Subject Sequencing Science

Year Group								
EY	How I have changed over time. What physical features and what I could do. (milestones)	How do we keep healthy: Diet Keeping active	Who are the people who help us to stay safe and healthy? Police/ fire brigade/ doctors/dentist etc…	What are teeth for and why do they need to be cleaned?	Which foods are good for teeth, which are not good for teeth?	How do you clean your teeth?		
EY	Autumn walk. What happens in autumn to the plants and animals?	Comparing seasons: Leaves on trees falling and changing colour during the seasons.	Comparing seasons: What are the weather conditions like in the seasons?	Comparing seasons: What do we do when the weather changes? Clothing, habits etc…	Comparing seasons: What do animlas do as the weather chages? Look at forest and urban animals?			
EY	What is a material and what is an object? Naming different materials.	What properties do materials have? What materials are good at holding weight? Firm, hard, soft Sorting materials.	Predicting what materials will be strong and will hold weight.	Materials that are used to build houses and why?		Fair test for houses and which will hold the most weight.		
EY	What are dinosaurs? Namews of dinosaurs.	Classifying dinosaurs: Carnivore/ herbivore/ omnivore						
EY	Grouping things that are living and non living. How do we know things are alive?	Grouping into plants and animals.	How living things grow Photos and videos of a chick hatching and turning into a hen.	How living things grow. Recording as a life cycle diagram.	How living things grow. Growing a sunflower, or other plant. What it looks like.	How living things grow. Recording the life cycle as a diagram.		
EY	Plant sunflower seeds ready for growth. BUY 4 GROWN SUNFLOWERS	What do we need for the seeds to turn into a healthy plant?	Observational drawings: Setting up experiment – Hwere do you think the plants will grow the best? Why	Observational drawings: Set up	Observational drawings: Draw seed germinating	Observational drawings: Draw flower growing		

Subject Sequencing Science

EY	Look at rainforest What will you see? What would you hear? How would it make you feel? How are animals adapted?	Compare rainforest with arctic. What will you see? What would you hear? How would it make you feel? How are animals adapted for the arctic?	Compare desert with rainforest and arctic. What will you see? What would you hear? How would it make you feel? How are animals adapted to the desert.	Compare uk with arctic, desert and rainforest. What will you see? What would you hear? How would it make you feel? How are animals adapted in the UK?				
EY	Melting and freezing	How clouds let go of water	Evaporation. How water disappears in hot conditions.					
1	Looking at toys – what are they and what material are they made from? Metal Wood Plastic Fabric - What are their properties?	Grouping familiar objects made from the same materials. Describe the materials using scientific language: soft, hard, stretchy, smooth, bendy	What is the difference between man made and natural materials. Name several man made and natural materials	Investigating different liquids. What is a liquid and what are the names of some common piquids/	Choosing materials suitable for a purpose: What would make a good umbrella? Swimming costume? Lining for a pet bed?	Save the Egg Part 1… Discuss and set up experiment. What would be the best material to protect and egg if it fell? What do we currently use?	Save the egg part 2… Complete experiment and record results	Save the egg part 3… Discuss results and make conclusion.
1	Dissect and label the parts of a plant.	PLANT SEEDS READY TO OBSERVE Start the observation document using scientific drawings.	Why do we grow different plants and trees? To look nice, to help the environment (attracting insects), to use for food. Look at vegetable patches, flower gardens etc… Discuss the difference between grown and wild flowers and weeds. Name different common plants. OBSERVE SEED GERMINATING & DRAW	Deciduous and Evergreen trees. Identify different types and explain which lose their leaves and why. OBSERVE SEED GROWING MEASURE AND DRAW	Drawing/ Labelling parts of a tree. **Exceptionality – Tree hunt during our local walk. Deciduous and evergreen.** OBERVE PLANT GROWING MEASURE AND DRAW	Vertebrate or not Classifying vertebrates an introduction to the 5 groups.		
1	Grouping animals: What is a mammal? Mammal or not?	Grouping animals: What are fish? What are Birds?	Grouping Animals: Reptile or amphibian. Using a simple Key.	Carnivore, herbivore, omnivore?	What is a human? What are the names of the body parts?	What are the 5 senses and which body part is associated with them?		

