Science Long Term Planning

'Achieve Excellence'

What does it mean to get better at Science at William Stockton?

At William Stockton children get better at Science as they travel through the curriculum; they build on their prior knowledge of scientific concepts, procedures and skills. They work scientifically and develop a knowledge of how scientists work with increasing expertise and complexity. They are able to build on their prior disciplinary knowledge to ask and answer questions; make predictions; make observations; use equipment and measurements; identify and classify; engage in practical enquiry; record and report findings; draw conclusions; and analyse data

Substantive Knowledge - I know that

Disciplinary Knowledge - I know how to…

Key Assessment End Points

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Working Scientifically **Make observations:** **Use their senses to explore the world around them** **Use Equipment and Measurements/Engage in Practical Enquiry:** **Begin to explore age appropriate tools and equipment eg binoculars, magnifying glasses, magnets, water tubs, bubbles etc**					

<table>
<tr><td></td><td colspan="5"><u>Engaging in Practical Enquiry (Investigating):</u>
Explore what bodies can do
Observe changes
Explore collections of materials with similar and/or different properties
Explore how things work
Explore and talk and about
different forces
Plant and care for seeds and plants.</td></tr>
<tr><td rowspan="2">Nursery</td><td>Living Things - My Body

Name body parts: arm, leg, nose, ear, eyes, head, wrist, ankle, elbow, shoulder, neck

Describe what our body parts can do.</td><td>Materials

Describe objects with similar/different properties: hard, cold, soft, by colour</td><td>Forces

Describe if you push something that it moves</td><td>Animals, Habitats and environment

Name some animals they are likely to see in their familiar world eg farm animals// mini beasts/ zoo animals</td><td>Plants/ Changes

Talk about the life cycle of a butterfly

Describe growth and decay eg plants, flowers, fruit & vegetables</td></tr>
<tr><td colspan="5">Seasonal Changes

It gets colder in the winter and warmer in the summer</td></tr>
<tr><td>Reception

End Points</td><td colspan="5">Working Scientifically
<u>Asking and Answering Questions:</u>
Ask simple questions about why different materials are used for different things.

<u>Make Observations:</u>
Use senses to explore the natural world around them.
Make observational drawings
Sort into groups using observational skills: sort images and objects into groups.

<u>Use Equipment and Measurements/Engage in Practical Enquiry</u>
Use age appropriate tools and equipment eg binoculars, magnifying glasses, magnets

<u>Identifying and classifying:</u>
Sort items into groups based on their properties.

<u>Record and Reporting Findings</u>
Use age appropriate scientific vocabulary</td></tr>
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<table>
<tr><td></td><td colspan="4">Use pictures to show their science learning.

<u>Drawing Conclusions</u>
Begin to explain why something has happened</td></tr>
<tr><td></td><td>Materials

Name some everyday materials eg wood, glass and plastic, water, milk,

Describes similarities and differences in relation to familiar objects and materials</td><td>Habitats and Environments

Describe some habitats that different animals like to live in Eg woodland, ocean, desert

Describe how to show care and concern for living things</td><td>Living Things

Name/ match adult/baby animals

Sort and classify animals into chosen criteria eg legs/ non legs, Farm animals/ zoo animals, nocturnal</td><td>Plants and changes

Explain plants are living

Name and describe some common plants they see in their familiar world - Daisy, Daffodil, Dandelion, Buttercup, blossom tree</td></tr>
<tr><td></td><td colspan="3">Seasonal Changes
Describe the effect of Autumn , Winter, Spring & Summer (season) on the natural world around them.</td></tr>
<tr><td>Year 1</td><td colspan="4"><u>Working Scientifically</u>
<u>Asking and Answering Question:</u>
Use everyday language/begin to use simple scientific words to ask or answer a scientific question.

<u>Making Predictions:</u>
Begin to say what might happen in an investigation.

