

CURRICULUM MAP 2021/22 - TOPICS COVERED EACH HALF TERM

KS3 – Year 8

ART	Portrait project. <i>Observing and recording, refining ideas.</i> Learning to scale and proportion the face correctly. Observational drawing skills. Pencil and tonal development. Learning about personal symbolism and abstraction through the work of a selection of artists. Understanding a variety of mark making skills through different media. Creating mini outcomes in the styles of different artists. Creating a personal response through the form of a self-portrait and thinking about the different ways in which artists can give the viewer insight into who they are. Looking at key artists.		3D Forms Project. <i>Learning from artists, experimenting with a range of media and techniques, understanding 3D forms.</i> Approaches to sculpture and abstraction. Learning to draw 3D objects and designing for sculpture. Students to work on developing skills in different media suitable for 3D forms. Working collaboratively to design and create a 3D form/s linked to an artist or an object. Group refinement and development of design. Creating a sculpture using mixed media techniques potentially including cardboard, papier-mâché, wire, string and found materials. Problem solving and team work. Creating mini outcomes throughout the project to understand techniques for building 3D forms. Creating a sculpture using mixed media techniques potentially including cardboard, papier-mâché, wire, string and found materials. Looking at key artists.		Animals and Expressionism <i>Observing and recording, creating a personal response based on a theme, artists and their own personal research.</i> Learning to draw animals and understand processes to aid this. Looking at texture and colour and developing skills in mark making to represent different animal textures. Emotive colour and layering for depth. Gathering primary and secondary research to build on their tools for creating a final outcome. Designing and understanding composition. Refining composition and colour schemes. Creating a final piece featuring an animal. Building their outcome from primary and secondary research that links to their chosen animal and its habitat. Characterisation and colour symbolism to be developed. Looking at key artists.	
COMPUTING	Developing for the web Use HTML and CSS to create webpage Understand how networks can be used to retrieve and share information	Representations from clay to silicon Understand how to represent numbers and text using binary digits Understand what a computer is in terms of how data is stored.	Mobile app development Use event driven programming to create an online gaming app Create software to allow computers to solve problems	Media: Vector graphics Create vector graphics through objects, layering and path manipulation Select and create a range of media including text, images, sounds, and video	Computing systems Explore fundamental elements that make up a computer system Understand what a computer is, and how its constituent parts function together as a whole	Introduction to python programming Apply the programming constructs of sequence, selection and iteration in Python Create programs independently to allow computers to solve problems
DANCE & DRAMA	Rehearsing Scripts: Noughts & Crosses 1.Theme 2.Status 3.Tension 4.Character Development 5.Sub-text 6.Off- text Exploration	Choreographing Dance: Developing dance movement 1.Unison 2.Canon 3.Refinement 4.Analyse 5.Formation 6Collaboration	Combining Production Elements: Grease the Musical 1.Designer 2.Technician 3.Jive 4.Production 5.Rhythm 6Genre	Devising Theatre 1.Devising 2.Improvisation 3.Hotseating 4.Forum Theatre 5.Verbatim 6.Writing in Role Students will create bespoke drama	Physical Theatre 1.Chair Duets 2.Frantic Assembly 3.Round -By- Through 4.Movement Director 5.Hymn Hands 6.Flocking Students will learn about what physical theatre means	Developing Empathy: Refugee Boy 1.Political Theatre 2.Empathy 3.Contemporary Theatre 4.Themes 5.Multi-roling 6.Playwright’s intention

	Students will look at a text that explores the theme of equality. Students will begin to create and rehearse a range of different characters from this challenging contemporary text	This scheme of work consolidates the skills learnt in Year 7 and introduces further choreographic skills. Students will create their own dance motifs.	Building on the Musical Theatre Scheme of learning they did in Year 7 students will learn about production design roles; sound/lighting design, costume/set design, direction, dancer, actor and choreographer.	performance responding to a range of different stimuli. Students will learn a range of improvisation skill.	and use strategies to explore this distinct theatre style. Students had a taster of this style in the Theatre Through Time scheme in Year 7 but this is a more focused look at the style.	Students will read and discuss this hard-hitting play. Students will be encouraged to build empathy for the characters in the drama in order to more fully step into their shoes and bring them to life on stage.
