk storage during summer season	• Analysis of the ineffectiveness of antibiotics in common cold infections • Predicting the pattern of decomposition of grass in the presence and absence of soil microorganisms  • Analysing the effects of adding certain chemicals, heating, cooling and packaging on food preservation	The learners collect information regarding the outbreak, symptoms and prevention of two epidemic diseases – Swine flu and Dengue fever and represent it in the form of meaningful and colourful poster

## S K I L L S

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	• Nitrogen Cycle	• Defining nitrogen fixation and terms associated with it • Detailing the nitrogen cycle in nature	• Correlating nitrogen fixation with increased soil productivity	• Graphically representing the 'Nitrogen Cycle'	
4.	<b>Conservation of Plants and Animals</b> • Conservation: Why is It Important?  • Flora and Fauna  • Deforestation: Causes and Consequences  • Conservation of Forests and Wildlife	• Summarising the need for conservation of species.  • Defining the terms like species, biosphere, flora, fauna etc • Classifying species into different endangered categories  • Listing various causes and consequences of deforestation  • Defining and giving examples each of National parks,	• Correlating the wiping out of one species with decreased ecological stability of ecosystem  • Discussing the efforts of the people towards the betterment of species  • Correlating deforestation with occurrence of droughts, floods, soil erosion etc  • Explaining how reforestation contributes to the	• Analysing the exploitation of hill stations by human activities and researching the names of people protesting against it  • Exploring the areas affected by deforestation in India and ideating on possible ways to counter such situations  • Ideating about some possible ways for conservation of wildlife	The learner designs magazine content for developing awareness about conservation of endangered species



## S K I L L S

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		Sanctuaries and Biosphere Reserves • Explaining the importance of recycling of paper  • Listing few migratory birds • Explaining various factors responsible for bird migration	conservation of species • Giving reasons for keeping animals in protected areas • Justifying the necessity of wildlife trade monitoring	and suggesting ways to implement them  • Analysing reasons for less arrival of migratory birds in an area and suggesting ways of making birds to come back to that area	
5.	<b>Cell: Structure and Functions</b> • The Cell  • Components of the Cell	• Explaining the term cell and various discoveries associated with it  • Describing structure and function of various cell components including important cell organelles	• Visualising and correlating the concept of cell and its organelles with the help of a model • Justifying the selective permeability as the most important property of cell membrane	• Illustrating the internal scheme of organization of an individual with the help of Graphic Organiser  • Inquiring about the cell component whose modification will affect the cell most by providing suitable reason	The learners construct the detailed clay models of plant and animal cells to study the structure and functions of cell organelles

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	• Comparison between Animal and Plant Cells  • Types of Cells	• Differentiating plant and animal cells  • Differentiating between prokaryotic and eukaryotic cells Identifying different shapes of cells with relevant examples • Naming smallest and largest known cell	• Interpreting the observations through microscope by recalling the concept learnt to correctly identify the slides  • Correlating the shape and size of cells with the specific functions performed by them	• Drawing and labeling of the plant and animal cells	
6.	<b>Reproduction in Animals</b> • Role of Cell Division in Reproduction  • Types of Reproduction in Animals  • Asexual Reproduction	• Differentiating between mitosis and meiosis • Defining haploid and diploid cells  • Differentiating between sexual and asexual reproduction  • Summarising main points of various types of asexual reproduction	• Explaining why cell division is important during reproduction?  • Interpreting that bacteria take much lesser time to increase in number as compared to higher organisms  • Giving reasons why higher animals do not reproduce by asexual methods	• Representing diagrammatically mitosis and meiosis processes  • Representing diagrammatically fission and budding processes	The learners research and collect data about In vitro fertilisation (IVF), form a ethics committee and analyse the pros and cons of IVF process

## S K I L L S

Ch.No.	Topic	<b>Knowledge</b> ~ Retention ~ Comprehension ~ Identification ~ Assimilation	<b>Application</b> ~ Correlation ~ Reasoning ~ Problem solving ~ Interpretation	<b>Scientific Skills</b> ~ Graphical representation ~ Analysis ~ Prediction ~ Ideation	<b>Explorer's Quest</b>
	• Sexual Reproduction	• Defining male and female sex organs, fertilisation and metamorphosis • Differentiating between internal and external fertilization and giving examples of each • Explaining how the embryo develops after fertilisation in humans, birds and frogs • Describing the human reproductive system • Identifying slides related to the reproductive systems	• Giving reasons for the defined positions of testes and ovaries in humans • Giving reasons for the unequal production of male and female gametes by humans at a time	• Analysing pros and cons of cloning process and ideating on whether it should be carried out or banned  • Analysing if oviparity or viviparity is the more evolved method of reproduction • Drawing a sketch for metamorphosis of frog after observing its life cycle in laboratory • Drawing labelled diagrams of the male and female reproductive system.	<b>Explorer's Quest</b>
7.	<b>Reaching the Age of Adolescence</b> • Adolescence and Puberty	• Defining adolescence and puberty • Listing the changes taking place at puberty	• Giving reasons why changes in the body take place during adolescence		The learner prepares a short skit including the roles of counselor and

## S K I L L S

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	• Secondary Sexual Characters and Role of Hormones  • Reproductive Phase of Life in Humans  • Sex Determination of the Baby  • Hormones Other than Sex Hormones	• Defining and giving examples of secondary sexual characters  • Differentiate between menarche, menstruation and menopause  • Explaining that the sex chromosome received from the father is responsible for the sex of a child  • Listing the hormones secreted by endocrine glands and describing their functions	• Giving reasons for deeper voice of boys than girls  • Observing and interpreting the reasons for the appearance of puberty signs at different times in adolescents  • Giving reasons for occurrence of menstrual cycle  • Correlating the amount of hormones produced in the body to diseases like goitre and diabetes	• Analysing the role of hormones secreted by the pituitary gland and drawing a flow chart to explain it  • Graphically representing the menstrual cycle.  • Graphically representing the determination of sex of a baby.  • Analysing hyperthyroidism and evaluating the importance of taking iodised salt	endocrinologist , to express the changes taking place in the body during transformation of a child into an adult, and also analyses the ways to deal with those changes.

## S K I L L S

Ch.No.	Topic	Knowledge	Application	Scientific Skills	Explorer's Quest
		<ul style="list-style-type: none"> <li>↳ Retention</li> <li>↳ Comprehension</li> <li>↳ Identification</li> <li>↳ Assimilation</li> </ul>	<ul style="list-style-type: none"> <li>↳ Correlation</li> <li>↳ Reasoning</li> <li>↳ Problem solving</li> <li>↳ Interpretation</li> </ul>	<ul style="list-style-type: none"> <li>- Graphical representation</li> <li>- Analysis</li> <li>- Prediction</li> <li>- Ideation</li> </ul>	
	<ul style="list-style-type: none"> <li>• Role of Hormones in Completing the Life Cycle of Insects and Frogs</li> <li>• Adolescent Health</li> <li>• Awareness Section</li> </ul>	<ul style="list-style-type: none"> <li>• Describing the role of hormones in the life cycle of a frog and caterpillar</li> <li>• Explaining the importance of balanced diet, personal hygiene and exercise during adolescence</li> <li>• Describing harmful effects of use of drugs and adolescent pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>• Correlating the quantity of iodine present in water to metamorphosis of frog</li> <li>• Correlating the junk food with decreased health of an adolescent</li> <li>• Suggesting measures to discard myths and taboos prevalent in the society</li> </ul>	<ul style="list-style-type: none"> <li>• Framing interesting captions on AIDS, Drug addiction etc.</li> </ul>	

