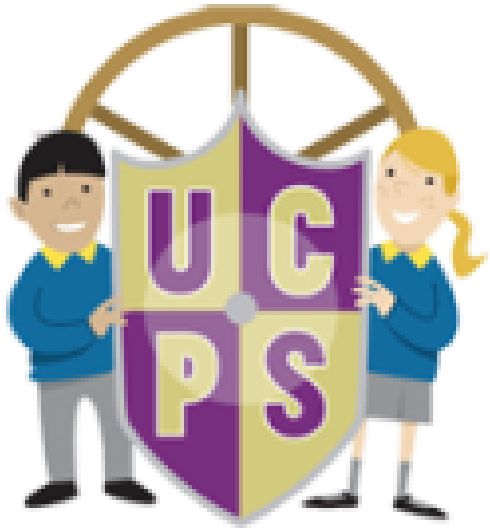


Science in Year 6

Working Scientifically

Year 5/6	Working Scientifically Skills

OBJECTIVES

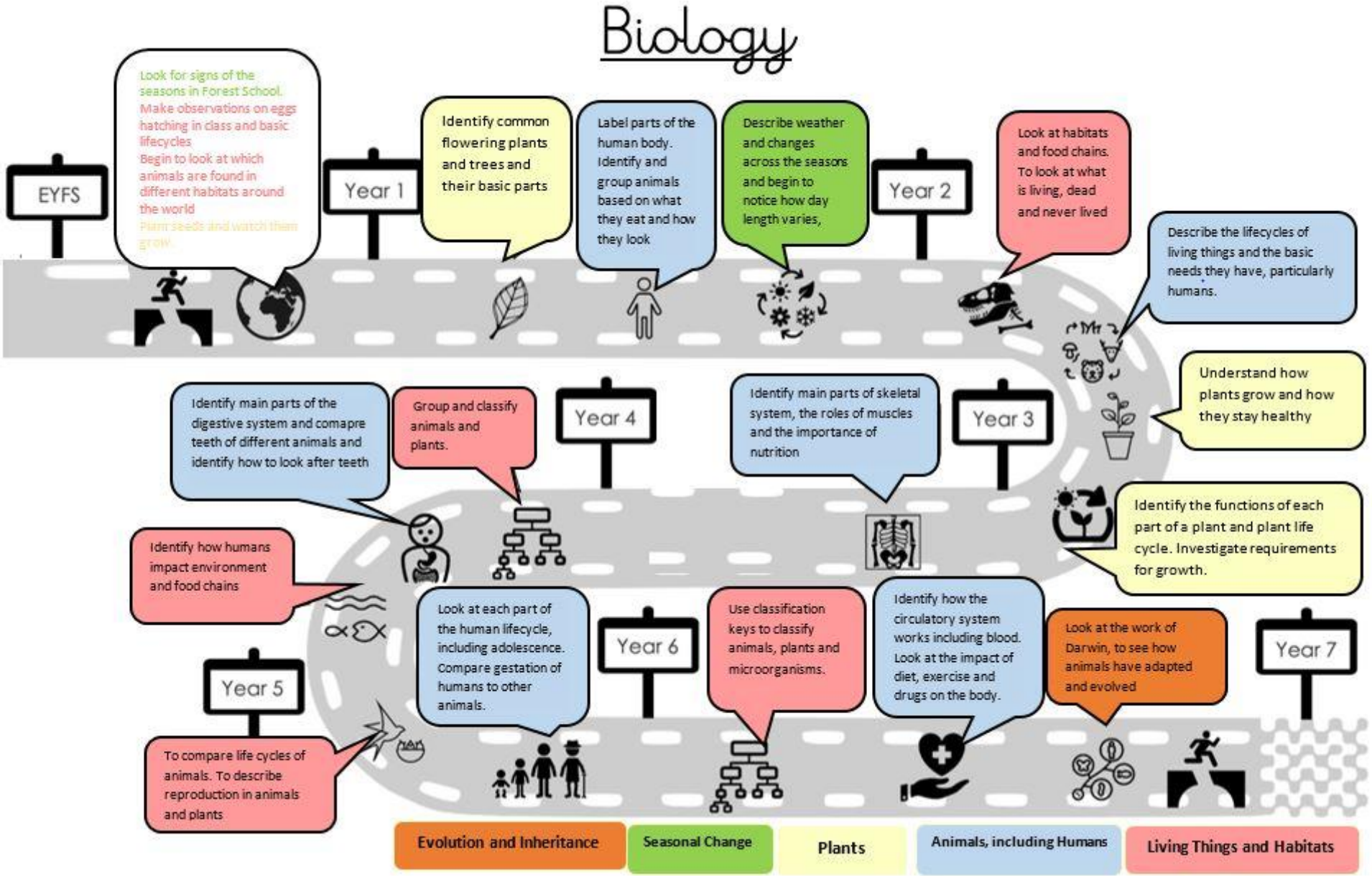
a) Use their science experiences to explore ideas and raise relevant questions
b) Select and plan the most appropriate type of scientific enquiry to use to answer scientific questions and explain why.
c) Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why
d) Makes reasoned predictions using evidence to support their ideas and making links to other scientific knowledge.
e) Use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment
f) Recognise which secondary sources will be most useful to research and use information from relevant different sources to begin to plan an investigation.
g) Make their own decisions about what observations to make, what variables are needed and what measurements to use and how long to make them for.
h) Choose the most appropriate equipment to make measurements with increasing accuracy and precision, taking repeat measurements where appropriate.
i) Decide appropriate way to record complex data and results (scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs)
j) Draw conclusions from their work and link their conclusions to scientific knowledge and vocabulary
k) Look for different causal relationships in their data and identify evidence that refutes or supports their ideas
l) Uses graphs to answer scientific questions.
m) Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas,
n) To use oral, ICT and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of degree of trust in results
o) Use their results to make further predictions and identify when further enquires, observations, comparative and fair tests might be needed
p) Independently discusses the success of their working methods and suggests ways of improving their work and say why they think this.
q) To discuss how scientists, have breakthroughs and how they have developed scientific ideas over time. Identify scientific evidence that has been used to support or refute ideas over time.