<u>Making Observations:</u>
Observe objects, materials and living things and describe what they see and using their senses
Draw their observations

<u>Equipment and Measurements:</u>
Use simple, nonstandard equipment and measurements in a practical task.eg lego/hands/feet

<u>Identifying and Classifying:</u>
Sort and group objects, materials and living things, with help, according to simple observational features and based on their obvious properties

<u>Engaging in Practical Enquiry (Investigating):</u>
Follow instructions to complete a simple test individually or in a group.</td></tr>
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	Break apart items to investigate what can be found **Recording and Reporting Findings:** **Begin to record simple data.** **Talk about their findings and explain what they have found out.** Use a predefined table to record results Record results in a table using observational drawings/photographs **Drawing Conclusions:** **Explain, with help, what they think they have found out.**				
	Chemistry	**Biology**	**Biology**	**Biology**	**Scientist and Scientific investigation focus**
	Everyday Materials **Which material is best for an umbrella?** 	**Animals** **Can we tell what an animal eats by looking at its poo?** 	**Animals including humans** **Do the people with the biggest feet have the biggest hands?** 	**Plants** **What happens to a strawberry plant as it grows?** 	**David Attenborough and Working Scientific focus** (Review of years learning for consolidation through investigations) **Who is David Attenborough, and why is he important to science?** 
	Objects can be made of different materials, eg the school wall is made of brick. The	There are lots of different types of creatures in the world. Eg. fish, birds	**Humans have 5 senses; e.g. mouth to taste and ears to listen.** **Humans need a variety of food to help**	There are wild flowers growing on our school field. Daisies, buttercups,	**David Attenborough is a scientist.**

	school fence is made of metal. **Know the difference between solids and liquids** **Materials have different properties . eg.hard, shiny.**	Animals look different. eg. birds have wings, fish have scales **Animals eat different types of foods eg carnivores eat meat, Omnivore - eat meat and plants, Herbivore eat plants**	**them grow and stay healthy.**	dandelions, clover **Wild flowers grow naturally, they don't need to be planted.**	David Attenborough is interested in looking after our planet. David Attenborough makes programmes about our world. What is an endangered animal?  **Example investigation: what is the most common creature that visits our wildflower garden?**
	PHYSICS Seasonal Change				
	Name the four seasons. In Spring the trees have blossom. In Summer the trees have leaves. In Autumn the leaves fall off the trees. In Winter the trees have no leaves. **The days are shorter in winter and longer in summer.**				

Year 2	**Working Scientifically** **Asking and Answering Questions** Ask simple questions and know that they can be answered/investigated in different ways. **Use scientific language to ask simple questions and recognise they can be answered in simple ways.** Research secondary sources, such as books and video clips. **Making Predictions:** **Begin to make predictions about what might happen in an investigation linking to what they already know.** **Making Observations:** **Observe closely and describe changes over time using their senses** Begin to describe how things have changed over time. Record the results through annotated drawings or simple observation tables. **Make comparisons between different observations** **Equipment and Measurements:**- **Use simple equipment, such as hand lenses or egg timers to take measurements, make observations and carry out tests** Use a ruler and a sand timer to carry out simple tests Use a stop watch accurately **Identifying and Classifying** Group materials, living things and objects, noticing changes over time and beginning to see patterns **Sort into groups using observational skills, giving reasons why.** **Engaging in Practical Enquiry (Investigating):** **Perform simple tests (changing one variable and measuring its effect on another)** Begin to understand that to complete a fair test only one variable can change. **Recording and Reporting Findings:** **Recording and reporting findings - Gather data, record and talk about their findings, in a range of ways, using simple scientific vocabulary.** Gather data and record findings in a range of ways e.g. tally chart, Venn diagram, pictogram. Use predefined tables to record information **Drawing Conclusions:** Use simple scientific language to explain what they have found out **Talk about results using appropriate scientific vocabulary.** **Analysing Data:** **Identify simple patterns and/or relationships using simple comparative language**