# Chemistry

## Class 8

## S K I L L S

Ch.No.	Topic	Knowledge	Application	Scientific Skills	Explorer's Quest
		<ul style="list-style-type: none"> <li>↳ Retention</li> <li>↳ Comprehension</li> <li>↳ Identification</li> <li>↳ Assimilation</li> </ul>	<ul style="list-style-type: none"> <li>↳ Correlation</li> <li>↳ Reasoning</li> <li>↳ Problem solving</li> <li>↳ Interpretation</li> </ul>	<ul style="list-style-type: none"> <li>↳ Graphical representation</li> <li>↳ Analysis</li> <li>↳ Prediction</li> <li>↳ Ideation</li> </ul>	
1.	<b>Polymers: Synthetic Fibres and Plastics</b> <ul style="list-style-type: none"> <li>• What are Polymers?</li> <li>• Synthetic Fibres</li> </ul>	<ul style="list-style-type: none"> <li>• Defining polymers, monomers and polymerisation</li> <li>• Classifying polymers on the basis of their structures</li> <li>• Giving a brief outline of different types of polymers</li> <li>• Giving a brief outline of the general process of production of synthetic fibres</li> <li>• Describing the composition, properties and uses of four synthetic fibres: Rayon, Nylon, Polyester and Acrylic</li> </ul>	<ul style="list-style-type: none"> <li>• Correlating the properties of different types of polymers with their end use</li> <li>• Correlating the properties of the four synthetic fibres with their uses</li> <li>• Giving reasons for the use of a particular synthetic fibre for a specific end use</li> </ul>	<ul style="list-style-type: none"> <li>• Providing a visual representation of different types of structural arrangement of monomers in polymers</li> <li>• Evaluating the importance of the four synthetic fibres discussed in the chapter in our lives and predicting the likely consequences if they do not exist anymore ?</li> </ul>	<p>The learner conducts some simple tests to judge the suitability of three natural and synthetic fibres for certain uses</p>

## S K I L L S

Ch.No.	Topic	Knowledge ↳ Retention ↳ Comprehension ↳ Identification ↳ Assimilation	Application ↳ Correlation ↳ Reasoning ↳ Problem solving ↳ Interpretation	Scientific Skills ↳ Graphical representation ↳ Analysis ↳ Prediction ↳ Ideation	Explorer's Quest
	<ul style="list-style-type: none"> <li>Plastics</li> </ul>	<ul style="list-style-type: none"> <li>Classifying different types of plastics</li> <li>Describing the properties and uses of plastics</li> <li>Differentiating between biodegradable and non-biodegradable materials</li> <li>Understanding the causes and effects of environmental pollution caused by plastics</li> <li>Understanding the 4-R principle and describing the ways to reduce environmental pollution caused by plastics</li> </ul>	<ul style="list-style-type: none"> <li>Correlating the properties of plastics with their uses</li> <li>Suggesting some ways to prevent the environment from the pollution caused by plastics</li> </ul>	<ul style="list-style-type: none"> <li>"Comparing and contrasting the properties of the four synthetic fibres discussed in the chapter</li> <li>Stating the advantages and disadvantages of synthetic fibres</li> <li>Thinking about some possible ways to reduce the environmental pollution caused by plastics</li> </ul>	

## S K I L L S

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2.	<p><b>Metals, Non-metals and Metalloids</b></p> <ul style="list-style-type: none"> <li>Physical Properties of Metals and Non-metals</li> <li>Chemical Properties of Metals and Non-metals</li> <li>Uses of Metals and Non-metals</li> </ul>	<ul style="list-style-type: none"> <li>Describing the general physical properties of metals and non-metals with exceptions</li> <li>Comparing the physical properties of metals and non-metals</li> <li>Understanding the general chemical properties of metals and non-metals</li> <li>Writing the correct chemical equations to explain the chemical properties of metals and non-metals</li> <li>Comparing the chemical properties of metals and non-metals</li> <li>Stating the general uses of metals and non-metals</li> <li>Stating the uses of some</li> </ul>	<ul style="list-style-type: none"> <li>Correlating the properties of metals and non-metals with their uses</li> <li>Arranging the metals and non-metals in groups based on their reactivity towards different substances</li> <li>Applying the knowledge about the properties of metals and non-metals to judge the suitability of</li> </ul>	<ul style="list-style-type: none"> <li>Judging the suitability of different metals and non-metals for distinct uses</li> <li>Predicting the outcomes of certain chemical reactions of metals and non-metals</li> <li>Predicting the outcomes of displacement reactions of metals</li> <li>Analysing the domestic and commercial importance of metals and non-metals</li> </ul>	<p>The learner conducts some simple physical and chemical tests to observe certain properties of six metal salts</p>

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		specific metals and non-metals	different metals and non-metals for distinct uses		
	• Metalloids	<ul style="list-style-type: none"> <li>Defining metalloids and semiconductors</li> <li>Stating the uses of integrated circuits, which, in turn are made from semiconductors</li> </ul>	<ul style="list-style-type: none"> <li>Analysing the commercial importance of metalloids</li> </ul>		
3.	<b>Coal, Petroleum and Natural Gas</b>				
	• Exhaustible and inexhaustible natural resources	<ul style="list-style-type: none"> <li>Defining exhaustible and inexhaustible natural resources along with some examples</li> <li>Understanding the differences between exhaustible and inexhaustible natural resources</li> </ul>	<ul style="list-style-type: none"> <li>Justifying why exhaustible natural resources should be used thoughtfully</li> </ul>		The learner creates a MS PowerPoint presentation on the environmental and health hazards caused by burning of fossil fuels
	• Fossil Fuels	<ul style="list-style-type: none"> <li>Defining fossil fuels</li> <li>Describing the process of formation of fossil fuels</li> </ul>	<ul style="list-style-type: none"> <li>Establishing a relation between the usage of fossil fuels and growth of</li> </ul>	<ul style="list-style-type: none"> <li>Analysing the industrial importance of fossil fuels</li> <li>Predicting the outcomes</li> </ul>	

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	• Coal	<ul style="list-style-type: none"> <li>Describing the significance of fossil fuels</li> <li>Defining carbonisation and describing the process of formation of coal</li> <li>Defining coal mining and briefly describing two ways of coal mining</li> <li>Listing the properties and uses of coal</li> <li>Explaining the commercial importance of coal</li> <li>Describing the properties and uses of coke, coal-tar and coal gas</li> </ul>	industrial, power and transportation sector	<ul style="list-style-type: none"> <li>of complete vanishing of fossil fuels from the earth</li> <li>Evaluating the usefulness of coal?</li> </ul>	
	• Petroleum	<ul style="list-style-type: none"> <li>Describing the process of formation of petroleum</li> <li>Listing the properties of petroleum</li> </ul>	<ul style="list-style-type: none"> <li>Comparing and contrasting compressed natural gas with fuels like petrol and diesel</li> </ul>	<ul style="list-style-type: none"> <li>Illustrating the reserves of petroleum and natural gas</li> <li>Drawing a sketch of the process of fractional distillation of petroleum</li> </ul>	

## S K I L L S

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		<ul style="list-style-type: none"> <li>Understanding the process of refining of petroleum</li> <li>Stating the uses of the products obtained by refining of petroleum</li> <li>Explaining the commercial importance of petroleum</li> </ul>			
	Natural Gas	<ul style="list-style-type: none"> <li>Describing the process of formation of natural gas</li> <li>Listing the properties of natural gas</li> </ul>		<ul style="list-style-type: none"> <li>Evaluating the usefulness of compressed natural gas</li> </ul>	
	Petrochemicals	<ul style="list-style-type: none"> <li>Defining petrochemicals and describing their uses</li> <li>Explaining the commercial importance of petrochemicals</li> </ul>		<ul style="list-style-type: none"> <li>Evaluating the usefulness of petrochemicals</li> </ul>	
	Conservation of Fossil Fuels	<ul style="list-style-type: none"> <li>Understanding the importance of conserving the fossil fuels</li> <li>Describing the ways by which fossil fuels can be conserved</li> </ul>	<ul style="list-style-type: none"> <li>Suggesting measures to reduce the excessive consumption of fossil fuels</li> </ul>	<ul style="list-style-type: none"> <li>Evaluating the importance of fossil fuels and predicting the likely consequences if they vanish from the Earth</li> </ul>	