VOCABULARY

Controlled/independent/dependent variable
Time graph
scatter graphs
line graphs
support/not support
independent decisions
scientific equipment
systematic precision/accuracy
complex data
report
reliability
justify
link ideas and knowledge
fact opinion causal relationships labelled scientific diagrams quantitative measurements
reliability/reliable repeat
scientific breakthroughs
causal relationships
degree of trust
refutes
pie charts
quantitative data
Qualitative data

Child friendly version to be put in the back of children's books/floor book	

Biology


EYFS
Look for signs of the seasons in Forest School.
Make observations on eggs hatching in class and basic lifecycles
Begin to look at which animals are found in different habitats around the world
Plant seeds and watch them grow.
Year 1
Identify common flowering plants and trees and their basic parts
Label parts of the human body. Identify and group animals based on what they eat and how they look
Year 2
Describe weather and changes across the seasons and begin to notice how day length varies,
Look at habitats and food chains. To look at what is living, dead and never lived
Year 3
Describe the lifecycles of living things and the basic needs they have, particularly humans.
Understand how plants grow and how they stay healthy
Identify the functions of each part of a plant and plant life cycle. Investigate requirements for growth.
Year 4
Identify main parts of the digestive system and comapre teeth of different animals and identify how to look after teeth
Group and classify animals and plants.
Identify main parts of skeletal system, the roles of muscles and the importance of nutrition
Year 5
Identify how humans impact environment and food chains
To compare life cycles of animals. To describe reproduction in animals and plants
Year 6
Look at each part of the human lifecycle, including adolescence. Compare gestation of humans to other animals.
Use classification keys to classify animals, plants and microorganisms.
Identify how the circulatory system works including blood. Look at the impact of diet, exercise and drugs on the body.
Year 7
Look at the work of Darwin, to see how animals have adapted and evolved
Evolution and Inheritance
Seasonal Change
Plants
Animals, including Humans
Living Things and Habitats

<table>
<tr><td>Year 6</td><td colspan="3">Area of NC: Living Things and Habitats - Classification (Biology)</td></tr>
<tr><td>Learning Objectives
(in suggested order of teaching sequence)</td><td colspan="3"><u>Prior Learning relevant to this topic:</u> In Y4, children have learnt to group plants and animals in a variety of ways as well as explore and use classification keys to name a variety of living things in the local and wider environment.. In Y5 children have looked at the lifecycles of mammals, amphibians, insects and birds and how they differ as well as looking at reproduction in plants and animals.

• Sort animals (vertebrates and invertebrates) into groups based on their characteristics
• Use classification systems and keys to identify animals
• Justify my reasons for classifying animals based on specific characteristics
• Explain the significance of Carl Linnaeus
• Sort plants into groups based on their characteristics, identifying similarities and differences
• Use classification systems and keys to identify plants
• Identify and classify microorganisms

<u>Pupils do not need to be taught the following content, which they will learn in later year groups:</u> In KS3 children will learn the differences between species</td></tr>
<tr><td>Working Scientifically Objectives that link to this topic:</td><td colspan="3">• Use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment
• Recognise which secondary sources will be most useful to research and use information from relevant different sources to begin to plan an investigation.
• Draw conclusions from their work and link their conclusions to scientific knowledge and vocabulary
• Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas,
• To use oral, ICT and written forms such as displays and other presentations to report conclusions
• To discuss how scientists have breakthroughs and how they have developed scientific ideas over time. Identify scientific evidence that has been used to support or refute ideas over time.
Others could be relevant dependant on which practical enquiries you choose to plan</td></tr>
<tr><td rowspan="2">Learning Objective</td><td colspan="3">Objective Broken Down into Differentiation</td></tr>
<tr><td>Below</td><td>Expected</td><td>Above</td></tr>
<tr><td>Sort animals (vertebrates and invertebrates) into groups based on their characteristics</td><td>Can give examples of animals in the five vertebrate groups and some of the invertebrate groups</td><td>Can give the key characteristics of the five vertebrate groups and some invertebrate groups</td><td>Can compare the characteristics of animals in different groups</td></tr>
<tr><td>Use classification systems and keys to identify animals</td><td>Can use classification materials to identify common animals</td><td>Can use classification materials to identify unknown animals</td><td>Can create classification keys for animals</td></tr>
</table>

Justify my reasons for classifying animals based on specific characteristics	With support, pupil can give some characteristics that explain why an animal belongs to a particular group	Can give a number of characteristics that explain why an animal belongs to a particular group	Pupil can explain why some animals are harder to classify as they have characteristics of multiple groups eg penguin, platypus etc.
Explain the significance of Carl Linnaeus	Pupil understand that taxonomists help us to identify all living things	Pupil can describe the work of scientists in creating a binomial classification systems e.g. Carl Linnaeus	Pupil can describe and name the 7 levels of taxonomic rank used to identify all living things e.g. using a pneumonic to help
Sort plants into groups based on their characteristics, identifying similarities and differences	Pupil understands that there are flowering and non-flowering plants and give examples.	Pupil understands that there are 4 main groups of plants: mosses ferns, conifers and flowering plants. Pupil can identify similarities and differences between the four main plant groups.	Pupil can justice why plants are placed in the four groups accurately referring to their characteristics.
Use classification systems and keys to identify plants **Forest school**	Can use classification materials to identify plants in the local environment	Can use classification materials to identify unknown plants	Can create classification keys for plants
Identify and classify microorganisms	Pupil understands that microbes can be harmful or helpful	Pupil understands there are more than one type of micro-organism e.g. fungi; bacteria; virus; and name examples Pupil can describe how some micro-organisms are helpful and others harmful, naming examples of both.	Pupil has an understanding of micro-organisms can cause harm but can also create medicines, with examples of scientific discoveries

