SVKM J .V. Parekh International School
Long Term Plan
Academic Year 2019-20
GRADE- VII

ENGLISH

Strand/Topics	**Learning Objectives (CAIE expectations)**	**Learning Experiences/Engagements**
NON-FICTION Topic: Unit 1 Fire	Extract the main points and relevant information from a text using a range of passages. Making strategies such as skimming and scanning. Make relevant notes to select, collate and summarise ideas from texts. Explore the range of different ways writers use layout, form and presentation in a variety of texts. Explore the variety and range of ways in which the content of texts can be organised, structured and combined. Use features and onventions of a wide variety of text types in order to write to inform, explain, Describe, argue, persuade and comment. Practise note-taking using different styles for different purposes.	Exposure to word lists, comprehensions & genre specific vocabulary discussion Using the dictionary in order to find/ verify the meanings of unknown words: • **Contextual meaning of unknown words.** The students will be expected to use punctuations in their writing task through instructions for each task

FICTION Topic: Unit 3 Water (Reading, Listening and Writing)	Demonstrate understanding of features of narrative and non-narrative texts by explaining and developing the features in their own discussion and writing. Use inference and deduction to recognise implicit and inferred meanings. Identify and understand the main ideas, viewpoints, themes and purposes in a text. Support comments by quotation from more than one location in the text. Develop different ways of generating, organising and shaping ideas, using a range of planning formats or methods. Understand the conventions of standard English and how to use them consistently in writing. Write to express a personal viewpoint. Shape the overall organisation, sequence and presentation of a text to convey ideas clearly and effectively.	Based on the reading that the students will do, appropriate writing exercises will be provided to them after exposing them to appropriate strategies and the relevant rules for writing the various types of texts. For example: Short stories, fables, etc. Students will participate in class discussions in which they will listen to everyone's point of view and then make appropriate comments.
NON FICTION Topic: Unit 5 Other Lives FICTION	Use a range of reading strategies to find relevant information and main points in texts, distinguishing between fact and opinion where appropriate. Make relevant notes when researching different sources, comparing and contrasting information. Develop a consistent viewpoint in non-fiction writing by selecting from techniques and devices Used by known writers, and drawing on a range of evidence, opinions, information and purposes. • Learners to reflect on the narrative of an Informative text. • Learners to write a diary entry, using conventions and features keeping in mind the structural and linguistic features.	Students would adopt a different viewpoint and register and on precise description. Students would practice a formal letter, a job advertisement and a CV. They will also experience the different ways of framing sentences. • Learners share favourite extracts from Informative books. • Vote in groups for most effective extract. Points of tension highlighted are , then one learner from each

Topic : Unit 2 Games and Sports Reading, Writing and Listening)	**Learners to appreciate and celebrate the prose extract , to understand the** • Characterization • Character sketch • Expression and usage of vocabulary **Learners to read the poem to understand the** • Figure of Speech • Explicit meaning • Implicit meaning • Tone and structure	group reads aloud to the class, using appropriate intonation/pace. • Learners complete a grid, as below, on informative texts regarding typical features of setting, characters, plot, dialogue and mise en scène. • Orally, class collectively constructs a tense sequence – one sentence each – which stretches out narrative time, e.g. *I walked along the long, lonely road. It was dark. Very dark. Footsteps echoed …* • Learners write a weekend entry for a teenage diary, for example in the style of *Adrian Mole* by Sue Townsend. • In pairs, learners read a range of extracts from diaries/blogs, and sequence them in order of preference. For each extract, they comment on the author and what the diary entry is about, and highlight the most interesting part/sentence. • Learner can write a character sketch and evaluate the characters. • Learner can understand the different tones set in a poem.
NON FICTION Topic: Unit 6 The Race	Explain how specific choices and combinations of form, layout and presentation create particular effects. Demonstrate understanding of the effects created by features of diaries, magazines and newspaper reports. Demonstrate understanding of the main features, including the structure, of each genre and text type studied.	Write in a range of forms for a variety of purposes, including: **diary entries** (to inform, explain, review, comment or explore) **leaflets or newspaper reports** (to inform) **letters** (to persuade, entertain, narrate or comment)

FICTION Topic: Unit 4 The Feast (Reading, Listening And Writing)	The genre features of contemporary folk and fairy tales; narrative features of short stories; personal reading preferences/habits; book reviews highlighted. **Learners to read the poem to understand the** • Figure of Speech • Explicit meaning • Implicit meaning • Tone and structure **Learners to appreciate and celebrate the prose extract , to understand the** • Characterization • Character sketch • Expression and usage of vocabulary	**The learner is able to** • underline literal information and then predict what is going to happen next • highlight words/phrases in a fiction extract which are to do with behaviour, thoughts, senses • in a short fiction extract, underline words which show how a character speaks, moves, looks, then ask themselves what clues these give about the character • create a 'character line' of how a character changes throughout a text • create a mind map exploring the connotations of particular words, e.g. *white*, *green*, *peace*, and then in pairs compare mind maps • underline words in a poem understood, and in pairs compare what they have underlined • from the title of a story, predict what is going to happen next . • Learner can understand the different tones set in a poem. • Learner can write a character sketch and evaluate the characters .
NON FICTION FICTION Topic: Unit 4 Folk tale (Cont.) (Reading Listening Writing)	REVISION The genre features of fantasy, based on science and fiction; narrative features of short stories; is continued for discussion.	**The learner is able to** • underline literal information and then express what is going to happen next in a Folk tale. • highlight words/phrases in a fiction extract which are to do with behaviour, thoughts, senses • in a short fiction extract, underline words which show how a character speaks, moves, looks, then ask themselves what clues these give about the character

Revision		
NON FICTION Topic: Unit 7 Time and History	Extract the main points and relevant information from a text using a range of passages Making strategies such as skimming and scanning. Make relevant notes to select, collate and summarise ideas from texts. Explore the range of different ways writers use layout, form and presentation in a variety of texts. Explore the variety and range of ways in which the content of texts can be organised, structured and combined. Use features and conventions of a wide variety of text types in order to write to inform, explain, Describe, argue, persuade and comment. Practise note-taking using different styles for different purposes.	The students would be able to understand factual writing after the extracts from history Also, will learn the usage of prefixes and word order to construct better sentences. Students would also get an idea to create a report from the historical event and use the terminology of some old English. .
FICTION Topic: Unit 8 Exotic places Descriptive texts Novel extracts (Reading Listening Writing)	• The learners are asked to explain on a sticky note a problem they have (e.g. to do with schoolwork, parents, finances); another learner picks it up and responds. Read out responses and discuss. What difficulties did learners experience with this task? Then explore the genre of story continuation. • Explore the rationale of texts to inform/advise, e.g. to connect personally with the reader, to reassure, to provide information, to offer a choice so that the reader feels empowered. • Learners are asked to find and highlight examples of the following features in a simple	• Learners are asked to read their descriptive texts to the rest of the class. • Give it a suitable title. • Adhere to the word limit • Use appropriate expressions and phrases. .

	advice text (there are many suitable on teenage advice sites, e.g. on a 'your problems' page). They could highlight different features using different colours. - personal pronouns, e.g. *I*, *you*, *me* - modal verbs, e.g. *can*, *should*, *would*, *will*, *may*, *must*, *ought* - imperative verbs, e.g. *Explain to your friend … Tell them that …* - elision, e.g. *you're*, *it's* - friendly, informal language - reassurance offered - choices offered. • In pairs, one learner writes a problem page letter (give some suggestions if necessary) and the other writes the reply, using as many of the features of successful advice writing as possible. • Learners are asked to write an advice/information text for a new learner to the school, including the subheadings *Welcome*, *School day*, *Break time and lunch*, *Teachers*, *What to expect* and *How to best fit in*. Learners work in pairs, writing a paragraph each and using a simple success grid , as below, to assess each other's efforts.	
NON FICTION Topic: Unit 7 Time and History (Cont.…)	Extract the main points and relevant information from a text using a range of passages Making strategies such as skimming and scanning. Make relevant notes to select, collate and summarise ideas from texts. Explore the range of different ways writers use layout, form and presentation in a variety of texts.	The students would be able to understand factual writing after the extracts from history Also, will learn the usage of prefixes and word order to construct better sentences. Students would also get an idea to create a report from the historical event and use the terminology of some old English.

FICTION Topic: Unit 8 Exotic places Reading, Listening Writing) Cont.…	Explore the variety and range of ways in which the content of texts can be organised, structured and combined. Use features and conventions of a wide variety of text types in order to write to inform, explain, Describe, argue, persuade and comment. Practise note-taking using different styles for different purposes. • The learners are asked to explain on a sticky note a problem they have (e.g. to do with schoolwork, parents, finances); another learner picks it up and responds. Read out responses and discuss. What difficulties did learners experience with this task? Then explore the genre of story continuation. • Explore the rationale of texts to inform/advise, e.g. to connect personally with the reader, to reassure, to provide information, to offer a choice so that the reader feels empowered.	• Learners are asked to read their descriptive texts to the rest of the class. • Give it a suitable title. • Adhere to the word limit • Use appropriate expressions and phrases.
NON FICTION Topic: Unit 9 Travel and Transport	Extract the main points and relevant information from a text using a range of passages Making strategies such as skimming and scanning. Make relevant notes to select, collate and summarise ideas from texts. Explore the range of different ways writers use layout, form and presentation in a variety of texts. Explore the variety and range of ways in which the content of texts can be organised, structured and combined.	Students would read variety of texts to understand the descriptive writing and analyse the skills of writing. Students would skim and scan the passages of descriptive writing and put up their understanding in their writings.