	Chemistry	Biology	Biology	Biology	Scientist and Scientific investigation focus
	Uses of everyday materials **Which is the best material to mop up a spillage from water balloons/guns?** 	**Animals including Humans** **Do bananas make us run faster?** 	**Living things and their habitats** **What is the most suitable habitat for a woodlouse?** **What is the most suitable habitat for a frog?** 	**Plants** **Can plants grow without water, light or warmth?** 	**Rachel Carson and Working** **Scientific focus** **Why is it important to keep oceans clean?** **(Review of years learning for consolidation through investigations)** 
	Different materials are used for different objects depending on the purpose Materials are used for more than one thing.eg metal for coins, cans etc **Squashing, bending, twisting and stretching changes the shape of some materials** **Some materials are more absorbent than others.**	Name animal offspring kitten - cat; puppy - dog; duckling - duck; calf - cow; lamb - sheep. **Animals including humans need food, air and water to survive**. **It's important to wash my hands with soap and water and that I need to shower/bath regularly to keep clean.** **Fruits and vegetables are**	**Animals move in order to survive.** Exercise keeps animal's bodies in good condition and increases survival chances. All animals eventually die. Animals have young when they reach maturity. **Animals get their food from plants and other animals,** **A food chain explains what animals feed on.** Animals have different sources of food.	**Seeds and bulbs grow into mature plants.** Seeds need water to germinate. **Plants need water, light and warmth to grow.** **Plants are living because they breathe, move and grow.**	**Beaches are important habitats.** **Sea creatures and plants have adapted to live in a beach habitat** **Explore a beach habitat, observe animals, and collect data.** **Understand how litter affects beach habitats and living things** **Investigate how different materials react to sea water..**

	Recycling materials is important	**healthy foods** **Food that contains lots of sugar and fat are not so healthy**			
Year 3/4 Cycle 1	**Working Scientifically Year 3** **Asking and Answering Question:** **Use ideas from what they know and what they have observed to pose questions independently about the world around them.** Suggest ways to answer questions using scientific enquiries. **Making Predictions:** **Make predictions and begin to give reasons for their thoughts linking them to their previous knowledge.** **Making Observations:** **Make decisions about what to observe during an investigation so that they are answering an investigative question.** **Equipment and Measurements:** **Take accurate measurements using standard units (in cm, kg,ml,degrees) using digital thermometers, rulers, scales and measuring cylinders.** **Identifying and Classifying:** **Talk about criteria for grouping, sorting and categorising,** Begin to see patterns and relationships between how objects are grouped and sorted. Identify the criteria for grouping objects **Engaging in Practical Enquiry (Investigating):** **Identify variables that can be changed within an investigation** Discuss enquiry methods and describe a fair test means that only one variable will change. **Recording and Reporting Findings:** Record their findings using scientific language and present in note form, writing frames, diagrams, tables and charts - have support with the layout of these where necessary. Gather and record data, presenting in a variety of ways e.g. tables, bar charts, diagrams with increasing independence but support given with the layout **Gather and record data, presenting in a variety of ways e.g. tables, bar charts, diagrams.** **Drawing Conclusions:** **Draw, with support, a simple conclusion based on an enquiry observation explaining how what they have found out answers the enquiry question** **Analysing Results:** **Gather, record and use data in a variety of ways to answer a simple enquiry question**			

	Working Scientifically Year 4 **Asking and Answering Question:** Suggest relevant questions and know they can be answered in a variety of ways including investigations and using secondary sources such as ICT. **Ask relevant questions and begin to explain the best way to answer them using scientific enquiries and secondary sources.** **Making Predictions:** **Make predictions and give a reason using simple scientific vocabulary using what they have found out from previous tests.** **Making Observations:** **Make systematic and careful observations ensuring that they are recording the data appropriately.** Make observations at time intervals over a set time period Record observations clearly choosing the most appropriate method for doing so. **Equipment and Measurements:** **Take accurate measurements using standard units and a range of equipment , including thermometers and data loggers.** Measure accurately in a variety of measures including smaller increments eg cm/mm, kg/g. Read scales accurately **Identifying and Classifying:** **Identify similarities/differences/changes when talking about scientific processes.** Identify links across scientific processes Use and begin to create simple keys. **Engaging in Practical Enquiry (Investigating):** Make decisions about different enquiries, including recognising when a fair test is necessary **Identify variables that need to stay the same** **Identify variables that need to change.** Identify what needs to measured. **Recording and Reporting Findings:** **Choose appropriate ways to record and present information, findings and conclusions (eg.tables, graphs, annotated diagrams)** Understand when fair testing is necessary and the effect of fair testing on an investigation Suggest the most appropriate way to record and present data e.g. tables, bar charts, labelled diagrams. **Drawing Conclusions:** Use recorded data to make predictions, pose new questions and suggest improvements for further enquiries. **Talk about scientific processes when change occurs.** **Analysing Results:** **Use scientific evidence to support their findings.** Identify, with help, changes, patterns, similarities and differences in data to help form conclusions.