Scientific Enquiry/Activity Ideas:

Ensure experiments/enquires are significantly different to Year 4

Pattern Seeking	**Observations Over Time**	**Identifying, classifying and grouping**	**Practical Tests**	**Research**
• Which is the most common invertebrate on our school playing field?	• What happens to a piece of bread if you leave it on the windowsill for two weeks?	• https://www.linnean.org/learning/competitions/special-species - Create your own species and enter the Linnean competition • Classify- use classification charts for leaves, plants, birds etc ***See the book 'A Creative Approach to Teaching Science' pg 56*** • Can use classify vertebrates and invertebrates? • Classify animals based on if they are fish, bird, amphibian, reptile or mammal. • Which animals seem like they could belong to more than one group? • How would you make a classification key for vertebrates/invertebrates or microorganisms? • Here are a list on animals at Edinburgh Zoo – how would you group the animals ?	• What is the most effective way to remove germs from hands? • Can you make medicines? http://www.ciec.org.uk/resources/medicines-from-microbes.html • How does the temperature affect how much gas is produced by yeast? https://sciencebob.com/blow-up-a-balloon-with-yeast/	• How did Carl Linneaus' ideas help us to group plants? • What do different types of microorganisms do? Are they always harmful? • How have our ideas about disease and medicine changed over time • Research about microorganisms that cause the common cold and other diseases that children are aware • What ideas did Edward Jenner have about small pox and how did he test them? • Why do we need to classify living things? • Can you give common plants latin names like the 1700's, whats the problem with this? Can you give

				new creatures a binomial name? Which was easier? ***See the book 'A Creative Approach to Teaching Science - pg 57 and 58.***

Non statutory NC ideas

- Pupils might find out about the significance of the work of scientists such as Carl Linnaeus, a pioneer of classification.
- Pupils might work scientifically by: using classification systems and keys to identify some animals and plants in the immediate environment. They could research unfamiliar animals and plants from a broad range of other habitats and decide where they belong in the classification system.

Scientists to Consider

Carl Linneus, Alexander Fleming, Edward Jenner. Louis Pasteur

Bright Ideas Time Suggestions	Vocabulary to be Taught	Possible Trips/Experiences	Possible Cross-Curricular Links	Potential Books to use
• Odd one out – plastic bottle, fruit salad, pig and flowers (recap of living, non-living, have never lived) • Odd one out – Moss, fern, acorn, flower • Is a tree a plant? • PMI – What if there were no plants in the world? • What if no-one cleaned their home? • Odd one out – virus, bacteria, funghi, yeast https://explorify.wellcome.ac.uk/en/activities/odd-one-out/small-but-powerful • Can microorganisms be good for you? • Why could the platypus be a bird? • Picture of two leaves can you identify the similarities and differences. • PMI: What if we lived in a world with no insects?	insects, spiders, snails, worms, Arthropods - arachnid, mollusc, insect, crustacean , flowering and non-flowering, Organisms, Classification, Characteristics , plants, Classify, compare, bacteria, microorganism, Linnaean, Funghi, yeast, virus, ; phylum; class; order; family; genus; species;	• Rainton Meadows Nature Reserve - https://durhamwt.com/education/ • Washington Wildfowl and Wetlands Trust - https://www.wwt.org.uk/learn/learn-at-washington/learning-sessions/details/how-do-animals-live-in-a-pond/2/ - classification, food webs, and adaptation. • Life Centre - https://education.life.org.uk/workshop/evolution-on-clippy-island • Life Centre - https://education.life.org.uk/workshop/habitats • Blue Reef Aquarium - Which Family? Animal Classification and Identification - https://www.bluereefaquarium.co.uk/tynemouth/education-and-group-visits/school-trip/	**English:** • Write a report about Carl Linnaeus. • Create a plant/animal fact file. **Maths:** • Present classification information in Venn diagrams, Carroll diagrams and keys. **ICT/iPads:** • Padlet can be used to generate the questions the children want to investigate in each topic. • Kahoot can be used as an assessment tool in lessons or at the end of each unit. • Yakkit kids/green screen as Carl Linnaeus • Explain everything on why they have classified that way and why- upload to seesaw	• Beetle Boy: The Beetle Collector's Handbook (Beetle Boy) - *To be able to sort an (vertebrates and invertebrates) into groups their characteristics* • Animal! By DK Smithsonian *To be able to sort animals (vertebrates and invertebrates) into groups based on th characteristics* • Trees, Leaves, Flowers and Seeds: A Visual Encyclopedia of the Plant Kingdom by DK Smithsonian - *To be able to sort plants into groups based on their characteristics , identifying similarities and differences* • Botanicum- *To be able to sort plants into groups based on their characteristics , identifying similarities and differences* • The Variety of Life - *To be able t animals (vertebrates and invertebrates) in based on their characteristics* • Inside Your Insides: A Guide to the Microbes That Call You Home- *To be able to identify and classify microorganisms* • The good germ hotel by Kim Sung-hwa and Kwon Sun-jin – *To be able to identify and classify microorganisms* • The bacteria book by DK – Steve Mould - *To be able to identify and classify microorganisms*

