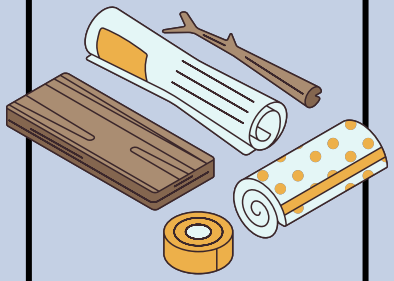
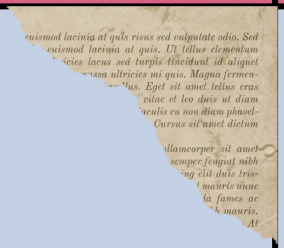
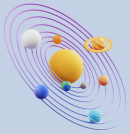
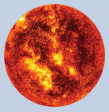
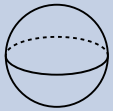
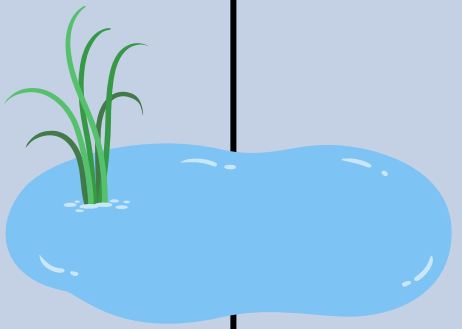
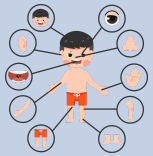
MTP Autumn Conflict	Engages with Debate	Vocabulary	Objectives	Objectives	Scientific Enquiry	Scientific Enquiry
KS1 *Materials*	 **Were the "Three Little Pigs" good builders?**	Object Material Hard Soft Stretchy Shiny Dull Rough Smooth	**Children know:** **EM2** The names of different materials, including wood, metal, plastic, glass, stone, brick and can talk about how we use these materials in our world. 	 **EM5** About the similarities and differences, strengths and weaknesses of different materials and can group them based on these qualities. **EM7** Buildings are built using a variety of materials.	**Which materials would improve the strength of a building?** **SE1** Observing closely using equipment Look closely at the different materials using equipment such as magnifying glasses.	**SE2** Identify and classify Group materials based on things such as their properties and best materials for building. **SE3** Perform simple tests Test the strength of different materials

MTP Autumn Conflict	Engages with Debate	Vocabulary	Objectives	Objectives	Scientific Enquiry	Scientific Enquiry
KS2 ***1st Half Term*** *Forces*	 **What would fall faster a stone or a piece of paper?**	Forces Gravity Gravitational pull Weight Mass Friction Air resistance Water resistance Buoyancy Streamlined Mechanism Upthrust	**Children know:** **F1** That unsupported objects fall towards Earth because of the force of gravity acting between Earth and the falling object **F2** The effects of air resistance, water resistance and friction, that act between moving surfaces. 	 **F3** Some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.	**What would make the best parachute?** **SE1** Children plan to make and test 3 parachutes and decide on variables. **SE2** Children drop parachutes and record measurements. 	**SE3** Children record data and results on a graph. **SE4** Use results to come to conclusions about what makes the best parachute. 
KS2 ***2nd Half Term*** *Earth & Space*	**If the earth spins why aren't we dizzy?**	Sun Star Moon Planet Sphere Spherical bodies Satellite Orbit Rotate Axis Geocentric model Heliocentric model Astronomer	 **Children know:** **ES1** About the movement of the Earth and other planets relative to the sun in the solar system. **ES2** About the movement of the moon relative to the Earth.	  **ES3** The sun, Earth and moon are similar to a sphere shape. **ES4** Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky 	 **How does the moon appear to change shape?** **SE1** Children keep a moon diary over a period of time (at least a couple of weeks) and then discuss their findings. **SE3** Each night record the shape of the moon they see, what the weather conditions are like and the time of evening.	 **SE4** Use the results to predict the next lunar cycle. **SE6** Children use scientific evidence to help them understand that the moon does not change shape like their evidence suggests. 

MTP Spring Plant Earth	Consortium Develop•Create•Engage Engages with Debate	Vocabulary	Objectives	Objectives	Scientific Enquiry	Scientific Enquiry
KS1 *Living things & their habitat and Animals & Humans*	**What would happen if all animals lived in the same place?**	Amphibians Birds Fish Mammals Reptiles Living Dead Life processes Habitat Depend Carnivore Herbivore Omnivore Food chain Food sources	**LH1** Know the differences between things that are living, dead and things that have never been alive. **LH2** Know that animals live in habitats to which they are suited. **LH3** Know how different habitats provide for the basic needs of different kinds of animals. **LH4** Know how animals depend on each other **LH6** Know animals get their food from plants and other animals **LH7** understand a simple food chain and identify and name different sources of food.	**AH1** The names of common animals including fish, amphibians, reptiles, birds and mammals **AH2** The names of some common carnivores, herbivores and omnivores. **AH3** Similarities and differences between different types of animals including pets. **AH4** Animals have offspring that grow into adults.	**Could the animals in the film Madagascar really live together?** **SE1** Observe closely Look closely at a range of different animals. **SE2** Identifying and classifying Group animals based on different criteria – e.g. appearance, diet and habitat.	 **SE4** Using their observations and ideas to suggest answers to questions. Answer the enquiry question giving reasons.