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		<ul style="list-style-type: none"> <li>State the threats of using fossil fuels excessively and the benefits of using fossil fuels judiciously</li> </ul>			
4.	<b>Combustion and Flame</b>  • Combustion and Inflammable Substances	<ul style="list-style-type: none"> <li>Defining combustible substances, ignition temperature and inflammable substances</li> <li>Stating the conditions necessary for combustion</li> <li>Describing the process of burning of a matchstick</li> </ul>	<ul style="list-style-type: none"> <li>Establishing a relation between the ignition temperature and combustibility of a substance</li> </ul>		The learner analyses the fire prevention and firefighting systems of their school building
	• Types of Combustion	<ul style="list-style-type: none"> <li>Defining complete combustion and incomplete combustion</li> <li>Differentiating between complete combustion and incomplete combustion</li> <li>Comparing and contrasting the four</li> </ul>		<ul style="list-style-type: none"> <li>Analysing the finer differences between the nature of the four types of combustions discussed in the chapter</li> </ul>	

## S K I L L S

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		different type of combustion • Describing different types of combustion: Rapid combustion, spontaneous combustion, explosion and smoldering with examples			
	• Fire and Control of Fire	• Listing the essential conditions for occurrence of fires • Describing the process of dousing of fire • Describing the roles of water and carbon dioxide as fire extinguishers	• Comparing and contrasting the roles of water and carbon dioxide as fire extinguishers	• Exploring different fire extinguishers and sorting out that which fire extinguisher should be used depending on the cause of fire	
	• Flame	• Defining flame • Describing the characteristic features of the three distinct zones of a candle flame	• Arranging the three distinct zones of a candle flame in the increasing or decreasing order of their hotness	• Illustrating the candle flame with proper labeling	
	• Fuels: An Overview	• Describing the characteristic features of a good fuel	• Justifying why no fuel can be considered as an ideal fuel	• Analysing the negative effects of burning of fuels on our	

## S K I L L S

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		• Defining calorific value • Describing the harmful effects of burning of fuels	• Correlating the location of industries with factors of production	environment and general health of living beings	
5.	<b>Pollution of Air and Water</b> • Air Pollution	• Defining air pollution and air pollutants • Naming some air pollutants • Listing the causes of air pollution • Stating the effects of air pollution • Describing how air pollution has resulted in marble cancer of the Taj Mahal • Describing the greenhouse effect • Explaining global warming • Stating the ways of preventing air pollution	• Establishing a relation between the causes and effects of air pollution • Explaining how greenhouse effect leads to global warming • Relating the causes of global warming with its effects	• Illustrating the greenhouse effect with proper labeling • Predicting the deadly consequences of air pollution if it is not checked presently	The learner tests for the presence of harmful metals in samples of water collected from different sources

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	• Water Pollution	• Defining water pollution • Classifying water pollutants • Listing the causes of water pollution • Stating the effects of water pollution • Describing how air pollution has resulted in pollution of the river Ganga • Defining potable water and briefly describing the functioning of water treatment plants • Describe the methods of purification of water: Filtration, boiling and chlorination	• Establishing a relation between the causes and effects of water pollution • Choosing the most appropriate method of purification of water depending on the nature of the impurities present in it	• Predicting the deadly consequences of water pollution if it is not checked presently	

# Physics

# Class 8

Ch.No.	Topic	<b>Knowledge</b> ↳ Retention ↳ Comprehension ↳ Identification ↳ Assimilation	<b>Application</b> ↳ Correlation ↳ Reasoning ↳ Problem solving ↳ Interpretation	<b>Scientific Skills</b> ↳ Graphical representation ↳ Analysis ↳ Prediction ↳ Ideation	Explorer's Quest
1.	<b>Force and Pressure</b> • Force  • Pressure	• Defining Force • Differentiating between push and pull • Identifying the cases when forces are added or subtracted • Classifying contact forces and non-contact forces	• Correlating change in the state of rest of motion of an object with the force applied on it • Correlating the change in the shape of an object with the force applied on it • Correlating the speed and direction of force • Interpreting the addition or subtracting the forces in the different cases through an activity	• Analysing the effects of force on an object.  • Evaluating the importance of the atmospheric pressure in our lives and predicting the likely consequences if it does not exist	Learner demonstrates the impact of atmospheric pressure using a soft drink can and observes and interprets the results scientifically



## S K I L L S

Ch.No.	Topic	<b>Knowledge</b> ↳ Retention ↳ Comprehension ↳ Identification ↳ Assimilation	<b>Application</b> ↳ Correlation ↳ Reasoning ↳ Problem solving ↳ Interpretation	<b>Scientific Skills</b> ↳ Graphical representation ↳ Analysis ↳ Prediction ↳ Ideation	<b>Explorer's Quest</b>
2.	<b>Friction</b> • Force of Friction  • Types of Friction  • Fluid Friction	• Comprehending the concept of atmospheric pressure  • Describing the force of friction • Understanding what causes friction • Describing the significance of friction • Explaining the disadvantages of friction with examples  • Classifying static, sliding and rolling friction  • Defining fluid friction	• Solving real life problems based on the application of atmospheric pressure  • Correlating the factors on which friction depends • Correlating the factors on which friction does not depend • Reasoning why lubricants reduce the friction • Activity to interpreting how ball bearings reduce friction • Explanation of the ways to increase and reduce friction  • Explaining the factors on which the fluid friction depends	• Analysing through an activity how does the pressure varies with area and force  • Analysing the action of lubricants  • Activity to analyse that rolling friction is lesser than sliding friction through an experiment  • Graphically representing the streamlined shapes	The learner demonstrates that the static friction is greater than sliding friction and confirms that the friction of a body depends on its weight

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3.	<b>Sound</b> • Vibration  • Amplitude, Time Period and Frequency of a Vibration  • Noise and Music	• Explaining that sound is produced by a Vibrating body • Describing the mechanism of production of sound in human • Describing the mechanism by which we hear sound through our ears  • Defining the terms Amplitude, Time Period, Frequency, Loudness, Pitch • Describing audible and inaudible sound	• Reasoning why sound travels faster through solids rather than liquid or gases  • Correlating between amplitude and loudness of sound and between pitch and frequency  • Solving real life problem of noise pollution	• Performing an activity to demonstrate that sound is produced by vibrations  • Performing an activity to analyse how the sound notes are produced	The learner makes a model of a guitar and learns about the relation between vibrations and musical sounds

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		Knowledge	Application	Scientific Skills	
4.	<b>Chemical Effects of Electric Current</b> <ul style="list-style-type: none"> <li>Do Liquids Conduct Electricity?</li> <li>Good/Poor Conducting Liquids</li> <li>Chemical Effects of Electric Current</li> <li>Electroplating</li> </ul>	<ul style="list-style-type: none"> <li>Retention</li> <li>Comprehension</li> <li>Identification</li> <li>Assimilation</li> </ul> <ul style="list-style-type: none"> <li>Conducting an activity to verify whether liquids conduct electricity or not</li> <li>Classifying the liquids as good and poor conducting liquids</li> <li>Identifying the changes that take place during the flow of current in a conducting liquid</li> <li>Defining the process of electroplating</li> <li>Classifying the metal used for electroplating</li> <li>Explanation for the need of electroplating</li> </ul>	<ul style="list-style-type: none"> <li>Correlation</li> <li>Reasoning</li> <li>Problem solving</li> <li>Interpretation</li> </ul> <ul style="list-style-type: none"> <li>Reasoning why some liquids conduct electricity</li> <li>Performing an activity to correlate the conductivity of a liquid and the salt present in it.</li> <li>Reasoning why short circuit fires must not be doused with water</li> <li>Interpreting the changes that take place electroplating through an activity</li> </ul>	<ul style="list-style-type: none"> <li>Graphical representation</li> <li>Analysis</li> <li>Prediction</li> <li>Ideation</li> </ul> <ul style="list-style-type: none"> <li>Graphical representation of the circuit</li> <li>Ideation for the fuels in the future on the basis of electrolysis.</li> <li>Analysing the process of electrolysis</li> </ul>	<p>The learner prepares a comprehensive report on the changes that take place during the charging and discharging of a rechargeable battery</p>