Year 6	Area of NC: Animals, including Humans – Circulatory System and Health (Biology)		
Learning Objectives *(in suggested order of teaching sequence)*	***Prior Learning relevant to this topic:*** **In Y2 children learnt the importance of hygiene, eating the correct amounts and exercise for humans. In Y3 children learnt more about the nutrition in food and why balanced diets are important. In Y3 children learnt about skeletal system. In Y4, children have learnt about the digestive system.** • Name and identify the main internal organs and their functions • Identify the main parts of the circulatory system and how it works • Identify the main components of human blood and their functions • Describe the ways in which nutrients and water are transported within animals, including humans • Recognise the impact of diet and exercise on the way our bodies function • Recognise the impact of drugs on the way our bodies function ***Pupils do not need to be taught the following content, which they will learn in later year groups:*** **In KS3 children will learn about some more complex consequences of a poor diet like deficiencies and starvation. They will look more into the impact of substance misuse and recreational drugs. They will also look further into the mechanisms of breathing in humans and the impact of exercise, asthma and smoking on the human gas exchange**		
Working Scientifically Objectives that link to this topic:	**Due to practical exercise enquiry that can be conducted, along with research etc almost all working scientifically objectives can be met in this unit of work.**		
Learning Objective	**Objective Broken Down into Differentiation**		
	Below	***Expected***	***Above***
Name and identify the main internal organs and their functions **(Skeletal system is recap of Y3)**	Pupils with support can name the main internal organs and explain why the skeletal system is important	Pupils can independently name the main parts of the skeletal system and internal organs, explaining we need the skeleton for protection and movement. Pupils can research the functions of the internal organs.	Pupils can begin to explain what may happen if one of the organs was not working correctly,
Identify the main parts of the circulatory system and how it works	Pupil can identify and name the main parts of the circulatory system Pupil can explain how blood circulates around the body.	Pupil can name the main parts of the human circulatory system and describe the function of each part (heart, lungs, blood vessels) Can use role play model to explain the main parts of the circulatory system and their role.	Can independently explain how the circulatory system works using scientific vocabulary accurately. Pupil has opportunity to compare and contrast the circulatory systems of a range of animals compared to man Can compare skeleton, digestive and circulatory system
Identify the main components of human	Pupil can identify the different components that make up blood	Pupil can identify each component of human blood and explain what their function is.	Pupils can explain how the capillaries work and why they are so important.

blood and their functions			
Describe the ways in which nutrients and water are transported within animals, including humans	Pupil can state how the digestive system breaks down nutrients from what we eat. Pupil recognises that blood carries oxygen and carbon dioxide around the body.	Pupil can state how the digestive system also breaks down the nutrients in the stomach, small intestine and large intestine to be transported around the body. Pupil can explain the composition and function of blood within the body, including how it carries gases, nutrients and water.	Pupil can independently explain, using scientific vocabulary, how the digestive system and circulatory system (blood) transport water and nutrients around the human body and why this is so important.
Recognise the impact of diet and exercise on the way our bodies function	Pupil can name a range of healthy and unhealthy foods giving some reasons for their choice. Pupil can explain why it is important to exercise and eat healthily.	Pupil understands that the human body needs energy to function properly and this comes from our food and this should be from a balanced diet Pupil can explain the impact on the heart and circulatory system of exercise and nutrition	Pupil can suggest specific activities to keep the heart and circulatory system healthy. Pupil can describe what happens to the body if we have too little/too much food to meet its needs.
Recognise the impact of drugs on the way our bodies function	Pupil can name some of the dangers to the body of taking drugs and medicines inappropriately, including smoking and alcohol.	Pupil can identify a range of helpful (medicines) and harmful drugs and explain their effect on the body including the addictive nature of many drugs including smoking and alcohol.	Pupil can identify how some drugs, alcohol and smoking effect certain organs in the human body and how ideas about this have changed over time.

Scientific Enquiry/Activity Ideas:

Pattern Seeking	**Observations Over Time**	**Identifying, classifying and grouping**	**Practical Tests**	**Research**
• How are breathing rate and pulse rate linked? • Which type/s of exercise are best for a healthy heart?Do a range of aerobic and anaerobic exercises and measure heart rate. • Compare the heart rate of a younger child with that of an older one before, during and after an activity - is there a difference? Why? • similarities between the frog and the human organs • Keep a healthy me diary and compare results - ***See the book 'A Creative Approach to Teaching Science')*** • Is there a pattern between the pulse rate of boys and girls?	• How does my heart rate change over the day?	• Which organs of the body make up the circulation system, and where are they found? Can you do a role-play of the circulatory system in action? • What is our blood made up from? Can you make a model? • Using labels on common drinks, children to identify the amount of sugar in each. To make it more visual, it is good to get the children to weigh out the amount of sugar in each drink. Children then need to classify the drinks as "healthy" or "unhealthy". • How does the heart work? Can you make a model? (Pg 37 ***See the book 'A Creative Approach to Teaching Science')*** • *Can you design a healthy snack to sell at break times?* • How might the circulatory system of an elephant, a hummingbird, or a polar bear differ? • How much exercise do I do in a week?	• How does exercise affect my body? https://www.bbc.com/teach/terrific-scientific/KS2/zmtxy9q • Which type of exercise has the greatest effect on our heart rate? Measure pulse at resting rate - opportunity to use digital equipment. Children to participate in 60 seconds of different exercises, returning to resting rate between each one. Measure pulse immediately after exercise, and record the value. Compare results to determine the impact of the exercise • Do I change when the clocks change? https://www.bbc.com/teach/terrific-scientific/KS2/zv3hgwx • Have we got healthy lungs? Lung capacity test. Fill up a large bottle of water marking every 250ml on the bottle as you fill. Place a tube inside the large bottle and turn it upside down inside a plastic container also filled with water. Ask a child to blow into the tube. Their breath will force water out of the bottle. Using the marks made on the bottle at the	• Choose an organ. Research the function with books, interviews, internet, age appropriate text and present in a way that they choose • How does blood flow? • Could we survive on just chocolate? • How have our ideas about disease and medicine changed over time?