MTP Spring Plant Earth	Engages with Debate Consortium Develop•Create•Engage	**Vocabulary**	**Objectives**	**Objectives**	**Scientific Enquiry**	**Scientific Enquiry**
KS2	 **Would you rather live in a world with no plants or no animals?**	Characteristics Classify Mammal Amphibian Insect Bird Taxonomist Key Bacteria Viruses Fungi Microorganism Microscope Species	**Children know:** **LH1** The differences in the life cycles of a mammal, an amphibian, an insect and a bird. **LH2** How some plants and animals reproduce.	**LH3** That plants, animals and micro-organisms can be broadly grouped by their similarities and differences and observable characteristics.	 **Can you create a classification key for some pond animals?** **SE1** Children to plan how to find out which creatures are in the pond.	 **SE3** Use identification charts to identify and record the creatures they find in the pond. They then put them into their own classification key.

Summer Britain	Consortium Develop • Create • Engage — Engages with Debate	**Vocabulary**	**Objectives**	**Objectives**	**Scientific Enquiry**	**Scientific Enquiry**
KS1 *Animals & Humans*	**Which of our senses is the most important?**	Senses Body Sight Hearing Taste Smell Touch	 **AH7** Know the names of the different parts of the body and demonstrate this by drawing and labelling them.	**AH8** Know the 5 senses and which part of the body they link to 	**How far away can we hear noise?** **SE5** Asking simple questions Ask questions about the senses. Know how to find answers to their questions in a range of ways Eg internet, books, testing.	**SE3** Performing simple tests Set up a simple test. Find the answer to a question by testing how far away they can hear noises. Record their results. **SE4** Using their observations to suggest answers Use their observations and test results to reach a conclusion.
KS1 Living things & their Habitats	**Which plant is the most amazing of them all?**	Environment Condition Climate change Adapt Germination Shoot Seed dispersal Micro Microhabitat	**LH2** know how a couple of plants have adapted to live in harsh environments. (Eg plants in the artic have short roots because the ground is frozen) **LH3** know how different habitats provide for the basic needs of different kinds plants. Sustainability	**LH5** know a variety of different plants including some from different environments i.e. the Arctic and the desert. **LH5** know what a microhabitat is and can identify some in the local area	**What's the most unusual place you can grow a plant? SE3** Performing simple tests Set up a simple test to find out what conditions are needed for a plant to grow. Include sand and bark. Also very hot and very cold temperatures.	**SE4** Using their observations and ideas to suggest answers to questions. Making conclusions based on their test. **SE5** Asking simple questions and recognising that they can be answered in different ways Asking questions about what plants need to grow and thinking about how they will answer their questions.

***MTP Summer* Britain**	Engages with Debate Consortium	**Vocabulary**	**Objectives**	**Objectives**	**Objectives**	**Objectives**
KS2 *Animals Including Humans*	**Should we use cars for journeys of less than a mile?**	**Circulatory System**	**Children know:** AH1 Know how to Identify and name the main parts of the circulatory system	**AH2 K**now how to describe the functions of the heart, blood vessels and blood.	**AH3** Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.	**AH4** Describe the ways in which nutrients and water are transported within animals, including humans.
UKS2 YEAR 5 *Animals Including Humans*	**What happens to humans as they get older?**	Fertilisation Reproduce Sexual -reproduction Life cycle Adolescence Puberty Menstruation	 **AH5** Describe the changes as humans develop to old age.	**AH6** Know about hygiene routines and changes to the body during puberty (hair, sweat glands, emotional wellbeing)	 **AH6** Know the importance of keeping clean and how to maintain hygiene Know how to keep safe on line and where to report concerns about your own or someone else's personal safety.	**AH7** Name the main parts of the body including external genitalia (vulva, Vagina, Penis, testicles)
UKS2 YEAR 6 *Animals Including Humans*	**What happens to humans as they get older?**	Puberty Menstruation External genitalia Vulva Vagina Penis Testicle Human reproduction Conceive Hormones Online Safety	**AH6** Know how puberty affects males (erections and wet dreams) **AH6** Know about hygiene routines and changes to the body during puberty Including physical and emotional changes	**AH7** Know the external genitalia and internal reproductive organs in males and females 	**AH8** Know the changes in females (menstruation, menstrual cycle and menstrual wellbeing)	**AH9** Know how the process of puberty relates to human reproduction **AH10** know how babies are conceived and are born 