FICTION Topic: Unit 10 Animal Behaviour Descriptive poems (Reading Listening Writing)	Use features and conventions of a wide variety of text types in order to write to inform, explain, Describe, argue, persuade and comment. Practise note-taking using different styles for different purposes. • Ask learners to fill in a genre wheel in relation to their own reading, then set genre reading targets accordingly. • Give learners a reading trail with genres to encourage them to read beyond the familiar. • Learners complete a reader profile sheet, leading to a reading passport with suggested books to read and targets, which can be signed by parents or carers. • Learners establish an individual reading record for one poem. They complete the number of pages read each day and include bullet point comments on character/plot/themes, a summary comment on whether they would recommend it to a friend, an email to the author, and three quotations from the poem they would like to keep/remember.*	A poem quiz of the week is conducted. Can they: - say what the genre is from some given quotes? - list other works by the same poet? - Point out the figures of speech with proper intonation.
NON FICTION Topic: Unit 11 Music and Dance	Extract the main points and relevant information from a text using a range of passages Making strategies such as skimming and scanning. Make relevant notes to select, collate and summarise ideas from texts. Explore the range of different ways writers use layout, form and presentation in a variety of texts.	Exposure to word lists, comprehensions & genre specific vocabulary discussion Using the dictionary in order to find/ verify the meanings of unknown words: • **Contextual meaning of unknown words.** The students will be expected to use punctuations in their writing task through instructions for each task

FICTION Topic: Unit 12 A load of Nonsense (Reading Listening Writing)	Explore the variety and range of ways in which the content of texts can be organised, structured and combined. Use features and conventions of a wide variety of text types in order to write to inform, explain, Describe, argue, persuade and comment. Practise note-taking using different styles for different purposes • Learners are given two or three narrative poems or ask them to find their own. • In pairs, learners complete a grid, as below, charting the differences between narrative and non-narrative poems, and give feedback. • Learners choose between 8 and 12 poems (they can include some of the poems they know from these activities) and make up their own poetry anthology. They will write an introduction to the collection, explaining what they appreciate about each chosen poem.	**The learner is able to** • Write their own narrative poem • Explain /express their own ideas. • Appreciate the use of creativity in 'nonsense' kind poems.
NON FICTION FICTION Topic: Unit 12 A load of Nonsense (contd.) Revision	REVISION • A narrative extract is discussed and asked the individual learners • Act out the narrative as it is read. • The strategies such as chat show, thought tracking, conscience alley or thought bubbles to explore the characters in more depth. For example, the chat show format is used so that each learner assumes the role of a character in the extract and is interviewed by	A class discussion is held on 'Why did the character do what they did?' Consider what clues are given earlier in the extract and what would you like to ask. • Similarly elicit Creative response: Learners are given a descriptive prose extract and asked to use it write their own short story extract. • As a whole class, before writing, learners should use what they have learnt through their analysis of other extracts to create success criteria for their own work. • In pairs, learners read and appraise each other's work against the success criteria, annotating them with comments. Would they make changes or are they happy with the outcome?

	the host (another learner) to give their own version of events. • Allow other learners the opportunity to ask questions.	• Critical response: Learners write about one of the extract they have experienced, writing and presenting a review, appreciation or interpretation of the chosen work. Sentence stems can be offered as a way of organizing and introducing formal commentary.* Learners are asked to read their responses to the whole class.

MATH

Strand/Topics	Learning Objectives (CAIE expectations)	Learning Experiences/Engagements
NUMBER/Unit 1 Integers, powers and roots	* Add, subtract, multiply and divide integers. * Identify and use multiples, factors, common factors, highest common factors, lowest common multiples and primes; write a number in terms of its prime factors, e.g. 500 = $2^2 \times 5^3$ Calculate squares, positive and negative square roots, cubes and cube roots; use the notation √49 and 3√64 and index notation for positive integer powers.	*Arranging diversified learning activities at different levels, such as hands-on exploratory activities, project work, mathematics reading activities, and activities that based on a topic in Mathematics to integrate relevant learning elements from other Key Learning Areas. * Use factor trees for LCM and HCF 3 circle Venn diagrams for sorting factors and multiples. * Do quick quiz to test learned facts and more complex problems to develop understanding that √30 lies between 5 and 6.
ALGEBRA/Unit 2 Sequences, expressions and formulae	*Generate terms of a linear sequence using term-to-term and position-to-term rules; find term-to-term and position-to-term rules of sequences, including spatial patterns. *Use a linear expression to describe the *n*th term of a simple arithmetic sequence, justifying its form by referring to the activity or practical context from which it was generated.	*Find next xx terms of a given sequence. work out 9th term using t-t rules and p-t rules. Create spatial patterns that fit a given sequence. * From a set of points (str. line graph) develop an algebraic expression. * Using a collection of cards build and simplify expressions - paired work. * Differentiated exercises.

	*Express simple functions algebraically and represent them in mappings. *Derive and use simple formulae, e.g. to convert degrees Celsius (°C) to degrees Fahrenheit (°F).	Develop function machines and write their output as a formula.
NUMBER /Unit 3 Place value, ordering and rounding	*Read and write positive integer powers of 10; multiply and divide integers and decimals by 0.1, 0.01. *Order decimals, including measurements, making use of the =, ≠, > and < signs. *Round whole numbers to a positive integer power of 10, e.g. 10, 100, 1000 or decimals to the nearest whole number or one or two decimal places.	*Arranging diversified learning activities at different levels, such as hands-on exploratory activities, project work, mathematics reading activities, and activities that based on a topic in Mathematics to integrate relevant learning elements from other Key Learning Areas * Students build and swap number statements 5x6 < 100 ÷ 3 etc. Sets of statements where signs must be inserted.
MEASURES/Unit 4 Length, mass and capacity	*Choose suitable units of measurement to estimate, measure, calculate and solve problems in a range of contexts, including units of mass, length, area, volume or capacity. *Know that distances in the USA, the UK and some other countries are measured in miles, and that one kilometre is about 5–8 of a mile.	* Find a missing dimension given other and volume e.g. a cuboid is 2cm wide and 7cm high its volume is 42cm^3 how long is it? *Carry out a meaningful survey in small groups Make a starting hypothesis.
GEOMETRY/Unit 5 Angles	***** Solve geometrical problems using properties of angles, of parallel and intersecting lines, and of triangles and special quadrilaterals, explaining reasoning with diagrams and text.	***** Incorporating the use of information technology for interactive learning and self-directed learning * Given a selection of shape find those congruent.
HANDLING DATA/Unit 6 Planning and collecting data	*Identify and collect data to answer a question; select the method of collection, sample size and degree of accuracy needed for measurements. *Know the difference between discrete and continuous data. *Construct and use: – frequency tables with given equal class intervals to gather continuous data	***** Carry out a meaningful survey in small groups Make a starting hypothesis. * Display the data from your survey selecting the most appropriate format and showing you know the difference between discrete and continuous data.

	– two-way tables to record discrete data.	
NUMBER/ Unit 7 Fractions	*Find equivalent fractions, decimals and percentages by converting between them. *Convert a fraction to a decimal using division; know that a recurring decimal is a fraction. *Order fractions by writing with common denominators or dividing and converting to decimals. *Add and subtract fractions and mixed numbers; calculate fractions of quantities (fraction answers); multiply and divide an integer by a fraction.	***** Fraction snap with equivalent fractions. matching pairs exercises. * Fraction snap with equivalent fractions. Matching pairs exercises. * Fraction with equivalent decimals. matching pairs exercises. * Differentiated exercises. * FDP snap with equivalent fractions. Matching pairs exercises. * Differentiated exercises. * Finding the best value from different suppliers.
GEOMETRY/Unit 8 Shapes and geometric reasoning	*Know that if two 2D shapes are congruent, corresponding sides and angles are equal. *Classify quadrilaterals according to their properties, including diagonal properties. *Know that the longest side of a right-angled triangle is called the hypotenuse. Pages 36–39 Identify alternate angles and corresponding angles. *Understand a proof that: – the angle sum of a triangle is 180° and that of a quadrilateral is 360° – the exterior angle of a triangle is equal to the sum of the two interior opposite angles.	***** Incorporating the use of information technology for interactive learning and self-directed learning * Take care when preparing diagrams to allow working/answer space. Use 4 quadrant axes to extend the use of positive scale factor. * Explain why the proof works. Show understanding it is true in all cases. * Use ruler and compasses to construct the net of each solid, colour and make them into a mobile, which ones balance-why? * Work by families i.e. all triangles then quadrilaterals etc. * Venn diagram exercises Practical sorting.
ALGEBRA/Unit 9 Simplifying expressions and solving equations	*Know that letters play different roles in equations, formulae and functions; know the meanings of *formula* and *function*. *Know that algebraic operations, including brackets, follow the same order as arithmetic operations; use index notation for small positive integer powers. *Construct linear expressions.	***** Algebraic dimensions of rectangles lead to linear expressions of perimeter. Give a value to then be solved.