		• Create a warning video identifying the dangers of smoking, alcohol and drugs. • What are the dangers to the organs of smoking, drinking and taking drugs? Organs write to agony aunt asking what their human can do to protect them.	beginning, you can calculate how much water they have displaced and therefore their lung capacity. • Does exercising regularly affect lung capacity?' First record data to find those in the class who exercise regularly. https://www.bbc.com/teach/class-clips-video/respiration/z7t8qp3 • What is the impact of smoking? Make a model - pg 41 ***See the book 'A Creative Approach to Teaching Science'*** • How does the length of time we exercise for affect our heart rate?	

Non statutory NC ideas

• Pupils might work scientifically by: exploring the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.

Scientists to Consider

Leonardo Da Vinci- anatomy, William Harvey , Sir Richard Doll- Linking Smoking and Health Problems

Bright Ideas Time Suggestions	Vocabulary to be Taught	Possible Trips/Experiences	Possible Cross-Curricular Links	Potential Books to use
• Odd one out – intestines, heart, lungs • Odd one out – stomach, lungs, liver • Can we live without capillaries? • PMI – What would a world without exercise be like? • Odd one out – cheese, salmon, nuts, lettuce • Similarities and differences - coffee, inhaler calpol, tea, ibuprofen • Odd one out - Differences in circulatory systems - https://explorify.wellcome.ac.uk/en/activities/odd-one-out/get-your-blood-pumping • PMI - What if our heart was an external organ? • Are veins and arteries really blue and red? • What would happen if all our blood was replaced with water? •	Oxygenated, Deoxygenated, Valve, Exercise, Respiration Circulatory system, heart, lungs, blood vessels, blood, artery, vein, capillary, digestive, skeletal, muscular, transport, , nutrients, water, oxygen, alcohol, drugs, tobacco, smoking, internal organs, diet, exercise, double circulation, pumps, carbon dioxide, substances, misuse, blood cells; red cells; white cells; plasma; platelets; haemoglobin;	• Greenshift Education - http://greenshifteducation.co.uk/workshops/ • Hands on Science - https://www.hands-on-science.co.uk/workshop/healthy-hearts-primary-science-workshop/ - Healthy Hearts • Life Centre - https://education.life.org.uk/workshop/keeping-healthy-uks2 - Keeping Healthy Workshop • Washington Academy Trips - Could do more in-depth investigations • Life Centre - With practical experiment - https://education.life.org.uk/workshop/circulation-and-movement-ks2 • A life - Drug, Alcohol and Exercise Workshops - http://www.a-life.co.uk/our-workshops/alcohol-and-drugs-awareness/ • Safety Works - Alcohol and Drug Misuse Workshops - http://www.safetyworks.org.uk/lear	**English:** • Write up of investigations. • Create a leaflet for how to keep the body healthy. Creative writing as organs to agony aunt. • Circulatory system information text. **Maths:** • Line graphs used to record data from pulse rate investigation. • Focus on measuring and timing pulse rate accurately. **ICT/iPads:** • Visual Anatomy 3D – see inside body • HP Reveal – create their own 4D image. Create a video in iMovie about the heart etc, link with a picture drawn themselves • Green Screen using different organs of the body - children explaining over the top. • Curiscope virtual T-shirt app to see inside the human body for circulatory system • Apple Retail Store Field Trip/ Go Noodle • Medical Pioneers – using Yakit Kids interview • Padlet can be used to generate the questions the children want to investigate in each topic. • Kahoot can be used as an assessment tool in lessons or at the end of each unit. • Google Expeditions – the heart and human anatomy circulatory system	• Are You What You Eat? By DK - *To be able to recognise the impact of diet and exercise on the way our bodies function* • Professor Astro Cat's Human Body Odyssey: - *To be able to name and identify the main internal organs and their functions and other objectives too* • Illumanatomy by Ms. Kate Davies & Carnovsky - *To be able to name and identify the main internal organs and their functions and to be able to identify the main parts of the circulatory system and how they work*

		ning-at-safetyworks/drugs-and-alcohol-misuse/ • Possible heart dissections		

Year 6	Area of NC: Evolution and Inheritance (Biology)		
Learning Objectives *(in suggested order of teaching sequence)*	***Prior Learning relevant to this topic:*** **In Y2 children learnt that living things live in habitats that suit them and their basic need. In Y3 children have learnt how fossils are formed and understand that things that used to be alive are trapped within them. In Y4 children have learnt that habitats can change and human impact can make some habitats dangerous to living things.** • Explain what fossils tell us about living things from the past • Explore and explain inheritance and variation from parent to offspring. • Identify how animals and plants are adapted to suit their environment • Research the impact of Charles Darwin ***Pupils do not need to be taught the following content, which they will learn in later year groups:*** **In KS3 children will learn about DNA and learn more complex information about variation which can cause some organisms to be able to compete more successfully or less successfully either driving natural selection or lead to extinction.**		
Working Scientifically Objectives that link to this topic:	• Use their science experiences to explore ideas and raise relevant questions • Makes reasoned predictions using evidence to support their ideas and making links to other scientific knowledge. • Use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment • Recognise which secondary sources will be most useful to research and use information from relevant different sources to begin to plan an investigation. • Draw conclusions from their work and link their conclusions to scientific knowledge and vocabulary • Look for different causal relationships in their data and identify evidence that refutes or supports their ideas • Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas, • To use oral, ICT and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of degree of trust in results • To discuss how scientists have breakthroughs and how they have developed scientific ideas over time. Identify scientific evidence that has been used to support or refute ideas over time. ***Others could be relevant dependant on which practical enquiries you choose to plan***		
Learning Objective	**Objective Broken Down into Differentiation**		
	Below	***Expected***	***Above***