DT	Acrobat Toy Project Why is it important to be safe in the workshop? Why do we need to identify and understand user needs? What is ergonomics and anthropometrics? How can ergonomic/anthropometric data be help solve design solutions Why are finishes applied to materials? How to research and solve their own design problems How to develop a design solution How to analyse products using ACCESSFM Why do designers/manufacturers analyse products? How to use tools to safely shape, cut and drill handles and acrobat. (Chisels, mortice gauge, surform, spoke shave, drill) How to make toy make changes in movement/force and direction How to evaluate the acrobat toy? Analysing anthropometric data to help generate a design solution Creating designs for acrobat and handles Making handles and acrobat Research types of finishes, tools and toys			Steady hand game What is a design brief? How to analyse requirements of a brief? How to develop a design solution Why is it important to be safe in the workshop? What is the difference between a thermosetting and a thermoforming plastic How to analyse products using ACCESSFM How to shape HIPS using a mould and vacuum former How to fix components onto vero board How to solder components How to strip wire How to shape copper wire How to drill Why do designers/manufacturers analyse products? How to test circuits (fault find) Analysing a task Fixing components onto vero board & fixing components into case		
ENGLISH	Coram Boy Childhood in the 18th Century, mental health in the 18th century, issues of race and discrimination, issues of class, family and romantic relationships; descriptive language devices, structural features. Reading comprehension (fiction), analysing the effect of language devices, analysing the effect of structural features, writing creatively, writing analytically.	Voices Against Oppression Issues of identity, representation and oppression (race, religion, ethnicity, gender, sex, disability etc.); the language of oppression (exploitation, cultural imperialism, violence, powerlessness, marginalisation); the language of empowerment; rhetoric (ethos/pathos/logos); persuasive language features. Interpretation of viewpoint/perspectives and	Poetry Theme of growing up and childhood; relationships between parents and children; racism/oppression; poetic language devices, structural features. Analysing the effect of language devices, analysing the effect of structural features, writing analytically, comparing poems.	Short Stories Structural features in texts, short story form. Descriptive language devices, structural features. Analysing the effect of structural features, writing creatively.	Twelfth Night Issues of identity, gender, class/social hierarchy; historical context of Shakespeare/Elizabethan era. Analysing the presentation of character and theme through language choice, theatrical form (dramatic irony etc.) staging decisions, costuming etc.	

		societal norms now and in the past. Analysing the effect of persuasive language features and rhetorical devices; writing creatively/persuasively; performing creatively/persuasively.			
FOOD	Further Skills and Nutrients Hygiene and food safety Equipment – different types, uses and safety Temperatures and the 4C's Eatwell guide and the individual sections Healthy meals Macro and micro nutrients Fats, Protein and Carbohydrates Vitamins and Minerals What is on a recipe? Recap washing up Sugar in small cakes Sensory evaluation (cheesecake) Developing awareness of food safety and how this relates to a food lesson. Exploring healthy eating in more detail and creating own meals that link in all the boxes. Investigating the sugar in small cakes and how we can result to stay healthy. Looking at recipes and how they inform us, choosing wisely and encouraging others to do the same.	Multicultural Foods Seasonal foods Further food poisoning Why we cook foods? Cooking methods Using the Hob Viscosity of sauces Gelatinisation Food choice – religion Functions of ingredients What are multi-cultural foods? Cereals, milling, staple foods around world Sensory evaluation (curry) How does seasonality effect what we eat? What is viscosity and ways this is carried out in industry – why? Religion and educating themselves with different cultures and traditions. Understanding what causes food poisoning and the health risks. Adapting recipes to suit families with variety of different diets and nutritional needs.	Where does our food come from? What is food provenance? The process of farm to fork of different products – meat, dairy Food waste Sustainability Additives (science) Technological developments Special diets – vegetarian and vegan Allergies Primary processing Secondary processing Sensory evaluation Gain an in-depth understanding of how food is grown, reared, gathered and caught. To consider ethical and moral arguments to eating meat. Explore further about food waste and sustainability and how we can improve this in our meals/home. Look at the wider picture of processing foods.		