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		<ul style="list-style-type: none"> <li>Retention</li> <li>Comprehension</li> <li>Identification</li> <li>Assimilation</li> </ul> <ul style="list-style-type: none"> <li>Describing the application of electroplating</li> </ul>	<ul style="list-style-type: none"> <li>Correlation</li> <li>Reasoning</li> <li>Problem solving</li> <li>Interpretation</li> </ul>	<ul style="list-style-type: none"> <li>Graphical representation</li> <li>Analysis</li> <li>Prediction</li> <li>Ideation</li> </ul>	
5.	<b>Some Natural Phenomena</b> <ul style="list-style-type: none"> <li>Charges</li> <li>Lightning</li> </ul>	<ul style="list-style-type: none"> <li>Explaining that charges develop the to rubbing</li> <li>Explaining that charged bodies attract or repel each other</li> <li>Understanding different types of charges and their interaction</li> <li>Describing the working of simple electroscope</li> <li>Explaining the significance of earthing</li> <li>Describing the process of lightning and the steps involved in it.</li> <li>Describing the indoor and outdoor measures to be taken during lightning</li> <li>Describing the lightning conductor</li> </ul>	<ul style="list-style-type: none"> <li>Reasoning why does the hair stands up when we take off the cap</li> <li>Understanding the process of earthing through working of electroscope</li> <li>Practically demonstrating the steps to be taken when caught out doors during the lightning.</li> <li>Reasoning how lightning conductors keep the building safe during lightning</li> </ul>	<ul style="list-style-type: none"> <li>Analysing the working of simple electroscope</li> </ul>	<p>The learner designs and makes a working model of a seismograph and interprets its reading scientifically</p>

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	• Earthquake	<ul style="list-style-type: none"> <li>• Explaining what is an earthquake</li> <li>• Describing the Richter scale, Fault zones, Seismograph</li> <li>• Identifying and making the various earthquake zones on an outline map of India</li> <li>• Describing the steps taken during an earthquake</li> </ul>	<ul style="list-style-type: none"> <li>• Explaining the causes of an earthquake.</li> <li>• Correlating the movement of tectonic plates and earthquake</li> </ul>	<ul style="list-style-type: none"> <li>• Analysing the various causes of earthquake.</li> </ul>	
6.	<b>Light</b> • Reflection of Light	<ul style="list-style-type: none"> <li>• Defining the reflection of light</li> <li>• Defining the terms: incident ray, reflected ray, normal, angle of incidence, angle of reflection</li> <li>• Stating the laws governing reflection of light</li> <li>• Describing the properties of image formed</li> </ul>	<ul style="list-style-type: none"> <li>• Conducting an activity to verify the laws of reflection</li> <li>• Correlating between the angle between the two plane mirror and the number of images formed</li> <li>• Understanding the working principle of kaleidoscope</li> <li>• Solving real life problems using</li> </ul>	<ul style="list-style-type: none"> <li>• Making a labelled diagram to show reflection of light</li> <li>• Analysing how the image is formed</li> <li>• Making a labelled diagram of the working of periscope</li> </ul>	The learner conducts an online color blindness test on his/her class mates and correlates information collected with the data compiled through an actual sample group

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	• Dispersion of Light	<ul style="list-style-type: none"> <li>• Differentiating between regular and diffused reflection</li> <li>• Describing the phenomena of multiple reflection</li> <li>• Description of how to make a kaleidoscope</li> <li>• Describing the uses of kaleidoscope</li> </ul>	principles of periscope  <ul style="list-style-type: none"> <li>• Correlating the formation of rainbow with dispersion of light</li> <li>• Conducting an activity to form an artificial rainbow</li> </ul>	<ul style="list-style-type: none"> <li>• Analysing how a rainbow is formed</li> </ul>	
	• The Human Eye	<ul style="list-style-type: none"> <li>• Describing application of the different part of human eye</li> <li>• Explanation of the important concept related to human eye and vision</li> <li>• Describing the disorders (Myopia, Hypermetropia,</li> </ul>		<ul style="list-style-type: none"> <li>• Analysing the persistence of vision by making a flipbook</li> </ul>	

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	• Visual Impairment	• Cataract) related to human eye • Describing how to take care of eyes • Defining visually challenged person • Explaining Braille code system • Describing various optical and non optical aids for visually challenged persons			
7.	<b>Starts and the Solar System</b> • The Moon  • The Stars	• Describing the Moon and its surface  • Describing the distance of the stars from earth • Describing the constellation (Ursa Major, Ursa Minor,	• Explaining the different phases of Moon  • Reasoning why the pole stars appears stationary • Reasoning why Sun and other stars appear to move from west to east	• Representing the different phases of moon graphically  • Representing different constellations graphically • Locating Ursa Major in the sky	The learner prepares a report on the application of GPS system and draws inferences through Internet research

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	• The Solar System	Orion, Cassiopeia, Scorpis) • Describing the Sun • Explaining the different properties of all eight planets • Describing the other members of the solar system such as asteroids, meteors, comets • Classifying between natural and artificial satellite • Describing the applications of artificial satellite	• Reasoning why Pluto is no more a planet • Explaining the factors the factors that make life possible on Earth	• Calculating the body weight on the different planets	

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1.	<b>East India Company: Arrival, Change in Nature and Rule</b> <ul style="list-style-type: none"> <li>• Trade and Politics</li> <li>• Company Eyes Bengal</li> </ul>	<ul style="list-style-type: none"> <li>• Enlisting the acquired information of different European trading companies and their operational strategy</li> <li>• Identifying the weaknesses of the Indian rulers</li> <li>• Identifying the causes of cold relations between the Nawab and East India Company</li> <li>• Identifying and enlisting the repercussions the province of Bengal faced under the aggressive</li> </ul>	<ul style="list-style-type: none"> <li>• Inferring the importance of trading posts in Indo-European trade relations</li> <li>• Correlating the balance of power between the trading posts and Indian powers with the price rise in spice market</li> <li>• Reasoning the downfall of Mughal power and the rise of powerful Zamindars</li> <li>• Inferring the declarations of the East India Company and how it rose itself to the position of Nawab</li> </ul>	<ul style="list-style-type: none"> <li>• Creating awareness about the events which took place between East India Company and the Nawab of Bengal</li> </ul>	The learners form groups of four to research about Boer war and prepare an MS PPT for the rest of the learners

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2.	<b>Beginning of Company Rule in India</b> <ul style="list-style-type: none"> <li>• Company Controls Empire</li> <li>• Further Conquests</li> <li>• Other Spheres of Administration</li> <li>• The Rural Churnings</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying the eco-political conditions of the province of Bengal under the Company rule</li> <li>• Enlisting the acquisition policies of the government</li> <li>• Understanding how the Company indirectly controlled the territories under Indian rulers</li> <li>• Identifying the four main food crop and cash crop exports from India to Europe</li> <li>• Enlisting the effects of forced Indigo cultivation on rural cultivators</li> </ul>	<ul style="list-style-type: none"> <li>• Reasoning the placement of Residences in various regional courts by East India Company</li> <li>• Reasoning the use of Subsidiary Alliance by the East India Company</li> <li>• Inferring the need of the East India Company to impose a uniform law irrespective of religious background</li> </ul>	<ul style="list-style-type: none"> <li>• Creating awareness about the changing territorial control of the East India Company on an 18th century map of India</li> <li>• Imagining the consequences if East India Company had no interest in rural cultivation</li> </ul>	Learners prepare a play displaying the contemporary conditions of Indian cultivators in comparison to the cultivators of 1800s

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3.	<b>Experiments and Expansion under the Company Rule</b> • Company's Revenue Systems  • Acquisition Policies  • Military Administration  • Tribal Societies	• Assimilating information about the different revenue collecting policies of the Company  • Identifying the conditions of NWFP and its control by East India Company  • Assimilating information about the experiments conducted under East India Company to procure as much revenue as possible  • Enlisting the regional kingdoms affected by the Doctrine of lapse	• Correlating the annexation policies adopted by the East India Company towards different regional kingdoms of India which were under local rulers  • Inferring the motives of East India Company behind conquering the NWFP  • Inferring the stronghold of Raja Ranjit Singh on Punjab and the defense ability of Punjab	• Presenting graphically the territory of NWFP on a map of present day India • Graphically representing the territory of Awadh on a present day map of India  • Creating awareness about the adverse affects of forest laws on	Learners research about the 'Great Game', its participants and other details about the historical event