	Chemistry	Biology	Physics	Biology	Biology -	Scientist and Scientific investigation focus
	Rocks **Which soil is most permeable?** 	**Animals including Humans Y3** **Is shoe size proportional to height?** 	**Sound** **Which material is best to use for ear defenders?** 	**Living things and their habitats** **Does the amount of light affect woodlice movement?** 	**Plants** **Which conditions increase the rate of germination?** 	**Mary Anning and Working Scientific focus** (Review of years learning for consolidation through investigations) 
	Rocks can be classified in different ways. Such as: igneous, sedimentary and metamorphic. Concrete is a manmade rock. Soil is made from rocks and organic matter. Fossils can be found in sedimentary rocks. **Fossils are formed over thousands of years**	**Different animals are adapted to eat different foods** Humans get nutrition from the foods they eat. **Humans have a skeleton to protect organs and help them move.** Some animals have skeletons to support their bodies and protect their organs.	**Sound is produced when an object vibrates.** **Sound travels to our ears by vibrating the air.** **Sound travel can be blocked.** **Sound moves through all materials by making them vibrate.** A stronger vibration	**Living things can be divided into groups based upon their characteristics** **Changes to the environment can affect habitats in different ways.** Living things are affected by changes to the environment. **Different food chains occur in different habitats.**	**Plants are producers, they make their own food.** Their leaves absorb sunlight and carbon dioxide which makes their food. **Plants have roots, which provide support and draw water from the soil.** Water is transported through the plant.	**Mary Anning was a fossil collector.** She found fossils along the southern coast of Britain Her findings supported scientific thinking about prehistoric life and the history of the Earth. **Example**

	where organic matter is buried and crushed by sediment.	**Muscles are connected to bones and move them when they contract.**	gives a louder sound. Faster vibrations make a higher pitched sound.. Sounds get fainter as they get further away.	Human activity significantly affects the environment	**Insects can pollinate flowers to help them produce seeds**. **Seeds are dispersed in lots of ways.** They make new plants. **Seeds/bulbs require the right conditions to germinate and grow**.	**investigation: Do plants need soil to grow?** **Observe and classify different soil structures.** **Fossil hunt - trip**
Year 3/4 Cycle 2	**Chemistry**	**Biology**	**Physics**	**Physics**	**Physics**	**Scientist and Scientific investigation focus**
	States of Matter **What temperature do materials change state?** **Do all materials change state at the same temperature?** 	**Animals including Humans** **Y4** **How do different liquids affect the enamel of our teeth?** 	**Electricity** **Which materials make effective insulators?** **Do all materials conduct electricity?** 	**Light** **How does the distance between the shadow puppet and the screen affect the size of the shadow?** 	**Forces and magnets** **How do different surfaces change the distance an object travels?** 	**Cai Lun and Working Scientific focus** **(**Review of years learning for consolidation through investigations) 
	Materials can be divided into solids, liquids and gases. **Heating causes solids to melt into liquids and liquids evaporate into gases.**	**Animals have different teeth to help them eat.** **Different teeth do different jobs.** **Food is broken down by the teeth and then**	**A source of electricity (mains or battery) is needed for electrical devices to work.** A circuit needs cells and wires. It can also be made using bulbs,	There must be light for us to see. Without light it is dark. **We need light to see everything including reflective surfaces.** Transparent materials	**Forces are a push or a pull.** **The speed that objects move changes on different surfaces because of friction.**	**Cai Lun invented paper.** He used tree bark, bamboo fibres and water.