MTP Autumn Human Kind	Engages with Debate Consortium	Vocabulary	Objectives	Objectives	Objectives	Objectives
KS1 *Animals including humans & Seasonal Changes*	**How do humans survive?**	Develop Adult Life cycle Offspring Survival Young Diet Disease Germs Nutrition Pulse Healthy Exercise Hygiene Seasons Spring Summer Autumn Winter Weather Daylight	Children know: **AH4** That humans have offspring that grow into adults. **AH5** The basic needs of a human for survival. **AH6** That exercise, eating the right amounts of food and hygiene are important to stay healthy.	Children know: **SC1** The changes that take place throughout the seasons. **SC2** The length of the day varies throughout the year. **SC3** That the weather changes depending on the season.	Can you stop a germ from spreading? **SE5** Asking simple questions Ask questions about germs and find out answers through books, the internet and testing. **SE3** Perform simple tests Set up a test where pupils have glitter mixed with washing up liquid on their hands and then get on with their lesson. Later on look for the glitter around the room.	**SE4** Use their observations and ideas to suggest answers to questions. After looking at the amount of glitter everywhere come to conclusions about how germs spread.
KS2 ***Half term*** *Properties of Materials*	**How can we provide everyone with clean water?**	Materials Solids Liquids Gases Melting Freezing Solution Reversible Changes of State Mixture Filtering Evaporating Condensing Conductor Insulator Transparency Solubility Magnetic	**Children know:** **PM1** How to group materials based on their properties (hardness, solubility, transparency, conductivity, response to magnets) **PM4** The reasons why some materials are used for a particular purpose, based on evidence from tests. **PM2** Some materials dissolve in liquid to form a solution and could recover a substance from a solution.	**Children know:** **PM5** That dissolving, mixing and changes of state are reversible and can demonstrate this. **PM3** That mixtures can be separated through filtering, sieving and evaporating. **PM6** Some changes result in the formation of new materials and this kind of change is not usually reversible e.g. burning.	**Where would be the best place to put a solar still in the school grounds?** **SE1** Children set up 3 solar stills in different places in the school grounds. Think about the variables. **SE2** Take regular measurements of the amount of purified water being formed in the solar stills.	**SE3** Record their results using an appropriate graph. **SE5** Use results to draw conclusions about where to put a solar still.

MTP Spring Inventions	Engages with Debate Consortium	**Vocabulary**	**Objectives**	**Objectives**	**Objectives**	**Objectives**
KS1 *Everyday materials & Seasonal Changes*	**Do risk takers become inventors?**	Material Properties Suitability Smooth Bendy Waterproof Absorbent Transparent Opaque Squashing Bending Twisting Stretching Weather Seasons Spring Summer Autumn Winter Weather Daylight	**Children know:** **EM2** The names of a variety of materials that are used to make everyday items, including fabrics, elastic, plastic, metal, wood, paper, cardboard. **EM1** Objects are made from different materials. **EM4** Some materials can be changed by squashing, bending, twisting, stretching.	**Children know:** **EM3** Materials can be grouped based on their properties. **EM6** Why certain materials have been chosen to make items. **Children know:** **SC1** The changes that take place throughout the seasons. **SC2** That the weather changes depending on the season. **SC3** The length of the day varies throughout the year	**Your umbrella is made of glass is that a good idea?** **SE5** Ask simple questions and recognising they can be answered in different ways. Children ask questions about the strength and function of a chosen item to help them think about what qualities their material needs to have.	**SE3** Perform simple tests Test materials using different criteria to find the most suitable one for the job. **SE6** Gathering and recording data to help in answering questions Record how each material coped with each criteria to help them come to a conclusion.
KS2 ***1st Half Term*** *Light*	**Does light only travel in straight lines?**	Light source Reflection Incident ray Reflected ray The law of reflection Refraction Visible Spectrum Prism Shadow Transparent Translucent opaque	**Children know:** **L1** that light appears to travel in straight lines **L2** how to apply the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye	**Children know:** **L3** that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. **L4** How to apply the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	**Can you make light bend?** **SE1** Set up an investigation to explore how mirrors allow light to travel round corners (plain, convex, concave)	**SE3** Attempt to make light move through a simple maze **SE5** Explain reasons for the placements of mirrors and use conclusions to help answer the big question,