	*Simplify or transform linear expressions with integer coefficients; collect like terms; multiply a single term over a bracket. *Substitute positive and negative integers into formulae, linear expressions and expressions involving small powers, e.g. 3*x*2 + 4 or 2*x*3, including examples that lead to an equation to solve.	
HANDLING DATA/Unit 10 Processing and presenting data	*Construct and solve linear equations with integer coefficients (unknown on either or both sides, without or with brackets). *Calculate statistics for sets of discrete and continuous data; recognise when to use the range, mean, median and mode and, for grouped data, the modal class. *Draw, and interpret: – frequency diagrams for discrete and continuous data – pie charts – simple line graphs for time series – stem-and-leaf diagrams.	***** Analyse the results of your survey check the validity of your hypothesis.
EXAMS		
NUMBER/ Unit 11 Percentages	*Calculate and solve problems involving percentages of quantities and percentage increases or decreases; express one given number as a fraction or percentage of another. *Use equivalent fractions, decimals and percentages to compare different quantities	* Can be a hard problem to calculate original price given a percentage loss. * Finding the best value from different suppliers.
GEOMETRY/Unit 12 Constructions	Use a straight edge and compasses to construct: – the midpoint and perpendicular bisector of a line segment – the bisector of an angle.	***** Review last unit's skills with ruler and compasses. Give lots of examples covering all types. Create patterns with intersecting circles and colour them. Can you do the same with Triangle types? * Needs quite a lot of practice to secure these skills.

	*Use a ruler and compasses to construct: – circles and arcs – a triangle, given three sides (SSS) – a triangle, given a right angle, hypotenuse and one side (RHS).	
ALGEBRA/Unit 13 Graphs	***** Construct tables of values and use all four quadrants to plot the graphs of linear functions, where *y* is given explicitly in terms of *x*; recognise that equations of the form *y* = *mx* + *c* correspond to straight-line graphs.	***** Draw graphs relating to the above work moving towards an understanding of y=mx+c being always a straight line. * Given A (x1,y1) and B (x2,y2) know and use mp = ($\frac{x1+x2}{2}$, $\frac{y1+y2}{2}$)
NUMBER/ Unit 14 Ratio and proportion	*Simplify ratios, including those expressed in different units; divide a quantity into more than two parts in a given ratio. *Use the unitary method to solve simple problems involving ratio and direct proportion.	*Can you find the Mathematics in all the words? * Develop from previous method of division into two part ratio. Give the ratio and the value of one part - find the other values. * There are some quicker shorts cuts that students can find and use such as dividing by 2, 3 or some simple value.
HANDLING DATA/Unit 15 Probability	*Know that if the probability of an event occurring is *p*, then the probability of it not occurring is 1 – *p*. *Find probabilities based on equally likely outcomes in practical contexts. *Find and list systematically all possible mutually exclusive outcomes for single events and for two successive events. *Compare estimated experimental probabilities with theoretical probabilities, recognising that: – when experiments are repeated different outcomes may result – increasing the number of times an experiment is repeated generally leads to better estimates of probability.	***** Differentiated exercises. * Rolling dice or spinning spinners Mixing D4, D6, D8 and D10s produces good results. * Roll two different dice or two spinners list all the outcomes. Carry out experiments to sample the number of unknown counters in a bag. Suggest how m any of each type of counter are in the bag, given known total. * Group exercise rolling dice 200 times , collect result and combine data from groups to create large sample set - show how estimate changes as more data is added to the set.

GEOMETRY/Unit 16 Position and movement	*Find the midpoint of the line segment AB, given the coordinates of points A and B. *Transform 2D shapes by rotation, reflection and translation, and simple combinations of these transformations. *Understand and use the language and notation associated with enlargement; enlarge 2D shapes, given a centre of enlargement and a positive integer scale factor. *Interpret and make simple scale drawings.	***** Take care when preparing diagrams to allow working/answer space. Use 4 quadrant axes to extend the use of positive scale factor. * Ties in with symmetries above prepare activity sheets or slides depending on the technology available.
MEASURES/Unit 17 Area, perimeter and volume	*Know the definition of a circle and the names of its parts; know and use formulae for the circumference and area of a circle. *Derive and use formulae for the area of a triangle, parallelogram and trapezium; calculate areas of compound 2D shapes, and lengths, surface areas and volumes of cuboids. *Use simple nets of solids to work out their surface areas.	***** Link with construction of circle above. also link type of units to the different formulas for length and area. * Carefully create nets from solid boxes. * Work in teams to derive the formulas from the formula for the area of a rectangle. Within teams pairs work on compound shapes, then swap with other teams to find the areas.
HANDLING DATA /Unit 18 Interpreting and discussing results	*Interpret tables, graphs and diagrams for discrete and continuous data, and draw conclusions, relating statistics and findings to the original question. *Compare two distributions, using the range and one or more of the mode, median and mean. *Compare proportions in two pie charts that represent different totals.	***** Use graphs of two people starting from the same town at different times/speed Describe journeys in word for students to graph. * Display the data from your survey selecting the most appropriate format and showing you know the difference between discrete and continuous data. * Analyse the results of your survey check the validity of your hypothesis. * Investigate volumes and surface areas of boxes-plot the results. Brainstorm ideas to generate other types of graphs. * Analyse the graphs and data from above.

PHYSICS

Strand/Topics	Learning Objectives (CAIE expectations)	Learning Experiences/Engagements
Physics Scientific Inquiry	Ideas and evidence Make predictions and review them against evidence Be able to talk about the importance of questions, Evidence and explanations. **Plan investigative work** Suggest ideas that may be Tested. Choose appropriate apparatus and use it correctly. Make predictions referring to previous scientific knowledge and understanding Identify appropriate evidence to collect and suitable methods of collection Outline plans to carry out Investigations, considering the variables to control, change or observe. **Obtain and present evidence** Make careful observations including measurements Present results in the form of tables, bar charts and line graphs	Students will draw & label scientific diagrams, design their own experiments, observe & conclude, draw inferences, view videos & ppts, study model systems, make models, play games, answer quizzes, use scientific terminology, use scientific reasoning, make presentations, solve worksheets based on the given topics:

	Consider evidence and approach Make conclusions from collected data, including those presented Consider explanations for predictions using scientific knowledge and understanding and communicate these in a graph, chart or Spreadsheet.	
Physics/Speed	**Speed** Calculate speeds, including through the use of timing gates Interpret simple distance/time graphs Distinguish between Speed and velocity To learn working speedometer. To learn working of Speed trap gun.	**Speed** Pupils measure their walking, hopping, running pace etc. They can estimate the speed of various objects such as a snail, a plane, or research the speed of athletes, to practice the use of different units. Data logging can be used for very fast or very slow speeds. Calculate average speed using timing gates. Pupils investigate how the average speed of an object varies with the gradient of a slope. Produce distance-time graphs. Interpret gradients on distance-time graphs
Physics/Sound	**Sound** Explain the properties of sound in terms of movement of air particles Relate sound to hearing. Recognise the link between loudness and amplitude, pitch and frequency	**Sound** Investigate how sounds are made. Make sounds with simple objects such as plucking stretched elastic bands on a box, twanging rulers, blowing across test tubes. Pupils should suggest how their 'instrument' might be given a range of different notes and the ability to be loud or soft.

	Investigate how fast sound travels. Interpret information provided by a cathode ray oscilloscope.	Demonstrate ear structure using a model ear. Discuss ways of preventing ear damage. Research the sound receptors of animals such as the bat and dolphin Demonstrate that vibrations are moving large quantities of air to and fro using a drum, or loudspeaker on very low pitch. Students should discuss that sound also travels through water (swimming pools, whales, ultrasound) and through solids (ticking watch through table, railway lines etc). Discuss examples which show that sound is travelling more slowly than light (noise across a field, thunderstorms). Investigate using a CRO the relationship between loudness and the amplitude
Physics/Light	Light Use light travelling in a straight line to explain the formation of shadows and other phenomena. Discuss explanations for results using scientific knowledge and understanding. Communicate these clearly to others. Describe reflection at a plane surface and use the law of reflection Investigate refraction at the boundary between air and glass or air and water.	Light Observe sources of light - candles, bulbs etc and suggest how it is possible to see them. Cut off the light with a screen with a hole in and look for an illuminated spot. Pass light through a glass sided box containing smoke to show a ray of light. Ask pupils to suggest how they see objects which are not luminous. Investigate shadows and how they form e.g. size and sharpness. Make and use a pinhole camera. A simple box can be made light-tight and have a pin-hole in the centre of a sheet of black paper at one end and a screen at the other.