	Cooling causes gases to condense into liquids and liquids to freeze into solids. Measure and research the temperature in degrees Celsius (°C) at which materials change state. **Water evaporates and condenses as rain in the water cycle.**	**travels to the stomach and intestines where nutrients go into the blood.** The blood takes nutrients around the body. Nutrients produced by plants move to animals that eat them.	switches and buzzers. Electricity sources send electricity around a circuit. **A complete circuit is needed for electricity to flow.** **An insulator stops electricity travelling through it.** **A conductor encourages electricity to travel through it. Metal is a good conductor.**	let light travel through them and opaque materials do not let light through. **Opaque objects cause darker shadows.** Beams of light reflect off some materials. **Shiny materials reflect light rays better than non shiny materials**. The sun can damage your eyes and you can protect them.	**Magnets attract or repel each other.** Magnets have a north pole and a south pole. Magnet forces can attract from a distance. Magnets can attract through some materials. Some materials are not magnetic.	This discovery has led to a big change for the whole world. **Example investigation:** **Is there a pattern in how long it takes different sized ice lollies to melt?**
Year 5/6	**Working Scientifically (Y5)** **Asking and Answering Question:** **Raise different types of scientific questions ensuring that the question is something that can be tested.** Identify how the question is finding out the information that is needed **Making Predictions:** **Make predictions and give a reason using scientific vocabulary use prior learning and understanding to back up the prediction** Use findings to make new predictions for further comparative and fair tests. **Making Observations:** Plan and carry out comparative and fair tests, making systematic and careful observations. **Record and analyse the observations** Begin to identify any anomalies **Equipment and Measurements:** Take measurements using a range of scientific equipment including Newton Metres with increasing accuracy and precision. **Decide on what has to be measured and identify the best unit for measuring.** **Identifying and Classifying:** Use and develop keys to identify, classify and describe living things and materials. **Identify patterns in results** Begin to identify anomalies in results where results aren't following the expected pattern.					

	Engaging in Practical Enquiry (Investigating): **Plan a range of science enquiries, including comparative and fair tests.** Begin to plan independent investigations to answer an enquiry question **Identify and begin to control variables, giving reasons why some variables need to be controlled.** **Recording and Reporting Findings:** **Record data and results of increasing complexity using scientific diagrams, labels, classification keys, tables, bar and line graphs and models** Discuss the most appropriate way to record and present data, giving reasons why. **Drawing Conclusions:** **Clearly communicate and justify their conclusions on a hypothesis.** Begin to recognise how scientific ideas change over time. Make links between current learning and prior learning and use this to support them in writing a conclusion **Analysing Results:** **Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas.** Begin to identify where anomalies have occurred and talk about why these have occurred.
	Working Scientifically (Year 6) **Asking and Answering Question:** Pose/select the most appropriate line of enquiry to investigate scientific questions. **Identify how to create an investigation from developing an enquiry question and a hypothesis.** **Making Predictions:** Make predictions and give a reason using scientific vocabulary. **Base predictions on findings from previous investigations/knowledge.** Where appropriate, use mini-investigation to back up their prediction. **Making Observations:** **Make their own decisions about which observations to make.** Use test results and observations to make predictions or set up further comparative or fair tests. Record and analyse the observations **Identify any anomalies and explain why they have occurred.** **Equipment and Measurements:** **Decide on what to measure in an investigation to answer an enquiry question.** Choose the most appropriate equipment in order to take measurements, explaining how to use it accurately. Take accurate measurements eg Pulse. **Decide how long to take measurements for, checking results with additional readings.**

Identifying and Classifying:
Identify and explain patterns seen in data, in scientific processes and between investigations.

Engaging in Practical Enquiry (Investigating):
Select and plan the most suitable line of enquiry, explaining which variables need to be controlled and why, in a variety of comparative and fair tests.
Set up and plan independent investigations to test hypotheses and answering a clear enquiry question to answer
Identify the dependent and independent variables and how this can support with developing an investigation

Recording and Reporting Findings:
Choose the most effective approach to record and report results
Present the results in a clear organised way that explains the results of the investigations.
Use Mathematical knowledge to find the mean of a set of data

Drawing Conclusions:
Explain what the investigation has found out and explain the results linking the investigation with the theoretical knowledge of Science.
Use a range of secondary sources to support or refute ideas.
Identify validity of conclusion and required improvement to methodology.
Explain any anomalies and why these may have occurred.

Analysing Results:
Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion.

Chemistry	Biology	Physics	Biology	Physics	Scientist and Scientific investigation focus
Properties and changes to materials.  **Which type of sugar takes the longest to dissolve?**	**Animals including Humans**  **Is there a relationship between a mammal's size and its gestation period?**	**Light**  **Is there a pattern to how bright it is in school over the day? And, if there is a pattern, is it**	**All living things and their habitats**  **Which is the most common invertebrate on our school playing field?**	**Earth and Space**  **How does the length of daylight hours change in each season?**	 **Isaac Newton and Working Scientific focus** (Review of years learning for consolidation through