GEOGRAPHY	How is Asia being transformed? To know the regions and countries in Asia To know how deforestation is affecting the mountain biome To know where people live in Asia and why To understand how population pyramids are used by demographers To be able to compare population pyramids of two countries in Asia	Why do people live in hazardous areas? To know the difference between the different layers of the earth To understand the theory of plate tectonics To know what happens at different plate boundaries To understand the formation of different types of volcanoes To know the different volcanic hazards	Why is the Middle East an important world region? What is the Middle East like? How diverse is the physical environment of the Middle East? Where do people live in the Middle East and why? Why is the Middle East a major economic region of the world? Does oil affect development? How does geography lead to conflict? What is it like to be a refugee?	What are the physical landscapes in the UK? Why does the UK landscape vary? How do rivers erode landscapes? What river landforms are there and how were they formed? Why does a river flood? How can we reduce the risk of flooding? What processes shape the coast? What landforms are created by the waves? How is coastal erosion managed?	

	<p>To know what the conditions are in squatter settlements</p> <p>To understand how interdependent India is</p> <p>To understand why people are moving from rural to urban areas in China</p> <p>To understand the reasons for China's economic growth</p> <p>To be able to evaluate news articles investigating issues and change in Asia</p> <p>To know why Asia is becoming an important global economy</p> <p>To know the strengths and weaknesses of India and China as a BRICS economy</p> <p>Contextual knowledge of location (India and China)</p> <p>Cost/benefit analysis and judgement</p> <p>Graphical literacy.</p> <p>Concept of sustainability.</p>	<p>To understand why people, live near volcanoes</p> <p>To know how to reduce the impacts of volcanic eruptions</p> <p>To understand the formation and impacts of hotspot volcanoes</p> <p>To understand the causes earthquakes and tsunamis</p> <p>To understand the impacts and severity of the Haiti earthquake</p> <p>To know how to reduce the risks of earthquakes</p> <p>Contextual knowledge of location.</p> <p>Cost/benefit analysis and judgement.</p> <p>Graphical literacy.</p> <p>Evaluation of risk.</p> <p>Application of tier 3 terminology.</p> <p>Scientific methodologies (Earth Sciences)</p>	<p>What should we do about refugees?</p> <p>Contextual knowledge of location.</p> <p>Political geography.</p> <p>Cost/benefit analysis and judgement.</p> <p>Graphical literacy.</p>	<p>How do glaciers shape the landscape?</p> <p>How are landforms created by glaciers?</p> <p>What conflicts exist in glaciated areas?</p> <p>Contextual knowledge of location.</p> <p>Cost/benefit analysis and judgement.</p> <p>Graphical literacy.</p> <p>Evaluation of risk.</p> <p>Application of tier 3 terminology.</p> <p>Scientific methodologies (Geomorphology)</p>		
HISTORY	<p>Why did Henry break with Rome?</p> <p>Puritan/Catholic Reformation</p> <p>Heir</p> <p>Divorce</p> <p>Marriage</p> <p>Divine right of Kings.</p> <p>Dissolution of Monasteries</p> <p>Protestantism/Catholicism</p> <p>Treason/Glastonbury Abbey</p> <p>Skills Achieved</p> <p>Judgements/Causes and Consequences</p>	<p>How powerful was Elizabeth?</p> <p>Propaganda</p> <p>Portraits</p> <p>Court</p> <p>Divine right of Kings</p> <p>Marriage</p> <p>Rebellions/Plots</p> <p>Babington Plot</p> <p>Armada</p> <p>Parliament</p> <p>Monopoly</p> <p>Understanding</p> <p>Knowledge/ Applying to a higher order thinking and Evidence. To reach a judgement.</p> <p>Use of Sources and interpretation.</p>	<p>Civil War - Who was most to blame for the English Civil War, the Monarch or Parliament?</p> <p>Civil War</p> <p>Roundheads</p> <p>Cavaliers</p> <p>St James Prayer book</p> <p>Puritanism</p> <p>Links to NC – Case Study of changing Nature of Power in Britain.</p> <p>Debating History/Forming own opinions and the concept of Modern Democracy. Analysing Arguments</p> <p>Evidence/Significance/Similarity and difference.