MTP Spring Inventions	Engages with Debate Consortium	Vocabulary	Objectives	Objectives	Objectives	Objectives
KS2 2nd Half Term *Electricity*	**If electricity is so dangerous should we still use it?**	Circuit Symbol Cell/battery Current Amps Voltage Resistance Electrons	**Link to (RSHE) how to be safe around electricity** **Children know:** **E1** how to associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.	**E2** Know how to compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. **E3** Use recognised symbols when representing a simple circuit in a diagram	  **Can you build a useful circuit?** **SE1** Children decide on the circuit they would like to make and make a plan. **SE3** They draw their circuit using the correct symbols. 	 **SE5** Make an advertisement to promote their electrical product

MTP Summer Civilisations	Engages with Debate Consortium Develop•Create•Engage	**Vocabulary**	**Objectives**	**Objectives**	**Objectives**	**Objectives**
KS1 *Plants & Seasonal Changes*	 **Do big plants come from big seeds?**	Wild plants Garden plants Weed Deciduous Seed Bulb Water Sunlight Temperature Nutrition Roots Stem Leaves Flowers Petals Fruit	**Children know:** **P1** The names of different types of plants, including common wild and garden plants, deciduous and evergreen trees. **P2** The basic structure of plants, including trees. **P3** That seeds and bulbs have food stored inside them so they can begin to grow. **P4** That most seeds and bulbs need water but not light to begin growing. **P5** How seeds and bulbs grow into mature plants.	**Children know:** **SC1** The changes that take place throughout the seasons. **SC2** That the weather changes depending on the season. **SC3** The length of the day varies throughout the year.	**Does the size of the seed affect the size of the plant?** **SE1** Observe closely, using simple equipment Look closely at different plants in the environment. Cut up a plant to see what is inside. Look closely at a variety of seeds and bulbs. Watch plants grow from bulbs and seeds.	**SE2** Identify and classify Group plants in different ways. Group seeds and bulbs. **SE4** Use their observations and ideas to suggest answers to questions. Plant some bulbs and a selection of different seeds. *What do children notice about them as they grow?*
KS2 *Evolution and Inheritance*	 **Which is the camel's most important feature?**	Offspring Inheritance Variations Characteristics Adaptation Habitat Environment Evolution Natural selection Fossil Adaptive traits Inherited traits	**Children know:** **EH1** that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	**EH2** Know that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. **EH3** Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution	**Could animals from the Galapagos Island live anywhere else?** **SE1** Plan an enquiry to find out which animals live in the Galapagos Islands and their survival needs. Look at whether these animals live anywhere else. Have they adapted**?**	**SE5** Make conclusions about how these animals came to be on the Galapagos Islands and how they have adapted to environments. **SE6** Back up theories using scientific evidence.

MTP Summer Civilisations	Engages with Debate Consortium Develop•Create•Engage	**Vocabulary**	**Objectives**	**Objectives**	**Objectives**	**Objectives**
UKS2 YEAR 5 *Animals Including Humans*	**What happens to humans as they get older?**	Fertilisation Reproduce Sexual -reproduction Life cycle Adolescence Puberty Menstruation	 **AH5** Describe the changes as humans develop to old age.	**AH6** Know about hygiene routines and changes to the body during puberty (hair, sweat glands, emotional wellbeing)	**AH6** Know the importance of keeping clean and how to maintain hygiene Know how to keep safe on line and where to report concerns about your own or someone else's personal safety.	**AH7** Name the main parts of the body including external genitalia (vulva, Vagina, Penis, testicles)
UKS2 YEAR 6 *Animals Including Humans*	**What happens to humans as they get older?**	Puberty Menstruation External genitalia Vulva Vagina Penis Testicle Human reproduction Conceive Hormones Online Safety	**AH6** Know how puberty affects males (erections and wet dreams) **AH6** Know about hygiene routines and changes to the body during puberty Including physical and emotional changes	 **AH7** Know the external genitalia and internal reproductive organs in males and females	 **AH8** Know the changes in females (menstruation, menstrual cycle and menstrual wellbeing)	 **AH9** Know how the process of puberty relates to human reproduction **AH10** know how babies are conceived and are born
2024-2025 **2026-2027**	**Are all mammals pregnant for the same length of time?**	Fertilisation Prenatal Gestation Reproduce Asexual reproduction Sexual reproduction Life cycle Adolescence *Puberty* *Menstruation* Adulthood Life expectancy	**Scientific Enquiry**		**Scientific Enquiry**	
UKS2 Year 5/6 Animals Including Humans			**How quickly does a human baby develop in the womb compared with different animals?** **SE2** Research online and record measurements of a baby and an animal at different stages of development. **SE5** Present findings by creating a presentation.  		**SE1** Plan which animal gestation periods to compare with a human. **SE6** Use scientific research from the internet to get measurements and timings of different animals and babies.