			the same in every classroom?			**investigations)**
	Properties of materials affect how they are used. **A mixture is combining two or more substances. These can be separated.** **A solution is made up of a liquid and a solid that has been dissolved.** If a solid can be recovered by filtering, it has not made a solution. **Some solids are soluble and some are insoluble** **A reversible change is something that can be reversed. An irreversible change can not be reversed.**	**The gestation period in different animals (including humans) is different.** A baby takes 40 weeks to develop in the womb. **The main changes that occur in the adult life cycle are: puberty, old age.** Puberty is the period when a child begins to change into an adult. As adults enter old age, their bodies and minds become more frail and they need to look after themselves more.	**Light travels in a straight line for us to see.** **All objects reflect light.** Mirrors can make light reflect at precise angles. **All objects block light to cast some sort of shadow** **Opaque objects that block more light make clearer defined shadows than translucent objects.** The human eye is made up of the cornea, iris, pupil, lens, retina and optic nerve.	**Asexual reproduction in a plant means it only needs one parent plant to make a new plant.** **Sexual reproduction in plants is through a process called pollination.** Pollination is pollen moving from a male plant to a female plant An amphibian is a vertebrate (an animal with a backbone). **Insects are one of the most common types of invertebrate.** **Mammals are animals such as dogs and humans that give birth to babies rather than laying eggs, and feed their young with milk.**	The Earth, Sun and Moon are spherical. **The Earth orbits the sun. It takes 365.25 Earth days to complete a full orbit.** There are 8 planets in our solar system: Mercury; Venus; Earth; Mars; Jupiter; Saturn; Uranus; Neptune. **The Earth takes 24 hours to rotate on its axis; this gives us day and night.** The moon orbits the Earth - it takes 28 days.	**Issac Newton discovered Gravity**. Issac also proved that light moves in a straight line. **Examples of investigations:** **Investigate how light moves using Isaac Newton's spectrum of colour theory using prisms and controlling the direction of the light.** **Compare Young's and Newton's theories of how light travels**
Year 5/6 Cycle 2	Physics	Biology	Physics	Biology	Physics	**Scientist and Scientific investigation focus**

	Forces	Animals, including humans	Electricity	Living Things and their habitats	Evolution and inheritance	Marie M. Daly and Working Scientific focus
	 **Do all objects fall through water in the same way?**	 **Which type of exercise has the greatest effect on our heart rate?**	 **Which type of fruit makes the best fruity battery?**	 **How would you make a classification key for vertebrates/invertebrates or microorganisms?**	 **Is there a pattern between the size and shape of a bird's beak and the food it will eat?**	(Review of years learning for consolidation through investigations)
	Objects fall towards the Earth because of the force of gravity. **An object always has two forces acting upon it.** **An object moves in a direction because one force is larger than the other.** **When the forces are equal, the object does not move** Air resistance is the friction between the air and another material. Water resistance is the friction between the water and another material. Changing the surface area of an object can affect the amount of air and water resistance.	**Our blood is made up of four parts:red blood cells; white blood cells; platelets; and plasma.** **The heart pumps blood around the body and delivers oxygen and nutrients to the cells and collects waste.** The heart pumps deoxygenated blood to the lungs to release carbon dioxide and collect oxygen. **Exercise increases the heart rate because the muscles need more oxygen** **Diet impacts our bodies.** **Alcohol and cigarettes impact negatively on the body.**	**Know the main symbols in a circuit diagram** **Voltage is a measure of how strong the current is in a circuit. It is what "pushes" the current through the circuit** . Connecting cells in a series increases the voltage. **The more volts, the brighter the bulb or the loudness of a buzzer.** Circuits that are broken do not work.	**Carl Linnaeus developed a classification system that showed how closely related organisms are to one another.** A dichotomous (dichotomous) key can classify organisms Arthropods have an exoskeleton Micro-organisms are bacteria, viruses and funghi.	**Living things can change over time to adapt to their environment** **Fossils provide information about where living things and when living things inhabited the Earth** Some organisms are embedded in sedimentary rock and have formed a fossil. Chales Darwin helped us to understand more about natural selection. Evidence has shown natural selection is how human evolution has occurred Offspring inherit traits from their parents. **Inherited traits are traits that are genetically passed**	Marie was the first African American in America to achieve a PhD in Chemistry. **Marie was one of the first who investigated the effect of smoking on the lungs** Her work led to an understanding of how diet can affect the circulatory system. **Example investigation: Is there a pattern between what we eat for breakfast and how fast we can run?**

					down from a parent. .	