</p>	<p>Empire – How far was the British empire a force for good?</p> <p>Trade with the world</p> <p>Discovery of Land</p> <p>Expansion of Empire.</p> <p>East India trading Company</p> <p>Inhabitants experience of rule.</p> <p>Native/indigenous people.</p> <p>Repatriation</p> <p>Mughal Empire</p> <p>Understanding of Source Analysis/ Analysing different interpretations.</p> <p>Judgement of the enquiry question.</p> <p>To make comparisons to one other significant society/empire</p>	<p>Slavery – Why did so many people in Bristol want to bring down Colston's Statue?</p> <p>Slave Triangle</p> <p>Middle Passage</p> <p>Slave Auction</p> <p>Plantation</p> <p>Cotton Picking</p> <p>Domestic/Field Slaves</p> <p>Abolition</p> <p>Commemoration (Pero's Bridge)</p> <p>Memorial (Bristol and Colston Hall)</p> <p>Modern Slavery (Child Labour/Sexual Slavery/Domestic Slavery?)</p> <p>Students to understand the significance of Slavery.</p>	<p>Industrial Revolution – What has been the consequences of the Industrial Revolution?</p> <p>Industrialisation</p> <p>Urbanisation</p> <p>Factories</p> <p>Pollution</p> <p>Child Labour</p> <p>Applying Knowledge and compassion for Child Labour.</p> <p>Students use the evidence and analyse conditions to understand the effects and lasting impact.</p>

					To use sources of evidence to build up a picture about the treatment of slavery. Students to empathise with those effected and currently effected by Modern Slavery	
MATHS PLEASE NOTE: The units covered may not be in this order	Ratio Find equivalent ratios and cancel ratios to their simplest form. Write ratio in the form 1: n. Solve problems where one part of a ratio is known. Share in a given ratio. Solve problems where the difference between parts of a ratio are known. Convert between ratio, fractions and %	Algebraic expressions & brackets Form algebraic expressions. Work with negative numbers in expressions. Expand & simplify single brackets. Factorise expressions into a single bracket	Rounding & estimation Round to a given number of significant figures. Estimate answers to calculations by rounding to 1 significant figure. Understand the limits of accuracy when rounding	Directed number Calculate with negative numbers. Find powers and roots involving negative number	Formulae Review function machines from year 7. Substitute values, including negatives & decimals, into expressions & formulae	Coordinates & linear graphs Solve geometric problems involving coordinates. Plot linear graphs. Understand gradient and y-intercept. Find the midpoint of a line segment
	Angles Calculate angles in parallel lines. Calculate angles in special quadrilaterals	Measures of average & spread Choose the most appropriate average & use to compare distributions	Proportion Solve problems involving direct proportion (incl exchange rates, best buys, recipes, rates of change & unit conversion). Use conversion graphs	Metric measures Review converting metric unit	Map scale & drawing Draw & interpret scale diagrams. Interpret maps using scale factors and ratios	Data Collection & representation Understand sampling. Design questionnaires. Identify different types of data. Read & interpret grouped frequency tables. Complete & interpret two-way tables. Draw & interpret scatter graph
	Fractions and % Convert fluently between fractions, decimals and % including fractions greater than 1. Calculate fractions and % of amounts, including fractions	Similarity Identify similar shapes & understand the multiplicative nature of scale facto	Perimeter & area Calculate the area of a trapezium. Calculate the perimeter & area of compound shapes. Name parts of a circle & calculate circumference & area of a circle	Equation & inequalities Recognise equations, inequalities, formulae & identities. Solve more complex linear equations. Form & solve linear equations	Data representation Draw & interpret bar charts for grouped data, multiple & composite bar charts. Choose the most appropriate graph. Understand misleading graphs	Indices Calculate higher powers & roots. Know & use the laws of indices