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		• Identifying the military set up of East India Company		the traditional belief system of the tribes occupying the present day Chota-Nagpur area	
4.	<b>Revolt of 1857: Rising against the Raj</b> • Society and Company  • The Revolt of 1857	• Identifying the export-import relations in the mid-19th century between India and Britain • Identifying and classifying the East India Company laws which affected the social fabric of India  • Enlisting the incidents of Revolt of 1857 and the resultant legal changes	• Evaluating the inter-related causes for the rise of Sepoys and peasants against the East India Company policies  • Inferring the causes behind the emergence of leadership of Revolt of 1857 from social segments which had previously not shown leadership abilities	• Ideating the conditions of the trading community in India due to the East India Company policies • Graphically identifying the geographical region of Burma on a map of Asia  • Graphically representing information in a flow chart where the aftereffects of the revolt are highlighted	Learners create a map of India with highlights on the cultural aspects of different regions

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5.	<b>Towards National Integration-I</b> • Textile  • Metal Industry  • Education	• Identifying the relevance of textile industry during mid-nineteenth century  • Retaining information on the changes brought about by the colonial imposition on the prevalent system of education  • Enlisting features of the changed education system under the imposed rule of Woods Despatch	• Correlating the decline in furnace and local iron implement manufacturing with the imposition of law by colonial government  • Reasoning the support Indian knowledge streams received from British Orientalists • Correlating the multiple changes that occurred under the Woods Despatch against the previously prevalent system	• Creating awareness about the difficulties faced by iron smelters under colonial rule in regional markets  • Generating opinions from learners about the possible reactions from the teachers of traditional education system under Orientalists • Creating awareness about the effect of Woods Despatch on the individual students of a village Pathshala	Learners practice changing different dialects of English into modern day usage for better understanding

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6.	<b>Towards National Integration-II</b> • Reform Movements  • Caste Inequalities	• Comprehending the details of Sati and why it was banned • Enlisting the means of communication which spread awareness regarding the spheres in which reforms are needed • Retaining information on reformers whose contribution was especially important to womens' education  • Enlisting the prominent leaders who led movements against social inequality on the basis of castes	• Reasoning the reliance on religious scriptures by reformers for legitimacy • Inferring the causes for the rise in reform movements in the mid-nineteenth century India • Reasoning the social conditions which lead to the restrictions on girl's education  • Reasoning the support Aryan Theory received from a leader like Jyotiba Phule	• Creating awareness about the existence of social practices like Sati and polygamy • Creating awareness about the possible topics on which a 19th century girl should have been educated • Creating awareness and encouraging the learners to support a 19th century social cause  • Creating awareness about the reform movements among the Parsis and Sikhs	Learners discover vacations through which rural widows could be supported and made financially independent
7.	<b>Indian National Movement-I</b> • Young Bengal Movement	• Comprehending the rise of educated Indians into national politics	• Correlating between the migration of certain communities outside India and the social condition which forced	• Creating awareness about the Vandemataram Movement among the communities which	Learners create an MS PPT on the importance of supporting manufactures and

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	<ul style="list-style-type: none"> <li>Reforms and Nationalism</li> <li>Indian National Congress</li> <li>India and the First World War</li> </ul>	<ul style="list-style-type: none"> <li>Enlisting the various colonial laws which restricted the spread of nationalist enthusiasm across all sections of society</li> <li>Identifying the founders of Indian National Congress</li> <li>Identifying the Congress functioning and the affects of First World War on India</li> </ul>	<ul style="list-style-type: none"> <li>Reasoning the effects of Ilbert Bill controversy</li> <li>Inferring how the nationalist leaders reacted at the decision of partition</li> <li>Inferring the impact and contribution of Swadeshi Movement among the rising Indian nationalist trend</li> </ul>	<ul style="list-style-type: none"> <li>were not directly affected by the partition of 1903</li> <li>Ideating the possible difficulties faced by the masses during the shortage of commodities while India was forcibly involved in the First World War</li> </ul>	products of Indian origin, especially Herbal products
8.	<b>Indian National Movement-II</b> <ul style="list-style-type: none"> <li>Mohandas Karamchand Gandhi</li> </ul>	<ul style="list-style-type: none"> <li>Understanding the related information of mass national</li> </ul>	<ul style="list-style-type: none"> <li>Reasoning the agitation against Simon Commission by the</li> </ul>		Learners formulate policies which will benefit the

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	<ul style="list-style-type: none"> <li>Non-Cooperation and Khilafat Movement</li> <li>Dandi March and Civil Disobedience Movement</li> <li>Subhash Chandra Bose</li> </ul>	<ul style="list-style-type: none"> <li>Retaining the details of Non-Cooperation Movement and the events leading to the Salt Act</li> <li>Comprehending the four aspects of Government of India Act 1935</li> </ul>	<ul style="list-style-type: none"> <li>nationalist</li> <li>Evaluating the relevance of Khilafat Movement on the development of Indian nationalism</li> <li>Evaluating the unifying factors of the Dandi March and its impact on the Indian National Movement</li> <li>Reasoning the formation of an all India military body like the All India Forward Bloc</li> <li>Reasoning the shortcomings of All India Forward Bloc which resulted in its failure to defeat the colonial forces</li> </ul>	<ul style="list-style-type: none"> <li>Creating awareness about the constitution drafting community</li> </ul>	underprivileged of the society and enable them to earn a living



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9.	<b>Independent India</b> <ul style="list-style-type: none"> <li>• First Voice of Independent India</li> <li>• Birth of Independent India's Constitution</li> <li>• Separatist Tendencies and Regional Identities</li> <li>• Changing Economy of Independent India</li> <li>• Contemporary India</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying the events and speech of Nehru on the eve of Independence</li> <li>• Comprehending the main features of the Indian Constitution</li> <li>• Identifying the fields in which the Five-Year plans launched development</li> <li>• Retaining the details of different educational programs initiated by the government towards technology and management</li> </ul>	<ul style="list-style-type: none"> <li>• Correlating the linguistic communities with separatist movements across India</li> <li>• Reasoning the differences in the First Five-Year Plan with the later plans</li> <li>• Inferring the targets of the 11th Five-Year Plan and its scope in the contemporary development</li> <li>• Reasoning the areas where more progress could take place and areas where India is yet to meet the world standard</li> </ul>	<ul style="list-style-type: none"> <li>• Creating Awareness about the main languages spoken in different regions of India through a physical map</li> </ul>	Learners research by creating a questionnaire on the contemporary social issues which need attention and reform

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	<ul style="list-style-type: none"> <li>• Indian Foreign Policy</li> </ul>	<ul style="list-style-type: none"> <li>• Assessing the developments of India after 63 years of independence</li> <li>• Identifying the different aspects of Indian Foreign Policy and the nations it shares close ties with</li> </ul>		<ul style="list-style-type: none"> <li>• Creating awareness about India's foreign policy</li> </ul>	
10.	<b>The Making of Delhi</b> <ul style="list-style-type: none"> <li>• Formation of Capitals in Delhi</li> <li>• Revolt of 1857 and Delhi</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying the number of capitals established in Delhi before the establishment of New Delhi under colonial rule</li> <li>• Comprehending the position of Delhi before, during and after the revolt of 1857</li> </ul>	<ul style="list-style-type: none"> <li>• Reasoning the need for change in capital after the Revolt</li> <li>• Correlating the different Durbars held in Delhi by different Viceroys and the significance of these Durbars</li> </ul>	<ul style="list-style-type: none"> <li>• Imagining the lifestyle and conditions of masses under the rule of Mughals</li> <li>• Creating awareness about the Durbars held by Viceroys in Delhi and increasing British presence in Delhi</li> </ul>	Learner designs a new city to accommodate human population keeping their requirements in mind

