

APS CURRICULUM	SCIENCE	YEAR 5/6	YEARLY OVERVIEW – YEAR A	
Knowledge, Skills and understanding breakdown				
National Curriculum Links	Earth and Space Autumn Term	Forces and Magnets Autumn Term	Evolution Spring Term	Animals incl. Humans Summer Term
Earth and space Pupils should be taught to: - Describe the movement of the Earth, and other planets, relative to the Sun in the solar system - Describe the movement of the Moon relative to the Earth - Describe the Sun, Earth and Moon as approximately spherical bodies - Use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky Forces Pupils should be taught to: - Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object - Identify the effects of air resistance, water resistance and friction, that act between moving surfaces	- Can they identify and explain the movement of the Earth relative to the sun? - Can they explain how seasons and the associated weather is created? - Can they identify and explain the movement of the moon relative to the Earth? - Can they explain the size, shape and position of the earth, sun and moon? - Can they explain how night and day are created and use diagrams to show this? - Can they explain how planets are linked to stars?	- Can they explain what gravity is and its impact on our lives? - Can they explain why a wheeled object that is initially pushed will slow down and stop? - Can they explain the impact of friction on a moving object? - Can they explain the effect of drag force on moving objects? - Can they explain how force and motion can be transferred through gears, pulleys, levers and springs? - Can they explain how the force of magnetism works? - Can they describe how magnetism is used in everyday objects? - Can they describe magnets as having two poles? - Can they make predictions associated with whether two magnets will attract or repel depending on which poles are facing?	- Can they give reasons for why living things produce offspring of the same kind? - Can they give reasons for why offspring are not identical with each other or with their parents? - Can they explain the process of evolution and describe the evidence for this? - Can they begin to appreciate that variation in offspring over time can make animals more or less able to survive in particular environments? - Can they talk about the life of Charles Darwin?	- Can they identify and explain the function of the organs of the human circulatory system? (heart, blood vessels, blood, blood pressure, clotting) - Can they identify and explain the function of the organs of the human gaseous exchange system? (lungs, nose, throat, bronchi, bronchial tubes, diaphragm, ribs, breathing) - Can they name the major organs in the human body? - Can they locate the major human organs? - Can they make a diagram that outlines the main parts of a body?

- Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. Evolution and inheritance Pupils should be taught to: - Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago - Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents - Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. Animals, including humans Pupils should be taught to: - Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood - Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	More Challenging			
	Earth and Space	Forces and Magnets	Evolution	Animals incl. Humans
	- Can they compare the time of day at different places on the earth? - Can they create shadow clocks? - Can they begin to understand how older civilizations used the sun to create astronomical clocks? - Can they explore the work of some space pioneers? (Galileo, Copernicus, Neil Armstrong)	- Can they describe and explain how motion is affected by forces? (including gravitational attractions, magnetic attraction and friction) - Can they design very effective parachutes? - Can they work out how water can cause resistance to floating objects? - Can they work out how magnets are useful in an everyday context? - Can they work out the link between magnets and the North and South poles?	- Can they explain how some living things adapt to survive in extreme conditions? - Can they analyse the advantages and disadvantages of specific adaptations, such as being on two rather than four feet? - Can they begin to understand what is meant by DNA?	- Can they explore the work of medical pioneers, for example, William Harvey and Galen and recognise how much we have learned about our bodies? - Can they compare the organ systems of humans to other animals? - Can they make a diagram of the human body and explain how different parts work and depend on one another?

Describe the ways in which nutrients and water are transported within animals, including humans.				
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