	greater than 1 and % greater than 100%. Increase and decrease by a fraction or %, including use of decimal multipliers. Express one value as a fraction or % of another. Calculate % change. Find the original value before a % change. Solve problems involving fractions and %					
	Primes, multiples & factors Write numbers as the product of their prime factors	Calculation Solve problems involving adding, subtracting, multiplying & dividing whole numbers & decimals	Transformations Reflect a shape over a given mirror line. Rotate a shape about a given point. Translate a shape by a given vector. Enlarge a shape by a positive or unit fraction scale factor	Standard form Convert between normal numbers & standard form. Order standard form numbers. Calculate with standard form numbers with & without a calculator	Calculate with fractions Solve problems involving the 4 operations with fractions and mixed numbers. Add, subtract, multiply & divide simple algebraic fractions	Sequences Find missing terms in a sequence. Generate terms in a sequence given a rule or algebraic expression. Find the rule for the nth term of a linear sequence
	Probability Review & solve problems involving probability from year 7	Construction Construct triangles, quadrilaterals & other polygons. Construct angle & perpendicular line bisectors				
MATHS	Skills quiz at the end of each unit.					
MFL					Students who have chosen to do only one language in year 9 and students who have not chosen a language will focus on one language for 3 hours per week during the summer term.	
French	Holidays	Holidays (continued)	Festivals and Celebrations	Free time/media	My Area	My Area

German	School	School and work	Health	Health	Food and Shopping	Food and Shopping
Mandarin	School	School	Food and Drink	Food and Drink	Holidays	Holidays
Spanish	House and Home	Town	Daily Routine	Fashion	Festivals and culture / TV and Cinema	Culture, geography and politics of Central America – El Salvador
MUSIC	<p>West African Djembe Drumming Ensemble PERFORMANCE of an African inspired drumming COMPOSITION. APPRAISING. West African instrumentation, Develop understanding of musical elements. Identify their use in music. Singing traditional West African song chordal harmony</p>	<p>Variations PERFORMANCE of a theme using keyboards. COMPOSITION of variations APPRAISING Theme and Variation. Develop understanding of musical elements. Identify their use in music. Arrangement of a pop song using sequencing software. Midi input and sequencing.</p>	<p>Folk Music of the British Isles PERFORMANCE of a traditional Celtic folk piece of music. APPRAISING traditional pieces including time signatures and instrumentation. Develop understanding of musical elements. Identify their use in music. Singing folk song chorus chordal harmony</p>	<p>History of Music PERFORMANCE Keyboard skill development performance of a well-known classical piece of music. APPRAISING: Research project to include development of instruments and composers in the Baroque, Classical, Romantic Era's. Develop understanding of musical elements. Identify their use in music.</p>	<p>Pop Song Performance Ensemble PERFORMANCE. Development of instrumental and performance skills through a performance of a pop song. Development from Y7: Extended/larger palette of Chords & Harmony, 4+ Chords in G major/E minor LISTENING/APPRAISING Understanding instrumentation, structure, lyrics and context. Develop understanding of musical elements. Identify their use in music. Singing pop song chorus chordal harmony</p>	<p>Pop Song Composition Paired COMPOSING Pop songs. Chords, Harmony, Structure/Form, Texture, Melody, Instrumentation. Development from Y7: Extended/larger palette of Chords & Harmony, 4+ Chords in G major/E minor Pentatonic Riff and root note bass with passing notes. Midi input and sequencing. Using microphones, it captures audio of melody lines and or rapping LISTENING/APPRAISING Understanding instrumentation, structure, lyrics and context of pop songs. Develop understanding of musical elements. Identify their use in music.</p>