Explain what fossils tell us about living things from the past	Can explain that fossils show us something that once was alive and therefore can tell us about the past With support pupils can define the term evolution	Can explain the process of evolution being that living things have changed over time. Can examine fossil evidence/record and explain how it provides information about living things that inhabited the earth millions of years ago. Can examine fossil evidence/record and explain how a living thing has evolved over time	Can give some limitations of fossil evidence Pupil can describe key stages in the Earth's history and offer suggestions as to why different creatures/plants lived then compared to now.
Explore and explain inheritance and variation from parent to offspring.	Pupil can explain that parents give some characteristics to their offspring. Pupil understands that sometimes offspring are not like their parents	Pupil understands that human offspring inherit characteristics from each parent but will not be identical to their parents, although they will have some features in common. Pupil can identify inherited features and those that are learned/environmental. Pupil can use the word variation accurately.	Pupil can explain that some organisms reproduce asexually and the offspring will be almost identical to the parent which is different to human offspring. Pupil may show some awareness of selective breeding creating purposeful variation
Identify how animals and plants are adapted to suit their environment	Can give examples of how plants and animals are suited to an environment. Pupil can explain that some living things are able to survive better than others in different environments, begin to give reasons why.	Can identify characteristics that will make a plant or animal suited or not suited to a particular habitat and understands that adaptation can lead to evolution – through something called natural selection/survival of the fittest Pupil can analyse the advantages and disadvantages of specific adaptations Can give examples of how an animal or plant has evolved and adapted over time e.g. penguin, peppered moth.	Pupil can explain adaptations needed to suit an environment and then explain the impact on the creature or plant if they did not have those characteristics. Pupils can give scientific reasons for adaptations based on what they know about living things and use accurate scientific vocabulary.
Research the impact of Charles Darwin	Pupil with support, can explain the work of Charles Darwin	Pupils can explain the work of Charles Darwin and the impact and contribution he made.	Can demonstrate understanding of how ideas about evolution developed over time and that Darwin was not the only scientist involved in developing this theory.

Scientific Enquiry/Activity Ideas:

Pattern Seeking	**Observations Over Time**	**Identifying, classifying and grouping**	**Practical Tests**	**Research**
• Compare the skeletons of apes, humans, and Neanderthals – how are they similar, and how are they different? • Compare the skeletons of a wooly mammoth and an elephant – how are they similar, and how are they different? • What is the most common eye colour in our class?	• Identify how a horse as evolved over time, using a fossil record.	• How do fossils form? - https://pstt.org.uk/resources/curriculum-materials/big-jurassic-classroom?fbclid=IwAR2bAM9lj7tZvcpH2UIvl-rmKHAIfK4XHFbZ8uye9rKZZhqU8O7eFDDT_Lc • What do fossils tell us about the Earth? Jurassic Coast Timeline - https://pstt.org.uk/resources/curriculum-materials/big-jurassic-classroom?fbclid=IwAR2bAM9lj7tZvcpH2UIvl-rmKHAIfK4XHFbZ8uye9rKZZhqU8O7eFDDT_Lc • https://www.linnean.org/learning/competitions/special-species - Create your own species and enter the Linnean competition • Can you classify these observations into evidence for the idea of evolution, and evidence against? • Identify which type of adaptation each animal displays (behavioural, physical, physiological). Can you explain why the animal has evolved this way? • Identify the features we have inherited from our parents/family - use photographs from the children. ***See the book 'A Creative Approach to Teaching Science' pg 68*** • Identifying different fossils, be a fossil detective - ***See the book 'A Creative Approach to Teaching Science' pg 68*** • Show pictures of contestants in the Triwizard cup from Harry Potter and the Goblet of Fire, children identify the adaptations requires so they could all survive underwater. • What adaptations does a cactus need to live in the desert? • Children are given an unusual environment and they have to identify what adaptations an animal would need to survive there and give reasons why. • Identify who the parents of the new mr men/little miss are based on the features they have inherited.	• Does environment affect foot flexibility? https://www.bbc.com/teach/terrific-scientific/KS2/zmpt382 • Are we all super tasters? https://www.bbc.com/teach/terrific-scientific/KS2-science-taste/zjf6vk7 • *Can we slow cooling down?* ***(See resource Card)*** • Why do birds have different beaks? Which is the best beak for the food? Tweezers, seeds, nuts, chopsticks etc. Bird Beak Challenge. Give children different implements eg toothpick, tweezers, pliers. They have to design a test to find out which is most successful at picking up a range of food sources eg pasta, raisins, rice. Which shape beak is best adapted to getting which food source? • Can you design a super leaf adaptation? ***See the book 'A Creative Approach to Teaching Science' pg 70***	• Who was Mary Anning and what was her contribution? - https://pstt.org.uk/resources/curriculum-materials/big-jurassic-classroom?fbclid=IwAR2bAM9lj7tZvcpH2UIvl-rmKHAIfK4XHFbZ8uye9rKZZhqU8O7eFDDT_Lc • What happened when Charles Darwin visited the Galapagos islands? What was his theory and how was it accepted? • How have animals and plants changed/adapted in response to their environments? Choose an animal to research. • How do camels survive in the desert? • Choose a plant that has an adaptation to protect it (e.g., Venus flytrap), find out where the plant is from and what conditions it grows well in, would it survive in our climate? • How does inheritance work? • Polar Bears habitat is rapidly changing, what possible futures do they face and can we predict which is most likely? • Design an animal with special adaptations to cope with the conditions in which it lives and then create a habitat for this creature to live in, through Art/DT.