	Construction of pin hole camera Take appropriately accurate measurements. Construction of Kaleidoscope Construction of Periscope Explain the dispersion of white light.	If the hole is pointed towards a fairly bright light source the image of the light source will be seen inverted on the screen. Students can predict the effect of making several holes, enlarging one hole and placing a convex lens in front of the enlarged hole and then investigate practically. **Activities** Study images in plane mirrors. Investigate the law of reflection by directing rays of light at a plane mirror. Make a simple periscope from cardboard tubes and small plastic or aluminium mirrors. The distance of the image can be investigated using a Pepper's ghost model. Observe refraction by the 'disappearing coin trick' at the bottom of a pan which is slowly filled with water or seeing a ruler 'bending' in water. They can investigate the effects by looking through a glass block and observing apparent depth. The swimming pool is a good context to use if appropriate. Plotting the passing of rays through glass blocks, rectangular and semi-circular, enables students to link to ray diagrams. 8Pl5 Explain the dispersion of white light. Identify trends and patterns in results (correlations). Discuss explanations for results using scientific knowledge and understanding. Communicate these clearly to others. A spectrum can be demonstrated using a good prism. They can also be observed using cheap diffraction

	Explain colour addition and subtraction, and the absorption and reflection of coloured Artificial Rainbow formation in the form of activity.	gratings. They can be compared with a rainbow to try to emphasise that light is a mixture of all the colours. Diagrams should be used to show the directions of the rays of light through the prism. Explain colour addition and subtraction, and the absorption and reflection of coloured light. Discuss explanations for results using scientific knowledge and understanding. Communicate these clearly to others. Investigate filters and explain that some colours are absorbed and some transmitted. Demonstrate seeing coloured objects using a shiny white board and primary coloured felt pens. In a well darkened room, the shapes light up or disappear. You can try writing a message which has a different meaning depending on the colour of light falling on it. A demonstration of adding colours (lights not dyes) uses three lights with red, green and blue filters in a circuit with a rheostat. Being able to fade out / in the different colours enables cyan, magenta and yellow to be obtained (on a white board) and even white when all three are mixed.
Physics/Magnetism	Describe the properties of magnets. Recognise and reproduce the magnetic field pattern of a bar magnet.	Investigate the properties of magnets. Pupils should be given a pair of magnets, a simple compass, various metallic and non-metallic materials, a small dish of water and piece of lightweight object to float the magnet on. If available some objects like door seals, magnetic catches, magnetic putty can be demonstrated as well. Activities Magnetise strips of steel / screw driver blades by stroking with a magnet several times in one direction. To return to the start of the stroke the magnet should be taken to some distance from the iron.

	Construct and use an electromagnet. Use a range of equipment correctly. Discuss and control risks to themselves and others. Present results as appropriate in tables and graphs. Construction and working of electric bell	Demagnetising can be achieved by heating. Discuss why the steel can become magnetised. Attraction and repulsion can be seen very easily if magnets are suspended. This is also an opportunity to check which pole points to the north of the earth. Plot magnetic fields. Field patterns for single magnets or for facing poles can be observed using iron filings on paper held over the magnet but these do not give very clear patterns. The method using plotting compasses avoids the problem of getting iron filings on magnets but does need explaining carefully. Pupils make their own electromagnet using a low voltage power pack. Pupils plan a way to test the strength of the electromagnet, and improve its strength. Research the use of magnets and electromagnets. Research uses and find some in medical contexts, route finding, security, sorting steel from other materials for recycling etc.

CHEMISTRY

Strand/Topics	Learning Objectives (CAIE expectations)	Learning Experiences/Engagements
Scientific Inquiry	Ideas and evidence • Make simple calculations • Identify trends and patterns in results (correlations) • Compare results with predictions • Identify anomalous results and suggest improvements to investigations • Interpret data from secondary sources • Discuss explanations for results using scientific Knowledge and understanding. Communicate these clearly to others • Present conclusions to others in appropriate ways Plan investigative work • Suggest ideas that may be tested • Choose appropriate apparatus and use it	• Be able to talk about the importance of questions, evidence and explanations • Make predictions and review them against evidence • Make conclusions from collected data, including those presented in a graph, chart or spreadsheet • Recognise results and observations that do not fit into a pattern, including those presented in a graph, chart or spreadsheet • Consider explanations for predictions using scientific knowledge and understanding

	• Make predictions referring to previous scientific knowledge and understanding • Identify appropriate evidence to collect and • Be able to talk about the importance of questions, evidence and explanations • Make predictions and review them against evidence • Make conclusions from collected data, including those presented in a graph, chart or spreadsheet • Recognise results and observations that do not fit into a pattern, including those presented in a graph, chart or spreadsheet • Consider explanations for predictions using scientific knowledge and understanding and communicate these • Present conclusions using different methods suitable methods of collection	and communicate these • Present conclusions using different methods

	• Outline plans to carry out investigations, considering the variables to control, change or observe Obtain and present evidence • Make careful observations including measurements • Present results in the form of tables, bar charts and line graphs **Consider evidence and approach** Make conclusions from collected data, including those presented.	
Strand/Topics	**Learning Objectives (CAIE expectations)**	**Learning Experiences/Engagements**
The states of matter	Show how the use particle theory of matter can be used to explain the properties of solids, liquids and gases, including changes of state, gas pressure and diffusion. Compare results with predictions. Discuss explanations for results using scientific knowledge and understanding. Communicate these clearly to others	Teacher will review the motion and particle arrangement in a solid, liquid and a gas using a PowerPoint presentation. Learners in group will list down the difference between features of solid, liquid and gas. Learners will also review the changes to describe how the motion and particle arrangement changes during melting, freezing, boiling, condensing and evaporating and discuss in the class

	Show how the use particle theory of matter can be used to explain the properties of solids, liquids and gases, including changes of state, gas pressure and diffusion. Show how the use particle theory of matter can be used to explain the properties of solids, liquids and gases, including changes of state, gas pressure and diffusion	Activity: Observe ice floating in water. Discuss the problems of (burst pipes) and uses of (protecting pond life) freezing water. Leaners will observe various setup and try to explain their observation using particle theory of mater. Teacher will discuss the effect of gas pressure. Teacher will demonstrate the process of diffusion and dissolving stating their process.
Elements, compound, Mixture	Understand that elements are made of atoms.	Teacher will explain that the simplest form of particle is the atom. Teacher will explain the structure of atom to the learners using a diagram. Teacher will demonstrate the spherical model of the atom to learners for their better understanding. Explain that elements contain only one type of atom and therefore cannot be split into different substances. They have only one name.

	Understand that elements are made of atoms. Give chemical symbols for the first twenty elements of the Periodic Table.	Teacher will introduce periodic table to the learners by displaying photos of the first twenty elements of the Periodic Table. Learners along with the teacher will describe each element in a sentence and note them down e.g. hydrogen is a colourless gas. Teacher will explain why chemical symbols are useful. Leaners will research why certain elements have different symbols e.g. sodium as Na, potassium as K, mercury as Hg, Learners will make mnemonics to remember the first 20 elements along with their symbols.
	Distinguish between elements, compounds and mixtures. Use a range of equipment correctly. Discuss and control risks to themselves and others. Distinguish between elements, compounds and mixtures. Plan investigations to test ideas. Use a range of equipment correctly. Discuss and control risks to themselves and others.	Teacher while demonstration explains the properties of element, compound and mixture. Activity: Compare the properties of an iron/sulfur mix with the product of a reaction between the elements. The mixture should be heated strongly until it begins to react. Show that the formation of a mixture is physical in nature whereas the formation of a compound is a chemical reaction. While lab demonstration leaners will also become aware about various apparatus used. Teacher will explain the properties of elements, compound and mixtures in detail with examples.

		Leaners will plan their own investigation for comparison of element, mixture and compound.
Metals and Non metals	Describe and explain the differences between metals and non-metals. Revision	Teacher with the help of the images will discuss the properties of metal and Non-metals and relate it to the periodic table to show positions.
	Describe and explain the differences between metals and non-metals. Test predictions with reference to evidence gained. Plan investigations to test ideas. Identify important variables, choose which variables to change control and measure. Make predictions using scientific knowledge and understanding. Use a range of equipment correctly. Compare results with predictions. Present conclusions to others in appropriate ways. Present results as appropriate in tables and graphs.	Leaners with the help of a teacher will compare the properties of metals and Non-metals and will list them down. Learners will plan an investigation and discuss in the class.
	Describe and explain the differences between metals and non-metals.	Learners will research which metals do not share the general properties of metals and discuss in the class. Examples of exceptions are:

	Interpret data from secondary sources.	Hardness and melting point – sodium. Density – sodium, magnesium, aluminium. Magnetic properties - iron, nickel, cobalt. Colour - gold, copper. State at room temperature – mercury.
	Describe and explain the differences between metals and non-metals. Use a range of equipment correctly. Compare results with predictions. • Present conclusions to others in appropriate ways.	Leaners will investigate the reactivity of metals and non metals to compare their results. The reaction of some metals with dilute acids can be investigated. The hydrogen gas given off should be tested. Teacher will discuss in detail the chemical properties of metals and Non metasl. Word equations should be used. A general equation can be given i.e. metal + acid→salt + hydrogen
Unit 3B: 8.8 Chemical Reactions	Describe chemical reactions which are not useful. • Use a range of equipment correctly.	Teacher will discuss the formation of rust. Teacher will also discuss the different conditions necessary for the formation of rust. A suitable introduction would be a survey of cars or bikes to find out where and at what age rusting mostly occurs. Teacher will explain oxidation reaction

	Describe chemical reactions which are not useful. Test predictions with reference to evidence gained. Plan investigations to test ideas. Identify important variables, choose which variables to change control and measure. Make predictions using scientific knowledge and understanding. Use a range of equipment correctly. Compare results with predictions. Present conclusions to others in appropriate ways. Present results as appropriate in tables and graphs.	Leaners will design an investigation into factors which increase the rate of rusting such as temperature and presence of salt in the water. Teacher will discuss the ways of preventing rust from forming e.g. painting, greasing, galvanising, plastic coating and then suggest where they could be most appropriately used. Learners will research the corrosion of other metals such as magnesium, aluminium, zinc, tin and copper. Groups make presentations about their investigations and the conclusions they have made. Examples of metals which corrode are copper, bronze and silver.
	Respiration Combustion Oxidation reaction	Teacher will discuss the occurrence of chemical reaction in our daily life. Teacher will also discuss the process of respiration and combustion with the word equation.