PE	<p>Invasion Technical Knowledge Developing passing, movement with/without ball, attacking and defending skills Game Knowledge Developing knowledge of rules to attacking and defensive strategies in small sided games and knowledge and understanding of basic tactics. Students will also develop Social, Emotional Physical and</p>	<p>Net and Wall Technical Knowledge Developing Forehand, backhand, serves and volley shots. Game Knowledge Developing knowledge of rules and attacking and defensive principles on a half-court game and knowledge and understanding of basic tactics. Students will also develop Social, Emotional Physical and</p>	<p>Health and Wellbeing Technical Knowledge Developing a greater understanding of Exercise/Training methods to improve Cardiovascular fitness and general and Health and Wellbeing. Students will also develop Social, Emotional Physical and Leadership skills throughout the curriculum</p>	<p>Striking and Fielding Technical Knowledge Developing bowling, batting, fielding and wicketkeeping (Throwing and Catching) skills. Game Knowledge Developing Knowledge of rules and developing tactics in small sided games. Students will also develop Social, Emotional Physical and Leadership skills throughout the curriculum</p>	<p>Athletics Technical Knowledge Developing a Range of Running, Jumping and Throwing Techniques. Performance Knowledge Developing knowledge of rules and tactics/strategies for individual events. Students will also develop Social, Emotional Physical and Leadership skills throughout the curriculum</p>	

	Leadership skills throughout the curriculum	Leadership skills throughout the curriculum			
PSHE	Changing Adolescent Body Intelligent Consumer Modern Banking Financial awareness		Challenging wrongs strategies for safely challenging stereotyping, prejudice, bigotry, bullying, and discrimination when they witness or experience it in their daily lives The right way (unhealthy coping strategies). Sex & Relationships		
Health Day					Self-defence Self-Esteem SunSmart
Specialist team	Drugs, Alcohol and County Lines				Mental Health First Aid training
RE	Respect: Anti-prejudice RE #notatourschool Prejudice and discrimination What is morality, why should we do the right thing? Racism and its history, with links to key humanist figures Homophobia and its history, with links to key humanist figures Ableism and its history, with links to key humanist figures Sexism and its history, with links to key humanist figures Literacy regarding key words surrounding prejudice and discrimination Assessing where stereotypes originate from in order to confront one's own prejudices Ability to evaluate different perspectives in order to address injustices	Judaism Coming of Age and Heritage The complexity of Judaism as a religion, culture and ethnicity Existence after death, fulfilment of the Mitzvot The Messiah, as a descendent from the House of David and a bringer of peace God and the covenant, religious festivals and celebrations derived from this Jews as the chosen people, instructions from the Torah and different interpretations thereof Literacy regarding Jewish teachings and beliefs Assessing different ways of life and traditions Ability to evaluate traditions in one's own life and analyse their importance	Historical Jesus What does the cross mean to Christians? Jesus as a historical figure, supported by secular facts and evidence Who was Jesus and what did he look like? Misconceptions on race and identity What is incarnation? How would this make Jesus unique to other prophets? Who was the messiah, how did (or how didn't) Jesus fulfil this role? Miracles of Jesus (Belief) Parables: The Good Samaritan Literacy regarding Christian teachings and beliefs surrounding Jesus Assessing different views of the existence of Jesus and separating fact from belief	Islam Special Places and Pilgrimage Islamic traditions, festivals and celebrations The importance of Mecca within the Islamic tradition Women and dress: addressing misconceptions The diversity of Muslims and the way they follow their faith Literacy regarding Islamic teachings and beliefs Evaluation of how the origins of Islam in Pre-Islamic Arabia shaped the religion and its practices Ability to evaluate why Islam thrived in Arabia Ability to critically evaluate prerequisites to religion and whether these have any implications on religious identity	

