

Science Curriculum Key Questions UKS2

Year 5	<u>Revision of Year 4</u> <u>Properties and changes in materials</u> Can you describe some the properties of materials that can be used to compare and group a range of materials? Can you explain the difference between electrical and thermal conductivity? Can you explain some ways that magnets are used in rea life? Are all metals magnetic? Explain using examples. When testing materials why are comparative tests important?	<u>Properties and changes in materials</u> What is a solution and how is it formed? How can you recover a substance from a solution? Can you describe an irreversible change? Can you describe the process of filtering? Can you give an example of a reversible change that would involve mixing? Can you describe a process that would result in a change and new materials as a result? What are the properties of a liquid? How can solids, liquids and gases be classified?	<u>Forces</u> What is gravity and how does it work? How can you improve water resistance? Can you give an example of when a high amount of air resistance is needed? Explain why. How do some mechanisms allow a smaller force to have a greater effect? How does the surface area and weight of an object affect the gravitational attraction? Why is Isaac Newton significant in the field of forces?	<u>Earth and Space</u> Can you name the planets in our solar system in order from the sun? How does the earth and the other planets move around the sun? How are seasons created? How does the moon move in relation to the Earth? Why do day and night occur (in relation to the moon, sun and earth)? What does ‘The sun, earth and moon are approximately spherical bodies’ mean? What are the different phases of the moon? Why is the time of day different at different places on earth?	<u>Light</u> How does light travel? How are objects are seen by the eye? Why do shadows have the same shape as the objects they are cast by? How can different colours of light be created? Can you explain what a periscope is and how it works? What is a rainbow and how is it formed? What effect does water have on the appearance of an object?	<u>Animals including humans</u> Can you describe some of the significant changes that happen as humans develop to old age? Can you name three changes that happen to a human during puberty? What is a gestation period? Can you give two examples of animals gestation period and why they are different?
	<u>Revision of Year 5</u> <u>Living things and their habitats</u> Can you describe the features of an amphibian, and give examples? Why is ‘mammal’ a broad group of classification? Why is classification important? Which characteristics are used when classifying plants and animals? Give examples. What is the name of the given to a scientist who studies plants and how are plants classified? Can you explain what a branching tree and how it is used? Who is Carl Linnaeus and what is he famous for?	<u>Evolution and Inheritance</u> What is a palaeontologist? Why are fossils useful in science? Describe how a living thing has changed over time. Why do living things produce offspring of the same kind? Are offspring are always identical to their parent? Can you give any examples of identical offspring? Explain why. Can you explain how variation in an offspring can make an animal less able to survive in a particular environment? Using a specific plant as an example, how has it adapted to suit its environment? What is evolution? Can you give examples? What are the advantages and disadvantages to how humans have evolved?	<u>Electricity</u> What is a series circuit and explain how it works? What is the difference between a simple and a parallel circuit? How is the brightness of a bulb linked to the voltage/number of cells used? How can changing the voltage of a battery effect different compenents? What factors in a circuit can affect the loudness of a buzzer? Can you draw and label three circuit symbols? What is a conductor (give three examples) and explain why they are useful? Can you describe two necessary precautions for working safely with electricity? Can you explain how to change components in a circuit (working systematically)?	<u>Animals including humans</u> Can you identify and describe the main parts of the human circulatory system? What are the functions of the heart and blood vessels in the human body? Can you describe the effects that diet, exercise and lifestyle have on the human body? How are the nutrients and water transported around the human body? What is a pulse and how does it work? What is a pulse used for? Can you explain how three different parts of the human body work and how they depend on each other?	<u>Revision of all KS2 Science</u>	

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