Non statutory NC ideas

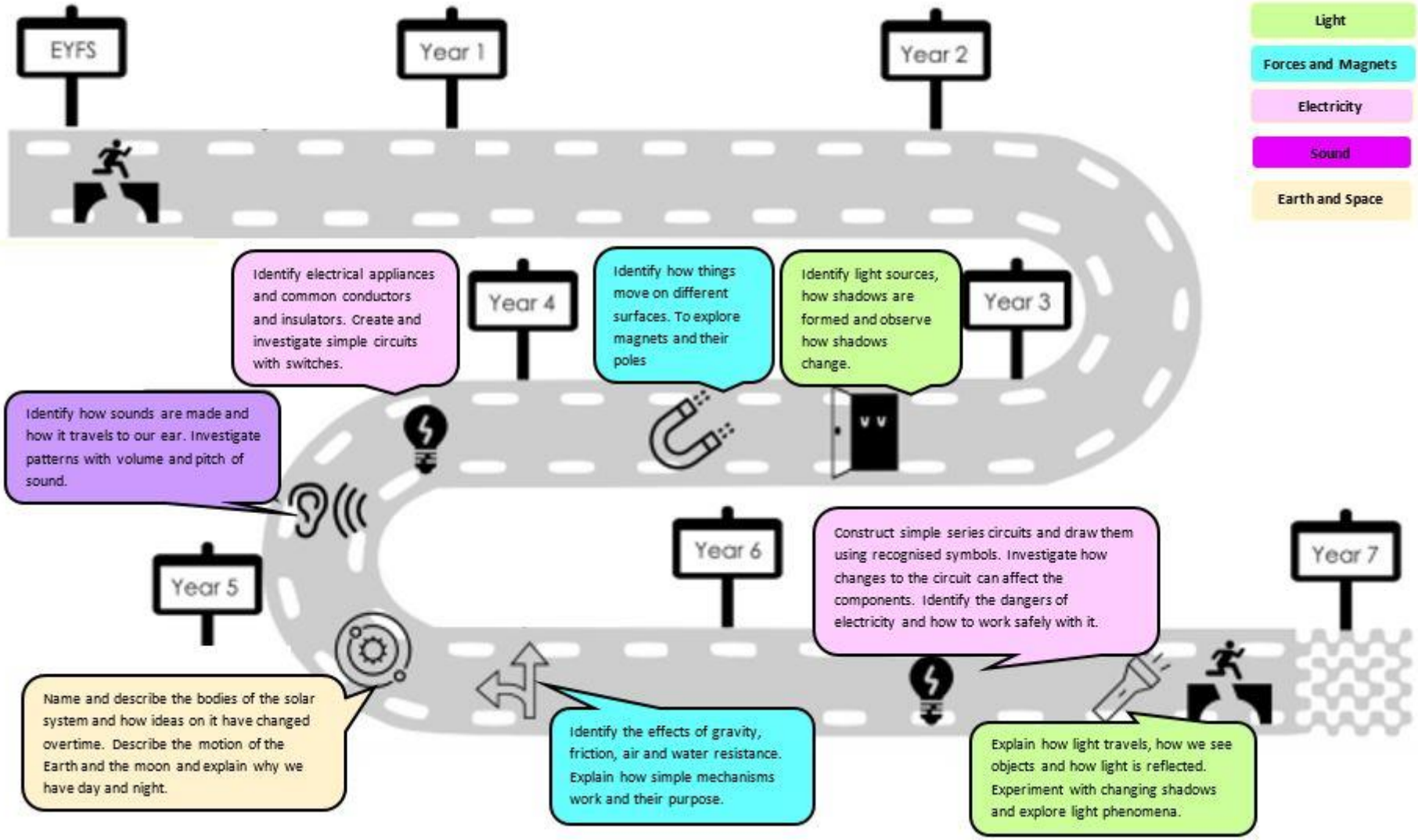
- Pupils might find out about the work of palaeontologists such as Mary Anning and about how Charles Darwin and Alfred Wallace developed their ideas on evolution.
- Pupils might work scientifically by: observing and raising questions about local animals and how they are adapted to their environment; comparing how some living things are adapted to survive in extreme conditions, for example, cactuses, penguins and camels.
- They might analyse the advantages and disadvantages of specific adaptations, such as being on 2 feet rather than 4, having a long or a short beak, having gills or lungs, tendrils on climbing plants, brightly coloured and scented flowers.

Scientists to Consider

Charles Darwin- Evolution , Alfred Russell Wallace – naturalist, Rosalind Franklin – DNA

