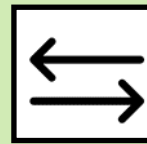


BIOLOGY:

- ANIMALS INCLUDING HUMANS



GROWTH & CHANGE

YEAR 5 SPRING TERM I

WHAT SHOULD I ALREADY KNOW?

Food chains are used to show how living things get their food.

Food chains are made up of producers and consumers.

Humans have incisor, canine, pre-molar and molar teeth and each type of teeth has a different job.

Animals have different make-ups of teeth depending on their food.

The digestive system has several functions, including ingestion, absorption and excretion.

WHAT WILL I LEARN?

I will be able to explain the growth and development of animals.

	Human	House Mice	African Elephant	Blue Whale
Gestation period	9 months	20 days	22 months	10-12 months
Sexual maturity	11-17 years	4-6 weeks	10-12 years	10 years
Life expectancy	80 years	1 year	60 years	90 years

- What is puberty?

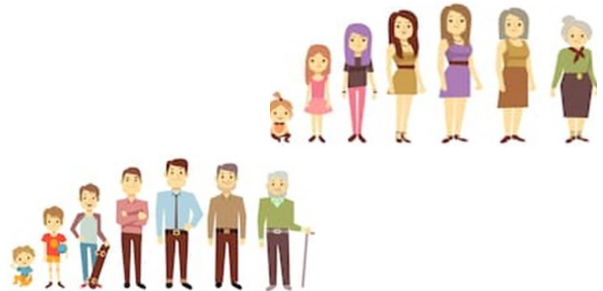
Puberty is when a child's body begins to grow, change and develop as they become an adult.

In humans puberty normally begins around age 11-12, however it can take place anytime from 8-14. Puberty happens when pituitary glands begin to release hormones.



VOCABULARY

PUBERTY	Puberty is the name for the time when your body changes as you move from childhood to adulthood.
GESTATION	Is the time between conception and birth when the embryo is developing in the uterus.
REPRODUCTION	Reproduction is the way different animals and plants make new plants
TEENAGER	The age between 13-19. It is a time where humans mature rapidly
TODDLER	Is the period that a young child starts to walk and become more independent.



WORKING SCIENTIFICALLY

1. Observing changes over time
2. Pattern Seeking
3. Identifying, Grouping & Classifying
4. Fair Testing
5. Research



CONNECTING CONCEPTS

PLAN ENQUIRY

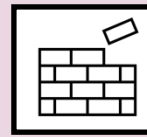


I will plan an enquiry to investigate if height is directly linked to age - are the oldest children in the class always the tallest? Are Y5s always taller than Y3s?

INTERPRET



I will research the gestation periods of other animals and compare them with humans considering if there is a relationship between mammals' size and gestation period.

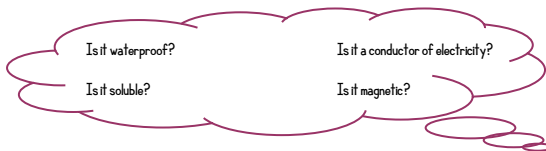


WHAT SHOULD I ALREADY KNOW?

- Materials are the substances that things are made from.
- The **properties of materials** make them useful for different purposes.
- Materials have more than one **property** and can be **natural** or **man-made**.
- Properties can include hardness, whether it conducts electricity, the shininess or whether it is magnetic.
- There are three main **states of matter** - solid, liquid and gases.

WHAT WILL I LEARN?

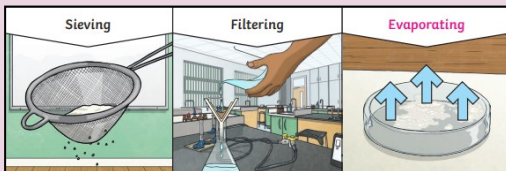
1) You will be able to group materials based on their properties.



2) You will be able to use a material's properties to separate them from a solution or mixture.

- A **solution** is a specific type of mixture where one substance is dissolved into another.
- A **solvent** is a substance that dissolves a solid, liquid or gaseous solute.
- A **solute** is the substance dissolved in the solvent.

→ Some mixtures and solutions can be separated, e.g. through processes such as **sieving**, **filtering** and **evaporating**.



3) You will be able to identify a reversible and irreversible change.

There are many ways to change a material's state of matter (heating, cooling and mixing).

- Some **can** be changed back to their original state (**reversible**).
- Some **cannot** be changed back to their original state. (**irreversible**).



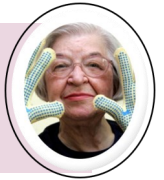
VOCABULARY

DISSOLVE	When something solid mixes with a liquid and becomes part of the liquid.
EVAPORATION	The process of turning from liquid to vapour.
GAS	An air-like substance which expands to fill any space.
LIQUID	A substance that flows freely but can be measured by volume.
IRREVERSIBLE	Cannot be reversed back to its original state of matter.
REVERSIBLE	Can be reversed back to its original state of matter.
SOLUBLE	Able to be dissolved, especially in water.
THERMAL	Relating to heat.
VARIABLE	Something that can change.

SIGNIFICANT SCIENTIST

Stephanie Kwolek

Chemist who invented Kevlar (a very strong material used for bullet proof vests and other protective equipment).



WORKING SCIENTIFICALLY

1. Observing changes over time
2. Pattern Seeking
3. Identifying, Grouping & Classifying
4. Fair Testing
5. Research



CONNECTING CONCEPTS

<p>PLAN ENQUIRY</p> <p>I will design a fair test focused on dissolving and consider the variables.</p>	<p>MEASURE</p> <p>I will read scales accurately when measuring materials (salt, sugar, chocolate etc).</p>	<p>REPORT</p> <p>I will analyse my findings and report how solutions and mixtures can be separated based upon their properties.</p>
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