BIOLOGY

Strand/Topics	Learning Objectives (CAIE expectations)	Learning Experiences/Engagements
Biology Scientific Inquiry	**Ideas and evidence** Make predictions and review them against evidence Be able to talk about the importance of questions, evidence and explanations **Plan investigative work** Suggest ideas that may be Tested Choose appropriate apparatus and use it correctly Make predictions referring to previous scientific knowledge and understanding Identify appropriate evidence to collect and suitable methods of collection Outline plans to carry out investigations, considering the variables to control, change or observe **Obtain and present evidence** Make careful observations including measurements Present results in the form of tables, bar charts and line	Students will draw & label scientific diagrams, view through the microscope, observe & conclude, draw inferences, view videos & ppts, study model systems, make models, play games, answer quizzes, use scientific terminology, use scientific reasoning, make presentations, solve worksheets based on the given topics:

	graphs **Consider evidence and approach** Make conclusions from Students will draw & label scientific diagrams, view through the microscope, observe & conclude, draw inferences, view videos & ppts, study model systems, make models, play games, answer quizzes, use scientific terminology, use scientific reasoning, make presentations, solve worksheets based on the given.	
Biology / How plants grow	**How plants grow** Explore how plants need carbon dioxide, water and light for photosynthesis in order to make biomass and oxygen. Plan investigations to test ideas. Identify important variables, choose which variables to change, control and measure. Make predictions using scientific knowledge and understanding. Use a range of equipment correctly. Discuss and control risks to themselves and others. Compare results with predictions.	**How plants grow** Describe a simple structure of a leaf and how it is adapted to photosynthesis and water loss. Discuss how the leaf is adapted to photosynthesis. Discuss how the leaf allows water to escape. Describe what happens during photosynthesis. Test the formation of oxygen from pond weed. Discuss the idea that green plants can convert carbon dioxide and water into glucose and oxygen, that glucose is then converted into biomass. Test leaves for starch in the lab. Show that light is needed to make starch by investigating leaves that have sections covered with foil excluding the light and left for at least 24 hours.

		Provide evidence that only green parts of plants make starch by testing a variegated leaf.
Biology / A healthy diet.	**A healthy diet.** Identify the constituents of a balanced diet and the functions of various nutrients. Understand the relationship between diet and fitness.	**A healthy diet.** Collect and study food labels from cans etc to discover how foodstuffs are divided into carbohydrates, proteins, lipids, vitamins and minerals. Identify the foods with the highest energy content (for growth, movement and keeping warm) and discuss whether they think these are the most 'healthy' foods. Do tests for various food contents. Obesity as a result of overeating of energy foods should be included. Include non-animal sources of protein and be able to suggest a group of people who need a lot of protein. Investigate the Guideline Daily Allowance (GDA) for various nutrients using secondary sources Obesity and circulatory problems as a result of overeating of fatty foods should be included. Investigate the effects of nutritional deficiencies using secondary sources.
Digestion	**Digestion** Recognise the organs of the alimentary canal and know their functions. Investigate the functions of the organs of the alimentary canal.	**Digestion** Identify and place the organs of the digestive system - mouth, oesophagus/gullet, stomach, small intestine, large intestine. Complete and label a diagram of the organs. Include the liver and pancreas.

	Understand the function of enzymes as biological catalysts in breaking down food to simple chemicals	Chew a piece of bread for a few minutes and notice the changes that take place. Investigate the effect of the enzyme amylase on starch solution. Discuss why food needs to be chewed and also that saliva contains an enzyme so starts breaking down some foods. Mechanical and chemical breakdown of food should be discussed.
Circulation	**Circulation** Recognise and model the basic components of the circulatory system and know their functions. Explain the working of the heart. Measuring the pulse rate. Link artery and pulse Explain the functions of the blood.	**Circulation** Name the major parts of the circulatory system. Name the major parts of the respiratory system. Discuss the link between the two systems Listen to a heart-beat through a stethoscope, a home-made one will work. Use a diagram to explain the double circulation system. Link with the reasons for the structures of artery, capillary and vein. See veins in your wrist or crook of your elbow. Make a simple model of the circulatory system. Investigate how scientists developed their knowledge of the circulatory system from ancient times to the present day. Investigate pulse rate (wrist and/or neck) before and after exercise and relate it to increased heartbeat.

		Use diagrams to show that blood transports substances around the body. Research disorders of the circulatory system using secondary sources such as locally available health education material
Respiratory system.	**Respiratory system.** Recognise the basic components of the respiratory system and know their functions. Explain gaseous exchange Describe the effects of smoking. Define and describe aerobic respiration and use the word equation.	**Respiratory system.** A simple model of the lungs. Use a lung model with two balloons in a bell jar and a rubber diaphragm. Compare it with the movement of ribs etc felt when breathing deeply. Demonstration of dissection of animal lungs to show the spongy texture and branched tubes. The volume of air which a pupil can exhale can be measured. Investigate how breathing rate is affected by exercise. Understand the importance of keeping the airways clean. Relate the structure of the ciliated epithelial cells to their function. Discuss reasons why it is important that the airways are kept clean essential the way that cilia and mucus effectively clean the incoming air in nose and throat should be described. Describe some problems which result from smoking. Use a ‘smoking machine’ which collects the products of a burning cigarette. They are drawn through cotton

		wool and Universal Indicator solution and their temperature is taken. Collect 'pros' and 'cons' of smoking and debate the topics, making use of any locally available health education material. Discuss the difference between respiration and breathing. Appreciate that aerobic respiration requires oxygen. Discuss how glucose and oxygen reach every cell of the body and how the products leave. Respiration is the process an organism uses to supply the energy every cell needs to survive. glucose + oxygen → carbon dioxide + water
Reproduction in Humans	**Reproduction in Humans** Describe the human reproductive system, including the menstrual cycle, fertilisation and foetal development.	**Reproduction in Humans** Name, locate and describe the functions of the major parts of the human reproductive system. Complete and label diagram of the organs of the male and female reproductive system. Discuss the function of each part and include this as annotations on the diagrams. Describe the changes that occur during the menstrual cycle. Construct a diagram of the days in the menstrual cycle, marking when menstruation and ovulation might occur and when the uterus lining is thickening. Discuss with students the variation in cycle length and practise

	Describe the human reproductive system, including the menstrual cycle, fertilisation and foetal development. Discuss the physical and emotional changes that take place during adolescence	calculating when a woman might ovulate and when her period is due. Explain that the menstrual cycle also prepares the uterus for a fertilised egg and identify the time in the cycle when fertilisation is most likely. Describe fertilisation. Use diagrams or photographs of a sperm cell and an egg cell and discuss how they are adapted for their functions. Discuss about the sperm being deposited in the vagina and having to move to where the egg is and the egg being moved down the oviduct. Discuss, using secondary sources, how the fertilised cell divides and increases in number. Ask pupils to draw, or label, and sequence pictures or diagrams illustrating ovulation, fertilisation, cell division and implantation. Discuss the foetus' need for nutrients and explain the role of the placenta in materials exchange. Label a diagram and use arrows to show movement of oxygen and nutrients from the mother to the foetus and the movement of carbon dioxide and other waste products from the foetus to the mother.
Diet, drugs and disease.	**Diet, drugs and disease.** Discuss how conception, growth, development, behaviour and health can be affected by diet, drugs and disease.	**Diet, drugs and disease.** Review work on a balanced diet and the effects of nutritional deficiencies Students discuss other ways in which a diet may be unhealthy. Discuss what pupils understand about drugs.

		Describe drugs as being illegal drugs, alcohol, or pharmaceutical; drugs. Use secondary sources to discuss the effects of the different types of drugs on health. Students investigate the effect of caffeine on reaction times.

HINDI

Strand/Topics	Learning Objectives (CAIE expectations)	Learning Experiences/Engagements
Reading & Writing- Seen passage based on Health is Wealth Section	• identify and select relevant information • understand ideas, opinions and attitudes • show understanding of the connections between ideas, opinions and attitudes	spoken interactions progressive reading reading and writing activities newspaper or magazine article reading Brain storming
Grammar- One word for phrase Noun-Proper, Common, abstract Hindi Counting-1 to 100	✓ use a range of grammatical structures and vocabulary accurately and effectively ✓ show control of spelling	Videos and cd. Games-flash cards, Cover puzzles Pass the Ball

Reading & Writing- Tourism World Section	• identify and select relevant information • understand ideas, opinions and attitudes • show understanding of the connections between ideas, opinions and attitudes	spoken interactions progressive reading reading and writing activities newspaper or magazine article reading Brain storming
Grammar- Synonyms Antonyms Gender-Masculine & Feminine Number-Singular & Plural	✓ use a range of grammatical structures and vocabulary accurately and effectively ✓ show control of spelling	Videos and cd. Games-flash cards, Cover puzzles Pass the Ball
Art of writing- Diary Writing Informal letter writing	❖ communicate information/ideas/opinions clearly, accurately and effectively ❖ organise ideas into coherent paragraphs using a range of appropriate linking devices	practice writing short pieces of writing-Exemplar writing workshop- Which involves uninterrupted, silent, sustained writing on a topic of their own choice for 30 minutes. shared writing session. Activity-Complete the sentence…… Paired interviews Rocket writing