	Ability to exercise compassion, care and empathy particularly in social issues and realise one's own ability to change the world.	Ability to compare "Eastern" to "Western" faith's perspective on one's role in the universe, then evaluate one's own	Ability to evaluate why Christianity became such a successful faith Ability to analyse how one's faith may be strengthened through citation of stories	To challenge one's own perceptions (and/or judgements) of different traditions considering, and giving credence to, perspectives from those traditions themselves		
SCIENCE (please note - different classes will do the modules in a different order)	Cells and tissues Magnification Cell division and mitosis Organisation of specialised cells into tissues Structure of the skeleton Muscles Importance of bacteria in the human digestive system Spread of communicable disease and preventative measures	Reproduction and health Birth Infant nutrition Consequences of malnutrition- scurvy, kwashiorkor, rickets. Obesity Effects of alcohol Effects of smoking Effects of drugs- stimulants/ depressants/ hallucinogens/ narcotics Meiosis Embryo development Care of the foetus- role of placenta and umbilical cord	Variation and inheritance Monohybrid inheritance Simple genetics Punnett squares Genetic diseases	Life processes and ecology Lungs and breathing. Structure of alveoli The heart and circulation Diffusion Gaseous exchange Nutrients Food tests Diabetes and Controlling blood glucose Pyramids of number Pyramids of biomass Process of photosynthesis Leaf adaptations Limiting factors which affect rate of photosynthesis Food webs Flow of energy through a food chain/ web	Atoms and elements Electron shells/ energy levels Construction of diagrams showing the electron arrangement of first 20 elements Electron configuration Definition and examples of compound. "Strongly joined" Mixtures Definition and identification of pure substances Separation techniques Properties of metals	Chemical Reactions Reactivity series of metals Construction of symbol equations- use of symbols and chemical formulae Factors affecting reaction rate: Temperature, Pressure, Concentration, Particle Size Catalysts Combustion reactions Fire Triangle Reactions of acids with: metals, metal oxides, metal carbonates, alkalis. Neutralisation reactions Use of indicators to demonstrate everyday examples
	Particles and states of matter Energy in change of state Cooling curve of Octadecanoic Acid Solubility Definition of solute, solvent, solution Identification of solutions- clear	The Earth: Rocks and atmosphere The Rock Cycle. Identification of different processes: erosion, weathering, transportation, deposition, sedimentation, compaction, cementation etc. Igneous rocks Effect of cooling rate/ temperature on crystal size.	Forces and motion Weight vs mass. Calculation of weights with different values of g. Atmospheric pressure as the force of air molecules Pressure in liquids Up thrust/ buoyancy- floating and sinking Calculating pressure using force/area Acceleration as rate of change of speed. Use of the equation: $a = v - u/t$	Waves and energy Superposition. Constructive and destructive interference. Demonstration of standing wave with Ruban's tube. Human hearing rang. Definition and uses of infrasound. Definition and uses of ultrasound. Structure of the ear Function of each part	Space Exploring the solar system ISS, probes, rovers Is there life on other planets	Electricity and magnetism Static electricity Voltage (potential difference) Current as a flow of charge Models of current flow in a circuit Construction and evaluation of series and parallel circuits. Electromagnets Induced Magnetism

		Fractional distillation of crude oil	Velocity-time graphs	Description of sound conduction through inner ear Hearing loss Sound insulation Law of reflection Refraction Lenses Pinhole cameras Renewable energy resources Sankey diagrams Energy efficiency- use of "Energy saving" appliances Isotopes as a store of nuclear energy. Insulation as an "energy saving" measure		
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