

Year 5 Progression in Science

Biology			Chemistry	Physics	
Animals including humans	Living things and their habitats	Plants	Materials	Forces	How the world works
<p>Humans: how we change as we age</p> <ul style="list-style-type: none"> I know the changes as humans develop to old age 	<p>Life cycles and reproduction</p> <ul style="list-style-type: none"> I know the differences in the life cycles of a mammal, an amphibian, an insect and a bird I know the life process of reproduction in some plants and animals 		<p>Properties and changes of materials</p> <ul style="list-style-type: none"> I know how to compare and group together everyday materials on the basis of their properties and the particular uses of everyday materials I know that some materials will dissolve in liquid to form a solution, how to recover a substance from a solution, and how to decide how mixtures might be separated, including through filtering, sieving and evaporating I know that some changes are reversible and some changes result in the formation of new materials which is not usually reversible 	<p>Forces</p> <ul style="list-style-type: none"> I know that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object I know that air resistance, water resistance and friction act between moving surfaces I know that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect <ul style="list-style-type: none"> 	<p>Earth and Space</p> <ul style="list-style-type: none"> I know the movement of the Earth, and other planets, relative to the Sun in the solar system I know the movement of the Moon relative to the Earth I know that the Sun, Earth and Moon are approximately spherical bodies I know that the Earth's rotation causes day and night and can explain the apparent movement of the sun across the sky

Humans: how we change as we age

- I will know that different mammals have different gestation periods
- I will know how a human foetus develops
- I will know how children develop
- I will know that bodies change with puberty
- I will know that there can be some difficulties associated with old age

Life cycles and reproduction

- I will know how to compare the life cycles of amphibians
- I will know how to compare the life cycles of mammals
- I will know how to compare the life cycles of insects
- I will know how to compare the life cycles of birds
- I will know how to classify animals according to their life cycles
- I will know how to compare the life cycles of mammals, amphibians, insects and birds
- I will know how flowering plants reproduce
- I will know that vegetative reproduction is growing new plants from cuttings
- I will know about the work of naturalists and animal behaviourists



Properties and changes of materials

- I will know how to compare and group together everyday materials on the basis of their properties, *including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets*
- I will know why materials are used for different purposes *including metals, wood and plastic*
- I will know that some materials will dissolve in liquid to form a solution
- I will know how mixtures might be separated, including through filtering, sieving and evaporating
- I will know how to recover a substance from a solution
- I will know that dissolving, mixing and changes of state can be reversible changes and some changes

Forces

- I will know that objects fall to Earth because of the force of gravity
- I will know that air resistance is a force which acts between the air and moving surfaces
- I will know that water resistance is a force which acts between the water and moving surfaces
- I will know that friction is a force which acts between moving surfaces
- I will know that some mechanisms *(including levers, pulleys and gears)* allow a smaller force to have a greater effect

Earth and Space

- I will know the movement of the Earth, and other planets, relative to the Sun in the solar system
- I will know how the Moon moves relative to the Earth
- I will know how the Earth's rotation causes day and night

are irreversible and result in the formation of new materials

- I will know the advantages of new materials that have been created by scientists