Speaking Formative 1 Topic presentation	❖ use a range of grammatical structures and vocabulary accurately and effectively ❖ show control of punctuation and spelling ❖ use appropriate register and style/format for the given purpose and audience ▪ communicate ideas/opinions clearly, accurately and effectively ▪ use a range of grammatical structures and vocabulary accurately and effectively ▪ show control of pronunciation and intonation patterns	two- to-three-minute presentation three-to-four minute conversation or discussion
Reading & Writing- Science Miscellany Section **Grammar-** Pronoun-Personal,Definite,Indefinit	• identify and select relevant information • understand ideas, opinions and attitudes • show understanding of the connections between ideas, opinions and attitudes ✓ use a range of grammatical structures and vocabulary accurately and effectively	spoken interactions progressive reading reading and writing activities newspaper or magazine article reading Brain storming Videos and cd. Games-flash cards, Cover puzzles Pass the Ball

e,Interogative,Relation,Reflexive Adjective-Adjective of quality, numbers, quantity, pronominal **<u>Speaking</u>** Formative 2 Reading **Art of writing-** Picture Description	✓ show control of spelling ▪ communicate ideas/opinions clearly, accurately and effectively ▪ use a range of grammatical structures and vocabulary accurately and effectively ▪ show control of pronunciation and intonation patterns ❖ communicate information/ideas/opinions clearly, accurately and effectively ❖ organize ideas into coherent paragraphs using a range of appropriate linking devices ❖ use a range of grammatical structures and vocabulary accurately and effectively ❖ show control of punctuation and spelling ❖ use appropriate register and style/format for the given purpose and audience	two- to-three-minute presentation three-to-four minute conversation or discussion practice writing short pieces of writing-Exemplar writing workshop- Which involves uninterrupted, silent, sustained writing on a topic of their own choice for 30 minutes. shared writing session. Activity-Complete the sentence…… Paired interviews Rocket writing

Listening- Dialogue Story Article	○ Identify and select relevant information ○ understand ideas, opinions and attitudes ○ understand what is implied but not directly stated, e.g. gist, speaker's purpose, intention and feelings	CD-ROMs-PaTvar Booklet (listening cd-paper 2)
Reading & Writing- **Euphoria Section**	• identify and select relevant information • understand ideas, opinions and attitudes • show understanding of the connections between ideas, opinions and attitudes	spoken interactions progressive reading reading and writing activities newspaper or magazine article reading Brain storming
Listening- Dialogue Story Article	○ Identify and select relevant information ○ understand ideas, opinions and attitudes ○ understand what is implied but not directly stated, e.g. gist, speaker's purpose, intention and feelings	CD-ROMs-PaTvar Booklet (listening cd-paper 2)

Art of writing- Paragraph Writing	❖ communicate information/ideas/opinions clearly, accurately and effectively ❖ organize ideas into coherent paragraphs using a range of appropriate linking devices ❖ use a range of grammatical structures and vocabulary accurately and effectively ❖ show control of punctuation and spelling ❖ use appropriate register and style/format for the given purpose and audience	practice writing short pieces of writing-Exemplar writing workshop- Which involves uninterrupted, silent, sustained writing on a topic of their own choice for 30 minutes. Shared writing session. Activity-Complete the sentence…… Paired interviews Rocket writing
<u>Reading & Writing-</u> <u>Seen passage based on</u> **World of Creatures section** **<u>Grammar-</u>** Tense Correct sentences	• identify and select relevant information • understand ideas, opinions and attitudes • show understanding of the connections between ideas, opinions and attitudes ✓ use a range of grammatical structures and vocabulary accurately and effectively ✓ show control of spelling	spoken interactions progressive reading reading and writing activities newspaper or magazine article reading Brain storming Videos and cd. flash cards

Speaking Formative 1 Topic presentation	▪ communicate ideas/opinions clearly, accurately and effectively ▪ use a range of grammatical structures and vocabulary accurately and effectively ▪ show control of pronunciation and intonation patterns	two- to-three-minute presentation three-to-four minute conversation or discussion
Listening- Dialogue Story Article **Art of writing-** Formal letter writing	○ Identify and select relevant information ○ understand ideas, opinions and attitudes ○ understand what is implied but not directly stated, e.g. gist, speaker's purpose, intention and feelings ❖ communicate information/ideas/opinions clearly, accurately and effectively ❖ organise ideas into coherent paragraphs using a range of appropriate linking devices ❖ use a range of grammatical structures and vocabulary accurately and effectively ❖ show control of punctuation and spelling	CD-ROMs-PaTvar Booklet (listening cd-paper 2) practice writing short pieces of writing-Exampler writing workshop- Which involves uninterrupted, silent, sustained writing on a topic of their own choice for 30 minutes. shared writing session. Activity-Complete the sentence…… Paired interviews Rocket writing

	❖ use appropriate register and style/format for the given purpose and audience	
Reading & Writing- Seen passage based on] Environment Protection section	• identify and select relevant information • understand ideas, opinions and attitudes • show understanding of the connections between ideas, opinions and attitudes	spoken interactions progressive reading reading and writing activities newspaper or magazine article reading Brain storming
Grammar- Punctuations Idioms	✓ use a range of grammatical structures and vocabulary accurately and effectively ✓ show control of spelling	Videos and cd. flash cards
Listening- Dialogue Story Article	o Identify and select relevant information o understand ideas, opinions and attitudes o understand what is implied but not directly stated, e.g. gist, speaker's purpose, intention and feelings	CD-ROMs-PaTvar Booklet (listening cd-paper 2)
Art of writing-	❖ communicate information/ideas/opinions	practice writing short pieces of writing-Exemplar

Speech Writing	clearly, accurately and effectively ❖ organise ideas into coherent paragraphs using a range of appropriate linking devices ❖ use a range of grammatical structures and vocabulary accurately and effectively ❖ show control of punctuation and spelling ❖ use appropriate register and style/format for the given purpose and audience	writing workshop- Which involves uninterrupted, silent, sustained writing on a topic of their own choice for 30 minutes. shared writing session. Activity-Complete the sentence…… Paired interviews Rocket writing
<u>Reading & Writing-</u> <u>Seen passage based on</u> Different Colors section **<u>Grammar-</u>** Adverb Conjunction Prepositions interjection	• identify and select relevant information • understand ideas, opinions and attitudes • show understanding of the connections between ideas, opinions and attitudes ✓ use a range of grammatical structures and vocabulary accurately and effectively ✓ show control of spelling	spoken interactions progressive reading reading and writing activities newspaper or magazine article reading Brain storming Grammar Ref.Bk. Hindi Vyakaran 7 Videos and cd. flash cards

Art of writing- Dialogue Writing	❖ communicate information/ideas/opinions clearly, accurately and effectively ❖ organise ideas into coherent paragraphs using a range of appropriate linking devices ❖ use a range of grammatical structures and vocabulary accurately and effectively ❖ show control of punctuation and spelling ❖ use appropriate register and style/format for the given purpose and audience	practice writing short pieces of writing-Exampler writing workshop- Which involves uninterrupted, silent, sustained writing on a topic of their own choice for 30 minutes. shared writing session. Activity-Complete the sentence…… Paired interviews Rocket writing
<u>Speaking</u> Formative 2 Elocution	▪ communicate ideas/opinions clearly, accurately and effectively ▪ use a range of grammatical structures and vocabulary accurately and effectively ▪ show control of pronunciation and intonation patterns	two- to-three-minute presentation three-to-four minute conversation or discussion
<u>Listening-</u> Dialogue Story Article	○ Identify and select relevant information ○ understand ideas, opinions and attitudes ○ understand what is implied but not directly stated, e.g. gist,	CD-ROMs-PaTvar Booklet (listening cd-paper 2)

Art of writing- Essay Writing	speaker's purpose, intention and feelings ❖ communicate information/ideas/opinions clearly, accurately and effectively ❖ organise ideas into coherent paragraphs using a range of appropriate linking devices ❖ use a range of grammatical structures and vocabulary accurately and effectively ❖ show control of punctuation and spelling ❖ use appropriate register and style/format for the given purpose and audience	practice writing short pieces of writing-Exampler writing workshop- Which involves uninterrupted, silent, sustained writing on a topic of their own choice for 30 minutes. shared writing session. Activity-Complete the sentence…… Paired interviews Rocket writing

FRENCH

Strand/Topics	Learning Objectives (CAIE expectations)	Learning Experiences/Engagements
Speaking, Reading, Writing, Listening French Shops and goods they sell	Describe various French shops and Discuss what they sell	Tricolore 2 Audio Cd- Tricolore 2 Grammar worksheets
Speaking, Reading, Writing, Listening Means of Transport, Different countries, Describe a town	Discuss tourism abroad Describe a town Discuss appropriate prepositions to be used to describe various means of transport.	Formative- Speaking test on Food and health Activity based on French shops. Tricolore 2 Audio Cd- Tricolore 2 Grammar worksheets Holiday post cards
Speaking, Reading, Writing, Listening Activities to do or not in a town.	Describe activities that one can do in a city/ village/ country side.	Tricolore 2 Audio Cd- Tricolore 2 Grammar worksheets Formative on listening
Speaking, Reading, Writing, Listening School subjects , school day	Describe school and school routine Discuss school rules and use impersonal verbs to express obligation	Tricolore 2 Audio Cd- Tricolore 2 Grammar worksheets Activity on Making a Time Table
Exams, trip, vacations		