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Ch.No.	Topic	<b>Knowledge</b> - Retention - Comprehension - Identification - Assimilation	<b>Application</b> - Correlation - Reasoning - Problem solving - Inference	<b>Social Science Skills</b> - Graphical representation - Awareness - Imagination - Image analysis	Explorer's Quest
	<ul style="list-style-type: none"> <li>Expansion of the Walled City</li> <li>Planning New Delhi</li> <li>Partition and Influx in Delhi</li> </ul>	<ul style="list-style-type: none"> <li>Identifying the need for expansion schemes like the Lahore Gate Improvement Scheme for the population of Delhi</li> </ul>	<ul style="list-style-type: none"> <li>Reasoning the need for establishment of New Delhi and its new regions</li> <li>Inferring the contemporary socio-political developments in New Delhi</li> <li>Assessing the effect of Partition on the infrastructure of New Delhi</li> </ul>	<ul style="list-style-type: none"> <li>officers</li> <li>Creating awareness about the works of colonial photographers and architects in India</li> <li>Creating awareness about the architectural styles used for building New Delhi by the British</li> </ul>	Explorer's Quest
11.	<b>A History of Art</b> <ul style="list-style-type: none"> <li>Introduction to Art</li> <li>Historical Events</li> </ul>	<ul style="list-style-type: none"> <li>Identifying the different categories of paintings</li> <li>Understanding the importance of historical paintings from the point of view of colonial officers and nationalists</li> </ul>	<ul style="list-style-type: none"> <li>Reasoning the depiction of Indian landscape in a certain way in Picturesque paintings</li> </ul>	<ul style="list-style-type: none"> <li>Creating awareness about the need for portrait paintings among the different sections of Indian nobility and British officers</li> </ul>	Learners create face paintings on each other to identify the challenges involved in the work of a handpainting artist

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	<ul style="list-style-type: none"> <li>Indian Art Forms</li> <li>Photography and Architecture</li> </ul>	<ul style="list-style-type: none"> <li>Understanding the Indian art forms developed under colonial rule based on patriotism</li> </ul>	<ul style="list-style-type: none"> <li>Inferring the different ideologies at work behind the development of art form under Kalighat artists, Raja Ravi Varma and Jamini Roy</li> </ul>	<ul style="list-style-type: none"> <li>Creating awareness about the works of colonial photographers and architects in India</li> </ul>	Explorer's Quest

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1.	<b>Constitution of India: An Introduction</b> <ul style="list-style-type: none"> <li>Understanding the Constitution</li> <li>Making the Constitution of India</li> <li>Key Features of the Constitution of India</li> </ul>	<ul style="list-style-type: none"> <li>Understanding the meaning and significance of the Constitution</li> <li>Comprehending the purpose of the Constitution</li> <li>Understanding the socio-political factors that influenced the structure of the Constitution</li> <li>Comprehending the important characteristics of the</li> </ul>	<ul style="list-style-type: none"> <li>Analysing the required conditions to form a constitution in a heterogeneous society</li> <li>Correlating the effects of colonial rule and other pre-existing conditions that contributed and influenced the making of the Constitution</li> <li>Discussing the aims of the Constituent Assembly</li> </ul>	<ul style="list-style-type: none"> <li>Creating awareness about the significance of rules in a day-to-day life through an activity</li> <li>Discussing the importance of the need for making a comprehensive constitution</li> <li>Representing graphically the making of the Constitution</li> <li>Expanding the idea of secularism on the importance of religious</li> </ul>	The learner delves into the making of the Constitution and analyses the structure of the Indian Constituent Assembly and the influence of constitutions of countries on the Indian Constitution by preparing an MS PowerPoint presentation.

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	<ul style="list-style-type: none"> <li>Constitution: A Living Document</li> </ul>	<ul style="list-style-type: none"> <li>Constitution of India</li> <li>Recognising the importance of fundamental rights in the Constitution</li> <li>Retaining the broad categories of guidelines mentioned under the directive principles of state policy</li> <li>Grasping the idea of an adapting, contemporary and reinventing constitution</li> </ul>	<ul style="list-style-type: none"> <li>Analysing the importance of the idea of mutual coexistence in a multi-religious society through an activity</li> <li>Explaining the multi-faceted concept of parliamentary form of government with the help of a pictorial representation</li> <li>Reasoning the need of the idea of amendments in the Constitution</li> </ul>		
2.	<b>Understanding Secularism</b> <ul style="list-style-type: none"> <li>Secularism</li> </ul>	<ul style="list-style-type: none"> <li>Understanding the concept of secularism</li> <li>Defining the term secular state</li> <li>Recognising the need for separation between religion and state</li> </ul>	<ul style="list-style-type: none"> <li>Analysing and justifying the need for the separation between religion and state</li> </ul>	<ul style="list-style-type: none"> <li>Expanding the idea of secularism and placing it into the realm of India Constitution</li> </ul>	The learner organises a discussion on a historically important incident and jots down similarities and dissimilarities in

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	<ul style="list-style-type: none"> <li>How Secularism Works in India</li> </ul>	<ul style="list-style-type: none"> <li>Assimilating different strategies through which secularism works in India</li> <li>Identifying the application of the idea of secularism in different countries</li> <li>Understanding the importance of religious harmony</li> </ul>	<ul style="list-style-type: none"> <li>Comparing the different ways of working of secularism in two different countries</li> <li>Inferring the need for religious harmony in society</li> </ul>	<ul style="list-style-type: none"> <li>Imagining about the application of the concept of secularism in two different countries and its following repercussions</li> <li>Creating awareness about an international issue of banning of religious symbols in educational institutions</li> </ul>	difference of opinions.
3.	<b>Parliament of India</b> <ul style="list-style-type: none"> <li>Parliamentary System</li> </ul>	<ul style="list-style-type: none"> <li>Understanding the composition, structure and nature of the Parliament of India</li> <li>Comprehending the composition and working of the Lok Sabha and formation of a government</li> <li>Recognising the role of the Speaker, Rajya Sabha, Lok Sabha and the President in being the part of Parliament</li> </ul>	<ul style="list-style-type: none"> <li>Enlisting the roles and responsibilities of the various key features of the Parliament and correlating it with the role of representatives played in strengthening the democratic structure</li> <li>Discussing the topic of 'should there be a minimum educational qualification for the representatives or not?'</li> </ul>	<ul style="list-style-type: none"> <li>Graphically representing the procedure of making a bill into an act</li> <li>Creating awareness by organising a mock parliamentary session on the idea of importance of the question hour session</li> <li>Creating awareness on the issue of women reservation in the Parliament</li> </ul>	The learner studies, discusses, collate and presents a comparative analysis of the past two Lok Sabha elections.

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	<ul style="list-style-type: none"> <li>Importance of Parliamentary Democracy</li> </ul>	<ul style="list-style-type: none"> <li>Understanding the journey of a Bill to an Act</li> <li>Understanding the concept of budget in the Parliament</li> <li>Comprehending the importance of the parliamentary democracy</li> </ul>	<ul style="list-style-type: none"> <li>Generalising and evaluating the presence of elected representatives in the houses of the Parliament</li> <li>Discussing the presence of people from different walks of life in the Parliament</li> </ul>		
4.	<b>Judiciary in India</b> <ul style="list-style-type: none"> <li>Judiciary</li> </ul>	<ul style="list-style-type: none"> <li>Defining the term judiciary</li> <li>Understanding the purpose of setting judiciary and its importance</li> <li>Understanding the need for an independent judiciary</li> </ul>	<ul style="list-style-type: none"> <li>Analysing the importance of judiciary</li> <li>Debating on the broad idea of preferential justice and analysing its importance in a society</li> </ul>	<ul style="list-style-type: none"> <li>Creating awareness about the role of judiciary in ensuring rights of the citizens</li> </ul>	The learner takes up PIL cases filed on environmental issues and writes an informative article on the same

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	Structure of Courts in India	<ul style="list-style-type: none"> <li>Enlisting the role of judiciary in India</li> <li>Understanding the importance of an integrated judicial system</li> <li>Classifying the roles and responsibilities of courts at different levels</li> </ul>	<ul style="list-style-type: none"> <li>Drawing conclusions on the basis of a case study to understand the distinct role played by judiciary in India</li> <li>Analysing the nature of work commissioned by judiciary apart from administering justice</li> <li>Discussing the role of the judiciary in ensuring the rights of citizens</li> </ul>	<ul style="list-style-type: none"> <li>Graphically representing the structure of the courts in India</li> <li>Creating awareness about the concept of PIL</li> </ul>	
5.	<b>Criminal Justice System of India</b>				
	<ul style="list-style-type: none"> <li>Role of the Police</li> <li>Role of the Public Prosecutor</li> </ul>	<ul style="list-style-type: none"> <li>Enlisting and understanding and the role and responsibilities of the police</li> <li>Classifying cases into civil and criminal</li> <li>Understanding the role of the public prosecutor in the criminal justice</li> </ul>	<ul style="list-style-type: none"> <li>Analysing the tasks performed by police in investigation of a crime</li> <li>Comprehending the role played by a public prosecutor during a trial</li> </ul>	<ul style="list-style-type: none"> <li>Creating awareness about the need for segregating cases into civil and criminal</li> <li>Creating awareness about the importance of an FIR in the criminal</li> </ul>	The learner collects information on cyber crime by using the internet as a primary source and writes an investigative report on it.

