

Orton Wistow Primary School – Curriculum Plan

Subject : Science – Animals including Humans

Year : 5

Term : Autumn



Vocabulary

Knowledge

Understanding

Skills

What children will know

What children will understand

What children will be able to do

Define the word and include etymology if useful.

Learning	Teaching	Assessment
Remembering	Telling	Testing

Learning	Teaching	Assessment
Practising	Coaching	Observing

Learning	Teaching	Assessment
Reflecting	Facilitating	Evaluating

Reproduce – to produce young.

Sexual reproduction – a process where two parents – one male and one female – are required to reproduce new life.

Asexual reproduction – a process where one parents produces new life.

Puberty - the period during which adolescents become capable of reproduction.

Adolescence - The period that follows the start of puberty, during which a child develops into an adult.

Fertilisation – the process of the male and female sex cells fusing together.

Gestation - The development of an animal inside its mother's womb.

Menstruation – the process where the female body discharges the lining of the uterus. This happens approximately once a month.

Describe the changes as humans develop to old age, including

- Changes in babies and children
- Changes in puberty
- Changes that occur in adults

Understand the changes that occur during puberty.

Compare changes in growth and development between humans and other animals.





Research the gestation periods of other animals and comparing them with humans

Orton Wistow Primary School – Curriculum Plan

Subject : Science – Properties and changes of materials

Year : 5

Term : Autumn

																					
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<p>Solution - a liquid mixture in which the minor component (the solute) evenly spread within the major component (the solvent).</p> <p>Solid - A solid can hold its shape (for example, water in solid form is ice)</p> <p>Liquid - A liquid like water forms a pool: it flows or runs but it can't be stretched or squeezed.</p> <p>Gas - A gas can flow, expand and be squeezed; if it is in an unsealed container it escapes (water in gas form is steam).</p> <p>Reversible - a change that can be undone or reversed.</p> <p>Irreversible - a change that cannot be undone or reversed</p> <p>Evaporate – when a liquid is heated and changes to a gas.</p> <p>Melt – when a solid is heated and change into a liquid.</p> <p>Filter - Removing small particles of insoluble or undissolved material from a liquid, usually by using a barrier with very small holes such as filter paper</p> <p>Dissolve - When a substance dissolves, it might look like it has disappeared,</p>	<p>Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes</p>	<p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid</p>	<p>Compare & group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity, (electrical and thermal), and response to magnets.</p> <p>Working Scientifically</p> <p>Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p>																		







but in fact it has just mixed with the water to make a transparent liquid called a solution.

Orton Wistow Primary School – Curriculum Plan

Subject : Science – Forces

Year : 5

Term : Spring

																					
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<p>Friction - the resistance that one surface or object encounters when moving over another.</p> <p>Air resistance - Friction occurs when objects move through water or air. Air resistance is a type of friction between air and another material.</p> <p>Gravity - the force that attracts a body towards the centre of the earth, or towards any other physical body having mass.</p> <p>Levers - a rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other.</p> <p>Pulleys - a wheel with a grooved rim around which a cord passes, which</p>	<p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p>	<p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>	<p>Design and make a variety of parachutes and carry out fair tests to determine which designs are most effective.</p> <p>Design and make products that use levers, pulleys, gears and/or springs and explore their effects.</p> <p>Working Scientifically</p> <p>Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>Use test results to make predictions to set up further comparative and fair tests</p>																		







<p>acts to change the direction of a force applied to the cord and is used to raise heavy weights</p> <p>Gears - a toothed wheel that works with others to alter the relation between the speed of a driving mechanism (such as the engine of a vehicle) and the speed of the driven parts (the wheels)</p>			
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Orton Wistow Primary School – Curriculum Plan

Subject : Science – Space

Year : 5

Term : Summer

			
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<p>Planet - a celestial body moving in an elliptical orbit round a star. From the Greek 'asters planetai' which means wandering star.</p> <p>Moon - a celestial body that makes an orbit around a planet</p> <p>Star - an astronomical object consisting of a luminous spheroid of plasma held together by its own gravity.</p>	<p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>Know that the sun is a star at the centre of our solar system and that it has 8 planets; Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. (Pluto was reclassified as a dwarf planet in 2006.)</p>	<p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p> <p>Understand how the geocentric model of the solar system gave way to the heliocentric model by considering the work of scientists such as Ptolemy, Alhazen and Copernicus.</p>	<p>Compare the time of day at different places on earth using internet links and direct communication.</p> <p>Construct simple shadow clocks and sundials.</p> <p>Working Scientifically</p> <p>Report and present findings from enquiries, including conclusions, causal relationships and explanations</p>



<p>Solar System - the collection of eight planets and their moons in orbit round the sun, together with smaller bodies in the form of asteroids, meteoroids, and comets.</p> <p>Orbit the curved path of a celestial object or spacecraft round a star, planet, or moon, especially a periodic elliptical revolution.</p>	<p>Know that a moon is a celestial body that orbits a planet (Earth has 1 moon; Jupiter has 4 large moons and numerous smaller ones.)</p> <p>Describe the movement of the Moon relative to the Earth</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies</p>		<p>of and degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>Identify scientific evidence that has been used to support or refute ideas or arguments.</p>
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