Subject Sequencing Science

1	Materials Describing materials: Hard/soft Stretchy/stiff Shiny/dull Rough/smooth Bendy/not bendy	Materials Describing materials Absorbent/ non Floating/sinking Waterproof/not	Materials Describing materials: Transparent/opaque	Describing materials: What would the best material be for an object and why?				
1	Weather and changes: How weather changes over the 4 seasons, how the day varies according to the season USE DATA	Weather and changes: Describing different weather conditions. Introduce symbols and match to the different weather types – create a weather forecast. COLLECTED	Weather and changes: Recap the 7 continents and discuss how weather is different in these continents. Use symbols to show the different types of weather in each continent. OVER THE YEAR.					
2	Properties of materials: What materials are different objects made from? Vocab lesson. Matching objects to materials. PRACTICAL .	Properties of materials: What materials would different objects be made from and why? Vocab lesson Looking at objects and what materials they are made form and why it is suitable.	Properties of materials: Some objects are made from more than one material. Investigate and reason as to why: Tennis racket Spoon with plastic handle Umbrella Children label.	Properties of materials: Who invented some of the most important materials over time? Look at the invention of John Dunlop and Stephanie Kwolek.	Properties of materials: Which materials are the most absorbent? Spill a drink and show materials which would be good for mopping up. Why? Plan and design a test including what equipment is needed.	Properties of materials: Test – experiment and results.	Properties of materials: Test – Review results and conclusion.	
2	Changing Shape: What materials are good at bending? Stretching? Twisting and squashing?	Changing Shape: Cont lesson 2: Grouping objects and materials and describing how their shape can be changed.	Changing Shape: What happens when we add ingredients to a dough? Add liquid = add flour = … Children observe and discuss the changes in the material					

Subject Sequencing Science

2	Living Things and their Habitats: What does living mean? What do we have in the world that are living things? Plants and animals	Living Things and their Habitats: What happens when things die? For things to die they needed to be once alive. What things have never been alive? Group and sort.	Living Things and their Habitats: What is a habitat? Naming and describing the features of different habitats.	Living Things and their Habitats: Which animals live in different habitats? Why do they live there? How are they adapted to their environment?	Living Things and their Habitats: Micro – habitats – what are they and what lives in them?	Living Things and their Habitats: How are plants adapted to different environments and habitats?	Living Things and their Habitats: Simple food chains x 2	
2	Growing plants: Plant seeds and bulbs. Experiment – light/ food/ water: set up experiment.	Growing plants: What do plants need to survive? Parts of plants and their function. Record findings experiment.	Growing plants: Record findings of experiment.					
2	Animals and Humans: Animals have young that grow into adults.	Animals and Humans: How humans change through childhood. Measuring and observing children	Animals and Humans: What are the basic needs of animals for survival.	Animals and Humans: Importance of a healthy diet. What is a healthy diet.	Animals and Humans: Importance of exercise. Recording pulse rates.	Animals and Humans: Keeping clean – how to keep good hygiene.		
3	Rocks and Soils: What rocks do we know? How are rocks and soils formed? Completed in week 3 USE STEM LEARNING	Rocks and Soils: Characteristics of different types of rocks. USE STEM LEARNING	Rocks and Soils: Using a key to identify different rocks. USE STEM LEARNING	Rocks and Soils: Types of weathering USE STEM LEARNING	Rocks and Soils: Testing characteristics of different rocks. Making detailed observations. USE STEM LEARNING	Rocks and Soils: Testing characteristics of different rocks. Making detailed observations. USE STEM LEARNING		