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	Role of the Judge	system  <ul style="list-style-type: none"> <li>Comprehending the role played by a judge during a trial</li> <li>Identifying the important steps to be followed during a fair trial</li> <li>Summarising the topic criminal justice system</li> </ul>	<ul style="list-style-type: none"> <li>and analysing its importance</li> <li>Evaluating the need for having new laws by conducting an activity</li> <li>Recognising and reasoning the significance of fair trial in a criminal justice system</li> </ul>	justice system <ul style="list-style-type: none"> <li>Improvising the existing rules and giving chance to promulgate new rules</li> <li>Creating awareness about the need for a having a fair trial system</li> </ul>	
6.	<b>Understanding and Confronting Marginalisation</b>				
	<ul style="list-style-type: none"> <li>Adivasis in India</li> </ul>	<ul style="list-style-type: none"> <li>Understanding the concept of marginalisation and its consequences on the marginalised sections of the society</li> </ul>	<ul style="list-style-type: none"> <li>Reasoning out the causes of marginalisation in different groups in India</li> <li>Generalising the marginalisation of a minority community by using statistical data</li> </ul>	<ul style="list-style-type: none"> <li>Sensitising and creating awareness about the different ways of lifestyle followed by Adivasis</li> <li>Graphically representing the process of marginalisation of the Adivasis</li> </ul>	The learner decides, collates information and draws cartoons on an issue of social relevance.

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	<ul style="list-style-type: none"> <li>Assertion of Dignity and Rights</li> </ul>	<ul style="list-style-type: none"> <li>Assimilating and understanding the role of art and literature in asserting the dignity and rights of the marginalised groups</li> <li>Explaining the role of government in eliminating inequalities among marginalised groups</li> </ul>	<ul style="list-style-type: none"> <li>Analysing the foundation on which marginalisation based on socio-economic factors stands</li> <li>Explaining the causes and effects of marginalisation of Adivasis due to industrialisation and development</li> <li>Correlating the causes and effects of industrialisation on the marginalisation of the Adivasis</li> <li>Correlating the importance of art and literature in asserting one's rights and dignity</li> <li>Examining the aims and analysing the importance of the philosophy behind the laws promulgated for the safeguarding of the marginalised</li> </ul>	<ul style="list-style-type: none"> <li>Showing the distribution of different types of major crops on the map of India and the world</li> <li>Using an art form to reflect the idea of importance of dignity and self-respect</li> </ul>	

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7.	<b>Economic Presence of the Government</b> <ul style="list-style-type: none"> <li>Public Facilities</li> </ul>	<ul style="list-style-type: none"> <li>Enlisting the laws made by government in removing inequalities among the marginalised groups</li> <li>Understanding the core concept of public facilities and explaining the role of government in providing them</li> <li>Understanding the role of private sector in collaboration with the government in providing public facilities</li> <li>Enlisting the laws made by the government to save environmental</li> </ul>	<ul style="list-style-type: none"> <li>Inferring the availability of public facilities in India by pictorial and statistical representation</li> <li>Enlisting the role of government in providing facilities and its analysing direct implication on the society through an activity</li> <li>Speculating and reasoning the contribution of labourers in safeguarding the environment</li> </ul>	<ul style="list-style-type: none"> <li>Creating awareness about the importance of public facilities and environmental issues</li> <li>Representing the role of government in providing public facilities through pictures</li> <li>Expanding the idea of 'save environment' by linking its effects with the conditions of workers</li> </ul>	The learner researches the current issues in environment and writes commentaries, post stories on a blog

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	• Ensuring Rights of Workers	• Understanding the role of government in ensuring the rights of workers • Enlisting the laws made by the government to protect labourers against different types of discriminations • Demonstrating the issue of child labour by presenting a case study	• Analysing the role of government in ensuring rights of labourers • Inferring the conditions of child labour with the help of a case study	• Representing graphically the role of government in ensuring the rights of the labourers • Sensitising by explaining the problem of child labour and encouraging learners to represent this idea pictorially	

# Geography

## Class 8

## S K I L L S

Ch.No.	Topic	<b>Knowledge</b> ↳ Retention ↳ Comprehension ↳ Identification ↳ Assimilation	<b>Application</b> ↳ Correlation ↳ Reasoning ↳ Problem solving ↳ Inference	<b>Social Science Skills</b> ↳ Graphical representation ↳ Awareness ↳ Imagination ↳ Image analysis	Explorer's Quest
1.	<b>Introduction to Resources</b> • Types of Resources  • Conservation of Resources	• Understanding the concept of resources and listing different types of resources • Distinguishing different types of natural resources • Classifying natural resources on the basis of origin, distribution, utility and renewability • Defining human resource and understanding how natural resources can be made useful by transforming them into human-made resources • Defining sustainable development	• Discussing the advantages and disadvantages of actual and potential resources through an activity • Analysing the real life situation through a case study and answering questions based on it	• Preparing a report on the processes involved in the creation of human-made resources through an activity  • Making a PowerPoint presentation on	The learner collects data on the number of incandescent lights in their school, analyses the data, makes calculations, draws conclusions and submits a report to the school principal on how to conserve energy.

## S K I L L S

Ch.No.	Topic	<b>Knowledge</b> <ul style="list-style-type: none"> <li>↳ Retention</li> <li>↳ Comprehension</li> <li>↳ Identification</li> <li>↳ Assimilation</li> </ul>	<b>Application</b> <ul style="list-style-type: none"> <li>↳ Correlation</li> <li>↳ Reasoning</li> <li>↳ Problem solving</li> <li>↳ Inference</li> </ul>	<b>Social Science Skills</b> <ul style="list-style-type: none"> <li>↳ Graphical representation</li> <li>↳ Awareness</li> <li>↳ Imagination</li> <li>↳ Image analysis</li> </ul>	Explorer's Quest
2.	<b>Land and Soil Resources</b> <ul style="list-style-type: none"> <li>• Land Resources</li> <li>• Soil Resources</li> </ul>	<ul style="list-style-type: none"> <li>• Enlisting ways to conserve natural resources</li> <li>• Enlisting the uses of land resources</li> <li>• Discussing the physical and human factors affecting land utilisation</li> <li>• Classifying land resources on the basis of ownership and sustainability in terms of agriculture</li> <li>• Defining soil profile</li> <li>• Enlisting and discussing the factors affecting soil formation</li> <li>• Enlisting the types of soil found in India</li> <li>• Explaining the characteristics of different soils found in India</li> </ul>	<ul style="list-style-type: none"> <li>• Analysing the land use pattern of India and the World through map and data</li> <li>• Explaining the reasons for the distribution of different types of soil in India</li> <li>• Evaluating the methods of soil conservation</li> </ul>	<ul style="list-style-type: none"> <li>conservation of natural resources</li> <li>• Creating awareness on problems related to land resources and methods for its conservation</li> <li>• Presenting graphically the types of soil found in India</li> </ul>	<p>The learner prepares a map of India showing the location and distribution of different types of soil in India.</p>