Speaking, Reading, Writing, Listening Family	Describe family members. Discuss relations good/ bad with various family members.	Tricolore 2 Audio Cd- Tricolore 2 Grammar worksheets Chart on Family Tree
Speaking, Reading, Writing, Listening Food, order a meal	Discuss what one likes to eat and drink at various meals	Tricolore 2 Audio Cd- Tricolore 2 Grammar worksheets Activity on Menu writing
Speaking, Reading, Writing, Listening Travel plans, bookings	Travel – book tickets, Hotel bookings	Tricolore 2 Audio Cd- Tricolore 2 Grammar worksheets Dialogue writing on bookings through past papers
Speaking, Reading, Writing, Listening Parts of body, Adjectives, clothes and accessories	Describe body parts using adjectives. Describe clothes and accessories with adjectives	Tricolore 2 Audio Cd- Tricolore 2 Grammar worksheets Chart Making on clothes and accessories Play game Simon says
Speaking, Reading, Writing, Listening Leisure activities, Dialogues on invitations, bookings	Discuss leisure activities Frame dialogues on bookings and send as well as accept invitations.	Tricolore 2 Audio Cd- Tricolore 2 Grammar worksheets Dialogues from past papers

GLOBAL PERSPECTIVE

Strand/Topics	Learning Objectives (CAIE expectations)	Learning Experiences/Engagements
Global Perspectives Topic: Tradition, Culture and Identity	Explore and reflect on personal approaches to Tradition, Culture and Identity. Analysis and compare the importance of knowledge and culture worldwide.	Groups to debate for and against – "Is tradition and culture is for old people it is not relevant to young generation?" Prepare a graphical map and compare the different countries worldwide to know importance of knowledge and culture. Prepare a short skit on the influence of technology on culture and evaluate its effects on human life worldwide.
Global Perspectives Topic: Tradition, Culture and Identity	Research on Intangible cultural heritage worldwide.	Produce a chart on various Intangible cultural heritage worldwide and compare it with your country's culture
Global Perspectives Topic: Employment	Explore and reflect on personal approaches to employment and its importance. Analysis and compare the importance of fairness and equality in employment.	Use of flow cart and mind maps to show some statistics, facts about the history of employment during The Great Depression Period Work with students of different grades to investigate the positive and negative effect of fairness and equality in employment.
Global Perspectives Topic: Employment	Research on the growing unemployment rate worldwide and compare it with your country.	Produce a campaign to persuade the students of different grades to understand the causes and consequences of Unemployment.

		Compare the different perspectives of developed and developing countries via internet to understand the job creation issue among the young people.
Global Perspectives Topic: Conflict and Peace	Explore personal experiences and perspectives of conflict and consider some solutions.	Brainstorm different forms of conflict and different levels of conflicts. Watch several soap opera clips showing conflict between people in everyday interaction. Role Play different school, community and family scenarios involving conflict. Think of a range of different situations for exploration. Conduct the role plays in two ways assuming: 1. The participants do not want to resolve the issue causing the conflict 2. The participants do want to resolve the issue causing the conflict Discuss the spoken language and body language used in each scenario
Global Perspectives Topic: Conflict and Peace	Collaborate with others to plan and carry out a project with a clear outcome. Analyse and evaluate attempts to resolve conflicts other than using violence.	For two different countries, students contrast and compare the causes and history of a significant current conflict in each country, including an evaluation of different possible solutions. Present some examples of conflict resolution (e.g. non-violent examples such as a case study of peaceful protest and the work of Mahatma Gandhi and Martin Luther King). Watch clips from the film 'Gandhi' (I have!) that illustrate the philosophy of non-violent resistance and protest, and the use of the method in action. And/or watch film footage and read information about the life and work of Martin Luther King. (YouTube)

		'Non-violence is always better than violence as a way to resolve conflict.' Explain and assess this view.
Global Perspectives Topic: Conflict and Peace	Develop opinions and understand different perspectives on conflicts in own country.	Presentation of findings and collation of information by others to gather a range of case studies. Personal reflection on discussion and conflicts studied. Propose a course of action showing awareness of different opinions and perspectives towards the conflict. Consider the conditions needed for people to live with their differences.
Global Perspectives Topic: Water, Food and Agriculture	To investigate personal use and perspectives of water. Propose some solutions and analyse ways to reduce water consumption.	Complete a survey of household water use online, using one of the many sites available. Collate some key features of the students' use of water. Survey opinions about water use and conservation of it. Draw up a list of actions that could be used to conserve/use less water at home and present to the class.
Global Perspectives Topic: Water, Food and Agriculture	To investigate personal use and perspectives of food and possible ways to reduce food waste.	Students carry out a survey at home about how much food they waste each day- this could be by weight or itemized. Carry out a survey and interview people at home about food waste to gain perspectives on it. Collate results of survey in a group and present them to the class. Take notes from other groups on any different points not raised by own work. Investigate an example of action to persuade people to waste less food. Draw a list of five reasons why it is better not to waste so much food.

ICT		
Strand/Topics	**Learning Objectives (CAIE expectations)**	**Learning Experiences/Engagements**
Number System / Decimal Number System	Learners will Learn the use of Decimal Number System	Learners will get the numbers and they will have to specify it to be a decimal number.
Number System / Binary Number System	Learners will Learn the use of Binary Number System, Where is this used. They learn meaning of 1s and 0s in Binary Number.	Learners will get the numbers and they will have to specify it to be a binary number.
Number System / Conversion of Decimal Number System into Binary Number System	Learners convert decimal number System to binary and understand the working of computer of how it converts high level language to low level language	Solving Sums
Number System / Conversion of Binary Number System into Decimal Number System	Describe the steps to convert binary number System to decimal and understand the working of computer of how it converts low level language to high level language	Solving Sums
Number System / Octal Number System	Learners will learn about Octal Number System, its base and the number range	Learners will get the numbers and they will have to specify it to be a Octal and Hexadecimal number.
Number System / Hexadecimal Number System	Learners will learn about Hexadecimal Number System, its base and the number and alphabet range.	Learners will be given some list of number and they will identify which number is Hexadecimal, Octal .
Number System / Binary Addition , Subtraction, Multiplication, Division	Two Binary Numbers will be added, subtracted , multiplies and divided	Sums will be solved for binary addition, subtraction, multiplication and Division.

Windows 7 / Starting Windows Explorer	Learners will learn What is windows explorer and how to start the windows explorer.	Students will explore the Windows Explorer. They will learn the shortcut keys to work with Windows Explorer.
Windows 7 / Viewing File or Folders	The various ways to view the file needs to be explained. Learners should understand how the files can be viewed with large icons, small icons and extra-large icons etc.	Learners will view the files in different format. They will sort the files in different Order. They will order the files.
Windows 7 / Working with the Control Panel	What is control Panel and what can be done using Control Panel. Uninstalling a software through control panel. Students will understand: Appearance and Personalization of the Desktop. Hardware and Software Setup and Configuration. System Security Networking and Internet User Accounts and Family safety Setting Clock, Language and Region	Learners will explore the various options in Control panel and note down their working. For e.g. Learners will set the time and language using Control Panel
Windows 7 /Changing Date and Time	Learning to change Date and Time through Control Panel	Learners will change the Date and Time of the system using Control Panel.
Windows 7 / About Fonts	Learners will learn to change the font setting of the system. They can add new font They can delete the existing fonts	Learners will change the font size of their computer system.
Windows 7 / My Mouse is not working Windows 7 / Changing the Mouse Settings Windows 7 / Why to Double Click the Mouse?	Students will learn what they can do if their mouse is not working. They will learn the reasons for mouse not functioning. Learners will be able to change the mouse settings.	Students will discuss the reasons for which mouse may not function properly.

	They will know the reason why the click twice the left button of mouse.	
Windows 7 / Using Onscreen Keyboard	Learners will use the Onscreen Keyboard instead of the Keyboard Devices	Learners will make a document using Onscreen Keyboard
Windows 7 / Avoid pressing two keys together	Learners will learn why they should not press two keys together while using keyboards.	Students will do the activity where they will press two keys together and check which one will be printed first.
Windows 7 / Put your computer in sleep mode	They will learn how to put the computer on sleep mode and what is the advantage of sleep mode. They will know when we can use this mode in the computer System.	Learners will put the computer System on Sleep mode.
Formulas and Functions / Create a basic Formulas	Learners will learn the difference between using formulas and functions. They will learn to enter the formula in the cell of the excel.	Learners will solve the questions using both formula and function method.
Formulas and Functions / Using Compound Formulas	Learners will learn to use more than one operator in the same formulas.	Learners will solve the problem using Compound Formulas.
Formulas and Functions / Using Text Formulas	Learners will learn the various text formulas that excel provides. They will learn to concatenate the cells value, upper case and lower case function and many more.	Learners will use the various text formulas in the Excel Sheet
Formulas and Functions / Using Ranges in Formulas	Learners will understand what is range and why do we need it in the formulas	Learners will use the range to solve a formulas instead of clicking on each cell manually
Formulas and Functions / Types of Cell References	Learners will understand the three ways through which they can refer the cell. They will learn to use Relative Reference, Absolute Reference and Mixed Reference	Learners will solve a problem using Relative Reference, Absolute Reference and Mixed Reference.