Subject Sequencing Science

3	How do different objects move on different surfaces? Revise forces. Some forces need contact – magnets don't.	Why are materials attracted to magnets?	Materials that are attracted to magnets, materials that repel. Making predictions about which materials will/won't attract.	Magnets in everyday items and objects.	Magnets have poles. Experimenting with strengths of magnets.	Magnets have poles. Experimenting with strengths of magnets.		
3	Light: Light sources – identify and group. What is darkness?	Light: How we see. How light travels.	Light: Reflective surfaces – shining light and the impact of the surface. Investigate	Light: How shadows are formed – making shadows.	Light: Changing the size of shadows - experiment	Light: Changing the size of shadows - experiment		
3	Diagram of parts of plants and function Dissect a plant.	Leaves and leaf function. photosynthesis	Importance of flower. Reproduction of flowering plant. Dissect a flower	Draw life cycle of a flowering plant. Importance of pollination. Relate to BEE movie	Different types of seed dispersal. Draw diagrams.			
3	Moving and Feeding: Humans change as they grow.	What do Humans and animals need to grow. Humans get their nutrition from food and drinks.	Moving and Feeding: Humans have a skeleton	Moving and Feeding: Muscle structure. How humans move.				
4	Electricity: Where does electricity come from and what things does it make work? National grid and appliances	Electricity: Constructing a simple circuit to light a bulb. Common reasons why a circuit won't work. Investigate.	Electricity: Constructing circuits to make devices work. Naming basic parts. Drawing accurate diagrams to represent the circuit	Electricity: Investigating complete loops. Making a circuit with a switch. Investigate different switches. Draw diagrams accurately.	Electricity: Conductors and insulators. Using a Venn diagram. Setting up a fair test – answering the question: Which materials would make a good switch.	Electricity: Working safely with electricity. What dangers does electricity present? Make a safety poster.		
4	Sound: How are sounds made? Vibrations. What is a vibration and how do we record them? How we can see vibrations. Demonstrate the waves using a tuning fork.	Sound: When sounds are made they travel in waves to our ears. How we hear sounds – diagrams of waves and the ear.	Sound: Changing sounds using different instruments. Pitch of sounds. Investigate bottles, saucepan lids, elastic bands. Use log boxes to record.	Sound: What materials would be best at muffling sounds? Plan and design and experiment. Use data loggers.	Sound: Carry out fair test and collect results. Evaluate and conclude before presenting to class.			

Subject Sequencing Science

	3 Tuning Fork Experiments to Explore Sound with Students | Extended Notes							
4	Human Nutrition: How do different animals eat? What helps them to do this?	Human Nutrition: Parts of the digestive system.	Human Nutrition: Parts of the digestive system – practical experiment.	Human Nutrition: Teeth and their functions.	Human Nutrition: The structure of teeth – importance of oral hygiene. Order dental kit for class.	Human Nutrition: Food chains – producers, predators and prey.	Human Nutrition: Food chains – producers, predators and prey.	
4	Change of State: Identifying and categorising different materials as solid, liquid gas.	Change of State: Powders and granules – investigate magnified images	Change of State: Properties of solids and liquids – experimenting with pouring and the shape and volume of liquids.	Change of State: Heating and cooling materials and how they change.	Change of State: Investigating melting points. Which fats melt the fastest? Investigation.	Change of State: The water cycle – evaporation and condensation, how this relates to temperature.		
4	Living things and Dangers to Living Things: Grouping vertebrates and invertebrates. Classifying vertebrates – based on their features.	Living things and Dangers to Living Things: Grouping vertebrates and invertebrates. Classifying invertebrates based on their features - insects arachnids and molluscs	Living things and Dangers to Living Things: Plants Identifying plants in the local environment	Living things and Dangers to Living Things: Plants Sorting and classifying flowering and no- flowering plants	Living things and Dangers to Living Things: How humans have impacted on the environment positively.	Living things and Dangers to Living Things: How humans have impacted on the environment. Link to Rainforest. How humans can pose dangers to living things.		
5	Earth and Space:	Earth and Space: Day and night.	Earth and Space:	Earth and Space:	Earth and Space:	Earth and Space:		