## S K I L L S

Ch.No.	Topic	<b>Knowledge</b> <ul style="list-style-type: none"> <li>↳ Retention</li> <li>↳ Comprehension</li> <li>↳ Identification</li> <li>↳ Assimilation</li> </ul>	<b>Application</b> <ul style="list-style-type: none"> <li>↳ Correlation</li> <li>↳ Reasoning</li> <li>↳ Problem solving</li> <li>↳ Inference</li> </ul>	<b>Social Science Skills</b> <ul style="list-style-type: none"> <li>↳ Graphical representation</li> <li>↳ Awareness</li> <li>↳ Imagination</li> <li>↳ Image analysis</li> </ul>	Explorer's Quest
3.	<b>Water Resources</b> <ul style="list-style-type: none"> <li>• Introduction to Water Resources</li> <li>• Multipurpose Projects</li> </ul>	<ul style="list-style-type: none"> <li>• Defining soil erosion</li> <li>• Distinguishing between erosion and weathering; sheet erosion and gully erosion</li> <li>• Discussing the factors affecting soil erosion and method of soil conservation</li> <li>• Identifying the uses of water resources</li> <li>• Classifying water resources</li> <li>• Discussing the distribution of water resources in India and the world</li> <li>• Defining freshwater and classifying the same</li> <li>• Defining multipurpose project</li> <li>• Enlisting the major multipurpose projects in India</li> </ul>	<ul style="list-style-type: none"> <li>• Analysing the real-life situation through a case study and answering questions based on it</li> <li>• Analysing and interpreting the distribution of water resources in different continents through an activity</li> <li>• Analysing the multipurpose projects by discussing their advantages and disadvantages</li> </ul>	<ul style="list-style-type: none"> <li>• Showing graphically the distribution of water resources in India and the world</li> </ul>	<p>The learner prepares a model to show surface water, underground water and water pollution.</p>



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	<ul style="list-style-type: none"> <li>Water Scarcity</li> <li>Conservation of Water Resources</li> </ul>	<ul style="list-style-type: none"> <li>Defining water pollution</li> <li>Classifying water pollution on the basis of its location and source</li> <li>Distinguishing between point and non-point water pollution; surface water and groundwater pollution</li> <li>Enlisting the methods of conservation of water resources</li> </ul>	<ul style="list-style-type: none"> <li>Analysing the effects of water pollution</li> <li>Practicing the method of drip irrigation through activity</li> <li>Analysing a real life situation through a case study and answering questions based on it</li> </ul>	<ul style="list-style-type: none"> <li>Creating awareness on the problem of water scarcity in the world</li> <li>Discussing the tips for saving water and importance of water conservation</li> </ul>	
4.	<b>Natural Vegetation and Wildlife Resources</b> <ul style="list-style-type: none"> <li>Natural Vegetation</li> </ul>	<ul style="list-style-type: none"> <li>Defining natural vegetation</li> <li>Classifying natural vegetation</li> </ul>		<ul style="list-style-type: none"> <li>Showing the distribution of natural vegetation in India through a map</li> </ul>	The learner prepares a collage from the slogan cutouts on the

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	<ul style="list-style-type: none"> <li>Wildlife Resources</li> </ul>	<ul style="list-style-type: none"> <li>Classifying forests as evergreen forest and deciduous forest; tropical and temperate evergreen and deciduous forest</li> <li>Enlisting the types of natural vegetation found in India and discussing their characteristics</li> <li>Enlisting and discussing the uses of natural vegetation</li> <li>Defining wildlife resources</li> <li>Enlisting the uses of wildlife resources</li> <li>Enlisting the endangered wildlife species in India</li> </ul>	<ul style="list-style-type: none"> <li>Evaluating the threats and the related measures taken towards the conservation of natural vegetation and wildlife resources</li> <li>Analysing the reasons for wildlife species of India getting endangered</li> <li>Analysing a real-life situation through a case study and answering questions based on it</li> </ul>	<ul style="list-style-type: none"> <li>Showing the distribution of wildlife resources in India including National Parks, Bird Sanctuaries and Tiger Projects through a map</li> <li>Creating awareness on conservation of wildlife and natural resources</li> </ul>	conservation of endangered species of wild animals found in India.

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5.	<b>Mineral and Power Resources</b> • Mineral Resources  • Power Resources	• Classifying the types of mineral resources • Enlisting and discussing the different methods of extraction of minerals • Enlisting the uses of mineral resources  • Defining conventional and non-conventional power resources • Enlisting the uses and location of conventional and non-conventional power resources	• Distinguishing between open cast mining and shaft mining  • Analysing the advantages and disadvantages of conventional and non-conventional energy resources • Analysing a real life situation through a case study and answering questions based on it	• Representing the different types of minerals graphically through an activity • Representing the distribution of minerals in India and the world on a map • Creating awareness on conservation of mineral resources	The learner prepares a PowerPoint presentation on oil exploration and coal mining/quarrying.

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6.	<b>Agriculture</b> • Farming System  • Types of Farming  • Major Crops	• Describing the process of farming system • Discussing factors affecting agriculture  • Classifying the types of farming and further sub-classifying subsistence and commercial farming • Describing shifting cultivation and nomadic herding • Discussing different types of commercial farming • Enlisting the location of various commercial crops in the world  • Enlisting the major crops of the world under different categories	• Analysing the essential requirements for the growth of different types of major crops	• Showing the distribution of different types of major crops on the map of India and the world	The learner prepares a report on the advantages and disadvantages of Genetically Modified (GM) crops.

## S K I L L S

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	• Agricultural Development	• Enlisting the location of different types of commercial and plantation crops in India and the world  • Describing agricultural development and its importance	• Correlating the farming system in developed countries with that of developing countries  • Analysing a real life situation through a case study and answering questions based on it	• Showing the distribution of major commercial and plantation crops on the map of India at the world  • Creating awareness on the status of agricultural practices in India	
7.	<b>Industries</b>  • Classification of Industries  • Factors Affecting Location of Industries	• Classifying industries on the basis of raw material, size and ownership along with examples	• Correlating the location of industries with factors of production		The learner designs textile prints for fabrics meant for formal and informal wears.

## S K I L L S

Ch.No.	Topic	<b>Knowledge</b> ↳ Retention ↳ Comprehension ↳ Identification ↳ Assimilation	<b>Application</b> ↳ Correlation ↳ Reasoning ↳ Problem solving ↳ Inference	<b>Social Science Skills</b> ↳ Graphical representation ↳ Awareness ↳ Imagination ↳ Image analysis	Explorer's Quest
	• Industrial Regions  • Industrial System  • Industrial Pollution	• Enlisting the major industrial regions of the world and India  • Enlisting the major industries and their location in the world  • Defining industrial system and discussing the same  • Describing how industries are responsible for four types of pollution	• Analysing the distribution of industrial regions around the world  • Analysing the industrial system through: a. Iron and steel industry b. Cotton and textile industry c. Information technology industry  • Comparing the industries in India with industries of a developed country  • Analysing a real life situation through a case study and answering questions based on it	• Showing the major industrial regions and industrial belts of the world on a map  • Showing the location of the major industrial regions on the map of India  • Showing the distribution of iron and steel industry, cotton and textile industry and IT industry on the map of India	

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8.	<b>Human Resources</b>				
	<ul style="list-style-type: none"> <li>• Distribution of Population</li> <li>• Density of Population</li> <li>• Factors Affecting Distribution of Population</li> <li>• Population Change</li> </ul>	<ul style="list-style-type: none"> <li>• Defining population</li> <li>• Comprehending the distribution of world's population using a pie diagram</li> <li>• Defining density of population</li> <li>• Enlisting the factors affecting the distribution of population</li> <li>• Defining population change and natural growth rate</li> <li>• Classifying the types of migration as emigration and immigration and distinguishing between the two</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluating the various geographical, socio-cultural and economic factors affecting the distribution of population</li> <li>• Analysing population explosion</li> </ul>	<ul style="list-style-type: none"> <li>• Showing the ten most populous countries of the world graphically</li> <li>• Showing the density of population around the world and in India through a map</li> <li>• Analysing the bar graph showing world population growth</li> </ul>	The learner prepares a population pyramid from a sample of data collected from neighbourhood.

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	<ul style="list-style-type: none"> <li>• Pattern of Population Change</li> <li>• Population Composition</li> </ul>	<ul style="list-style-type: none"> <li>• Defining population composition and population pyramid</li> <li>• Understanding the components of population structure</li> <li>• Classifying population into dependent and productive population</li> </ul>	<ul style="list-style-type: none"> <li>• Correlating the population composition of underdeveloped, developing and developed country with the help of a population pyramid</li> <li>• Analysing a real life situation through a case study and answering questions based on it</li> </ul>	<ul style="list-style-type: none"> <li>• Analysing the pattern of population change in the world through a map</li> <li>• Showing population composition through a population pyramid</li> </ul>	