Formulas and Functions / Cell Reference of Another Worksheet	Learners will learn to refer cells of another worksheet in formulas	Learners will solve the problem where data from two worksheet will be used in a formulas.
Formulas and Functions / Naming a sheet Tab	Learners will learn the rules to name a sheet tab and will be able to rename the worksheets	Learners will rename their worksheet from default name ‘Sheet 1” to Their desired name
Formulas and Functions / Changing Colour of a sheet tab	Describe the various methods to change the colour of the sheet	Students will change the sheet colour
Formulas and Functions / Functions and its rules	Describe the use of functions in Excel. Identify the rules for creating a functions	Students will use function to solve the problem instead of the formulas.
Formulas and Functions / Common Functions	Describe the Common Function in Excel. For e.g. Sum, random, upper, concate etc	Learners will use the common functions in the table data given to them
Using Excel as Database / Using a form to enter data	Describe the use of form in Excel. Explain how the data will be entered using Form	Students will create the form of students taking admission in Grade 11.
Using Excel as Database / Adding New Record in a form	Explain how we can add new records in the form.	Students will create a new record in the same form that they had created in the previous topic
Using Excel as Database / Searching and Deleting a Record	Describe the method that can be used to search for the record entered using form or entered manually. Describe the methods to delete a record.	Learners will delete the record from the database
Using Excel as Database / Sorting and Filtering Data	Describe the meaning of sorting and filtering a data. Explain sorting and filtering a data in Excel,	Students will sort the data entered using the form in the previous topic
Using Excel as Database / Using Advanced Filter	Explain how to use advanced filter	Learners will use advanced filter in the table created by using Form
Using Excel as Database / Using Data Validation	Describe what Data Validation is. Describe the reasons of using Data Validation	Learners will Validate the data in the table created to store the record of the patients

Using Excel as Database / Adding Subtotal in Database	Describe how to do the subtotal in Database of Excel	Learners will do the subtotal of column Billing in the patients table.
Using Excel as Database / Analyzing Data with Pivot Table	Describe the Pivot Table and What is the use of Pivot Table? Explain how can we analyse the data using Pivot Table and how the table data can be represented using different methods	Students will create a pivot table for the table created for the patients
Advance Features of Excel / Components of a chart	Explain them the purpose of using Chart in Excel. Components of Chart needs to be explained.	Students will be provided with the chart and they will learn through
Advance Features of Excel / Creating a chart	Explain to create a chart in Excel with the data provided.	Learners will make a table for students score card. They will show the marks of each students using chart.
Advance Features of Excel / Commonly used Chart Types	Explain the most commonly used charts in Excel.	Students will create commonly used charts for example bar chart suing the table created in the previous topic.
Advance Features of Excel / Formatting a chart / Legend	Explain how the charts can be formatted What is Legend?	Learners will format the chart in excel created earlier.
Advance Features of Excel / Formatting Data Series	Describe what is data series in Excel? Explain how we can format the Data series	Learners will format the data series by formatting the bar colours, lines, slices etc.
Advance Features of Excel / Inserting Pictures	Explain the steps to insert pictures in Excel	Students will insert the picture of students in the excel sheet created for students
Advance Features of Excel / Consolidating Data	What is Consolidating data in Excel?	Learners will consolidate the two worksheets in Excel.
Advance Features of Excel / Grouping Worksheet	Explain the need to group worksheet. Describe the steps to group the Worksheets	Learners will group the patients worksheet with the medical shop worksheet.

Graphics in Qbasic / Review of Qbasic	Review the Qbasic topics they have covered in Grade 6. For E.g Input, Print, Variable, Constants and Operators	Students will write a Qbasic program to add two numbers.
Graphics in Qbasic / Constants and Variables	Review the Constants and Variable in QBasic	Students will write a Qbasic program to print the value of constants variable on the output screen.
Graphics in Qbasic / Getting Started	Explain a short program in Qbasic.	Students will write a Qbasic program to Subtract, Multiply using two numbers.
Graphics in Qbasic / Qbasic Statements	Describe the Qbasic Statements	Students will write a program to add two values taken from the user using INPUT command.
Graphics in Qbasic / Using Graphics	Explain what is Graphics in Qbasic.	Learners will learn about the Screen Resolution
Graphics in Qbasic / Screen Statements	Describe the Screen Statement in Qbasic	Students will set the screen resolution using Screen Statements
Graphics in Qbasic / Color, Line, Circle, Drawing Boxes Statement	Describe the Statements to colour in Graphics, Draw a line, Circle, Boxes using Statements.	Learners will Draw line, Circle and Boxes using Qbasic Statement.
Graphics in Qbasic / Creating Sound in Qbasic	Describe the program to create Sounds using Qbasic	Learners will write a Qbasic Program to make a BEEP Sound.
Surfing Net and E-Mail / Blogs and Twitter and Microblogging	Describe the use of internet. Introduce them with the blogs and Microblogging. Introduce with the advantage and disadvantage of using SNS	Students will discuss about the internet and various services that internet provides.
Surfing Net and E-Mail / Communications Services on the internet	Describe the various communication services on the internet.	Learners will use the communication websites. Two groups will be created. One will discuss about the advantage of using SNS and other one will speak about the disadvantage of using SNS

Surfing Net and E-Mail / Newsgroup and Mailing List / E-Greetings	Explain the Newsgroup and Mailing List concept. Explain the concept of E-Greeting.	Students will discuss about the Newsgroup and make an E-greeting for their friends
The Virus / Types of Virus	Describe Virus and Types of Virus that can cause harm to the computer system	Learners will discuss about the Virus that may enter their computer System and the types of Virus will be listed in front of the class. They will explain whether it is malicious or not.
The Virus / Virus Symptoms	Explain the Symptoms of Virus and explain how they can identify whether there is a virus on the computer.	Students will go through the real life example that they must have seen.
The Virus / Preventing a Virus Infection	Explain how Virus Infection can be Prevented. Explain the various methods through which we can prevent it.	Learners will work in a group to list the number of ways they can use to prevent virus infection. They will discuss this in the class with the other groups
The Virus / Antivirus Software	Listing of the various Antivirus Software that are currently being used by the users	Students will search for the antivirus software installed in their machine (at home) and in the school.
The Virus / Using an Antivirus Software	Describe the features of various Antivirus Software.	Students will research about the various features an Antivirus Software provides.

ART and DESIGN

Strand/Topics	**Learning Objectives (CAIE expectations)**	**Learning Experiences/Engagements**
COLOUR PRACTICAL	-To introduce the theory of colour with hands-on experience. -introduction to the Primary, Secondary & tertiary colours - To be able to create tint, tone & shades of various colours. -Students will learn the primary colours - Students will mix secondary and tertiary colours from primary colours	Students will be introduced to primary and secondary colours. They'll fill in the circles with primary and secondary colours. Then they will mix tertiary colours. They'll paint various colours with their tint, tone and shade.
MY ROOM (Perspective)	-To create an artwork using perspective to create a feeling of depth. -To be able to create a personal space in artwork	Examine depth and perspective in secondary sources. On A3 size paper using, one-point & two-point perspective sketch one room that is open to the viewer. Show a corner, ceiling, and floor of the room. Furnish the room with 3-4 objects drawn in perspective. Room can be a real or fantasy room, living room, kitchen, etc. Add furnishings such as rugs, windows, curtains, pictures, posters, etc.
DESIGN IN A RECTANGLE (Positive & Negative space)	-To understand the element of art - Space - To be able to understand and use the positive & negative space in design	Student will draw the drawing done by the teacher which illustrates the positive & negative space distinctly to understand these concepts and paint it with the colour scheme which will differentiate the positive & negative space.
STILL LIFE	-To develop the observation skills -To be able to record from the direct observation from the secondary source	Students will demonstrate their ability to observe the secondary source of a group of objects arranged in front of them and draw it realistically and demonstrate their knowledge of value with Painting.

	-To be able to understand& show in their work the composition, proportion, positive & negative space and various values in their still life.	
CHARCOAL DRG (MIX MEDIA)	-To be able to use the media (charcoal) other than their regular one - To understand the various characteristics & possibilities of charcoal -To learn how to use it for appropriate subject matter - To be able to understand the relation between the media, techniques , processes & theme	Student will create an artwork based on a given literary extract or a poem using the collage & charcoal
NATURE DRAWING (FRUIT/VEGETABLE)	-To develop the observation skills -To be able to record from direct observation from the secondary source -To be able to understand & show in their work the composition, proportion, positive & negative space and various values in their still life.	Students will demonstrate their ability to observe the group of objects arranged in front of them and draw it realistically and demonstrate their knowledge of colors & values with Painting.
DESIGNING THE LABEL FOR FRUIT JUICE TETRA PACK	-To be able to notice and observe the design in everyday life -To be able to create a design for applied purpose	Students will create a design for a fruit juice tetra pack based on the secondary sources & Paint it with the appropriate colour scheme

STILL LIFE (ARTIST STUDY)	-To be able to understand & appreciate the work of an artist -To be able to understand the media, techniques and processes used by the artist to create his artwork. -To be able to use those media, techniques and processes to replicate the artist's work.	Students will demonstrate their ability to observe the secondary source (Artist's reference) and draw it realistically and skills to replicate the artist's work with appropriate Painting techniques.