Subject Sequencing Science

	What is the Earth? Construction of Earth. The Earth, and all the planets are spherical.	Time zones across the world.	What is the moon? Moons of other planets.	The solar system – Categories of planets: rocky, gaseous. All planets are spherical.	Space adventures – Tim Peake.	Scientists of space – Ptolemy, Alhazen and Copernicus.		
5	Forces: Different types of forces – how do they act on objects? A force is a push or pull.	Forces: Air resistance. What is air resistance and how do we design things to reduce the resistance?	Forces: Water resistance. What is water resistance and how do we design things to increase or decrease water resistance?	Forces: What is a force? What forces are in action around us? Learn about gravity and how it was discovered.	Forces: What is friction and how does it work? Why is it so important? Explore examples of friction: ice skating, motor racing, running etc..	Forces: What type of surface is best for increasing or decreasing friction? Plan and design experiment using cars and ramps.	Forces: Levers and pulleys. How they enable us to lift heavy loads. How they work.	Forces: Air and water resistance- who do they work and how are things designed to decrease the resistance so things can go faster?
5	Types of Change: Grouping different materials according to properties – hardness, solubility, transparency, conductivity, response to magnets.	Types of Change: Making solutions and separating mixtures.	Types of Change: Changes made by melting and freezing.	Types of Change: Separating materials using separation, filtration, sieving and magnets: recycling plant technology.	Types of Change: Evaporation – set up fair test and learn about the process of evaporation. Children write prediction for test.	Types of Change: Changes in materials when making bread – mixing, rising, baking etc… Recognising changes that are reversible and irreversible.	Types of Change: Fair Testing Method equipment Evaporation results Conclusion	
5	Life – cycles: Life cycle of a mammal – Not human.	Life – cycles: Life cycle of a reptile.	Life – cycles: Life cycle of a bird. Compare life cycles.	Life – cycles: Reproduction in plants – sexual and asexual	Life – cycles: Reproduction in humans	Life – cycles: How humans change from conception to old age.	Life Cycles: The life and work of David Attenborough	

Subject Sequencing Science

5	Materials Revisit : Comparing and sorting different materials according to properties. Testing materials for hardness and plotting results.	Materials Revisit : Thermal insulators – Experiment and recording results. What materials are best suited for different purposes?	Materials Revisit: Forming and separating mixtures. Forming and separating mixtures.	Materials Revisit: Reversible and irreversible change Reversible and irreversible change.				
6	Light and Sight: Where does light come from? (natural/artificial)	Light and Sight: Light appears to travel in straight lines. (Ray model of light)	Light and Sight: Why we need light and how we are able to see (parts of the eye)	Light and Sight: Types of materials – transparent, translucent, opaque.	Light and Sight: Creating and changing shadows. Experiment	Light and Sight: Creating and changing shadows. Experiment	Light and Sight: Using data loggers to see which materials let the most/ least light through. Predict and test.	Light and Sight: How does a rainbow occur? How does a periscope work?
6	Evolution and Inheritance: Lesson 1 What is evolution and why does it occur over time? Lesson 2 Show diagrams of human evolution. If children could choose how humans evolved next, what would they choose and why?	Evolution and Inheritance: Lesson 3 How do we know about evolution? Look at the study of fossils and remains from plants/ animals. Lesson 4 Famous scientists who discovered evolution. Darwin's study of birds around the world and how they have adapted. | STEM	Evolution and Inheritance: Lesson 5 How are other animals adapted to live where they do? Lesson 6 Driven to extinction? What happens when animals cannot adapt? Investigate the dodo and present on an endangered species of their choice.	Evolution and Inheritance: Lesson 7 What damage do we cause as humans and				

Subject Sequencing Science

6	How living things are categorised into groups. Look at plants and animals. Use simple keys.	Micro – organisms – what they are and how they are categorised. Edward Jenner	Categorising according to characteristics. Give explanations as to why they have chosen a category.	Categorising according to characteristics. Give explanations as to why they have chosen a category.				
6	Circuits: Making a bulb light up! Conductors and insulators. Using a switch.	Circuits: Symbols for electrical components. Drawing accurate diagrams with symbols.	Circuits: Circuit diagrams in industry. Label diagrams and recognise when a diagram is incorrect/ the circuit is not complete.	Circuits: Resistors – how the thickness of wire effects the brightness of a bulb.	Circuits: Fair testing how to make bulbs brighter.	Circuits: Fair testing how to make buzzers louder.		
6	Animals Including Humans: Parts of circulatory system.	Animals Including Humans: Function of the heart, blood vessels and blood.	Animals Including Humans: How nutrients are transported around animals and humans. Impact of diet and exercise on health.	Animals Including Humans: Monitoring pulse rates during exercise	Animals including Humans: Impact of drugs/alcohol/medicines/vaping on health.			