Bright Ideas Time Suggestions	Vocabulary to be Taught	Possible Trips/Experiences	Possible Cross-Curricular Links	Potential Books to use
• Odd one out – chimp, Charizard, xmen • PMI – Should people be able to design their own babies? • Will all living things become fossils? • PMI – What if fossils didn't exist? • Spot the difference': Picture of Lyme Regis when Mary Anning was alive and present day. Ask pupils to note as many differences as they can. What are the important differences? What do they think might have caused the changes? • Odd one out.- Beak shape - https://explorify.wellcome.ac.uk/en/activities/odd-one-out/perfect-pinchers • Odd one out – animals that camouflage - https://explorify.wellcome.ac.uk/en/activities/odd-one-out/amazing-adaptations • Odd one out **–** mixed breeds – inheritance - https://explorify.wellcome.ac.uk/en/activities/odd-one-out/half-and-half • *As a child of two olympic medalists, would you automatically become one yourself?*	Adaptation, Evolution, Characteristics, Reproduction, Genetics, Variation, Inherited, Environmental, Mutation, Competition, Survival of the Fittest, Evidence, natural selection, Offspring, vary, suited, adapted, environment, species, advantages, disadvantages, living things, organisms, identical/non identical, Learned behaviour, selective breeding, generation/generations	• *BOX OF DELIGHT TO HIRE FROM DISCOVERY MUSEUM* - https://twamschools.org.uk/boxes-of-delight/the-story-of-evolution • *Mobile Planetarium into school* - http://immersive-experiences.co.uk/natural-selection • Washington Wildfowl and Wetlands Trust - https://www.wwt.org.uk/learn/learn-at-washington/learning-sessions/details/how-do-birds-live-in-wetlands/19/ - adaptations • Life Centre - https://education.life.org.uk/workshop/evolution-on-clippy-island • Life Centre - https://education.life.org.uk/workshop/dna-discovery • Life Centre - https://education.life.org.uk/workshop/animal-adaptation • Blue Reef Aquarium - What is evolution? - *https://www.bluereefaquarium.co.uk/tynemouth/education-and-group-visits/school-trip/*	**English:** • Write a biography about Charles Darwin. • Explanation text for how animals are suited to their **Maths:** **ICT/iPads:** • Interactive 'dog breeding' game on computers. • Internet to research how certain animals are suited to their environment. • Padlet can be used to generate the questions the children want to investigate in each topic. • Kahoot can be used as an assessment tool in lessons or at the end of each unit. • Yakkit kids as famous scientists	• Moth by Isabel Thomas and Daniel Egnéus - *Identify how animals and plants are adapted to suit their environment* • Darwin's Dragons – Lindsau Galvin - *Research the impact of Charles Darwin* • On the origin of species – Sabina Radeva - *Research the impact of Charles Darwin* • What Mr Darwin Saw—Mick Manning - *Research the impact of Charles Darwin* • Darwin's tree of Life by Michael Bright Claybourne - *Identify how animals and plants are adapted to suit their environment* • The Story of Life: A first book about Evolution by Catherine Barr - *Explain what fossils tell us about living things from the past* • The Molliebird (Jules Pottle) - *Identify how animals and plants are adapted to suit their environment* • Our Family Tree (Lisa Westberg Peters) - *Explain what fossils tell us about living things from the past*

Physics


EYFS
Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7
Light
Forces and Magnets
Electricity
Sound
Earth and Space
Identify electrical appliances and common conductors and insulators. Create and investigate simple circuits with switches.
Identify how things move on different surfaces. To explore magnets and their poles
Identify light sources, how shadows are formed and observe how shadows change.
Identify how sounds are made and how it travels to our ear. Investigate patterns with volume and pitch of sound.
Construct simple series circuits and draw them using recognised symbols. Investigate how changes to the circuit can affect the components. Identify the dangers of electricity and how to work safely with it.
Name and describe the bodies of the solar system and how ideas on it have changed overtime. Describe the motion of the Earth and the moon and explain why we have day and night.
Identify the effects of gravity, friction, air and water resistance. Explain how simple mechanisms work and their purpose.
Explain how light travels, how we see objects and how light is reflected. Experiment with changing shadows and explore light phenomena.

Year 6	Area of NC: Light (Physics)		
Learning Objectives *(in suggested order of teaching sequence)*	***Prior Learning relevant to this topic:*** **In Y3, children learnt that you need light to see things and that dark is the absence of light. They also learnt that light is reflected from surfaces. Children know that the sun is dangerous and they need to protect their eyes. Children know how shadows are formed and can find patterns about shadow size.** • Explain how light travels • Explain how light is reflected • Explain how we see objects Explain how shadows are created and identify how they can be changed • Explore and describe a range of phenomena surrounding light ***Pupils do not need to be taught the following content, which they will learn in later year groups:*** **In KS3, children will learn about light waves. They will also look at light waves travelling though a vacuum and the speed of light. Children will learn about the human eye and more complex ideas on light rays, transmission of light and colours and different frequencies of light.**		
Working Scientifically Objectives that link to this topic:	a) Use their science experiences to explore ideas and raise relevant questions b) Makes reasoned predictions using evidence to support their ideas and making links to other scientific knowledge c) Choose the most appropriate equipment to make measurements with increasing accuracy and precision, taking repeat measurements where appropriate. d) Decide appropriate way to record complex data and results (scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs) e) Draw conclusions from their work and link their conclusions to scientific knowledge and vocabulary f) To use oral, ICT and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of degree of trust in results g) Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas h) Independently discusses the success of their working methods and suggests ways of improving their work and say why they think this. ***Others could be relevant dependant on which practical enquiries you choose to plan***		
Learning Objective	**Objective Broken Down into Differentiation**		
	Below	***Expected***	***Above***
Explain how light travels	With support, can demonstrate that light travels in a straight line.	Can demonstrate that light travels in a straight line. Pupil can explain how light travels from a light source in straight lines.	Can describe with diagrams, as appropriate, how light travels in straight lines
Explain how light is reflected	Pupil can identify reflective materials and objects.	Can explain how light is reflected and use words the vocabulary angle of reflection and angle of incidence.	Can predict and explain with diagrams or models, as appropriate, how the path of light rays can be directed by reflection to be seen

Explain how we see objects	Pupil knows that we see because light is reflected from objects and enters our eyes.	Can describe with diagrams, as appropriate, how light travels in straight lines either from sources or reflected from other objects into our eyes.	Pupil can explain that we see images because our brain is sent messages along the optic nerve from the eye. Pupil can describe that we see colour because some colours are absorbed by an object when light is reflected from its surface.
Explain how shadows are created and identify how they can be changed	Pupil can explain that shadows are formed when light is blocked from passing through an object.	Pupil explains that a shadow has the same shape as the object casting it but the size of the shadow is larger when the light source and object move closer to each other as more of the light is blocked. Can predict and explain with diagrams or models, as appropriate, how the shape and size of shadows can be varied	Pupil shows their understanding of shadow formation by creating shadows of different sizes and shape by altering the position and intensity of the light source in relation to the object making the shadow.
Explore and describe a range of phenomena surrounding light	Pupil has observed and can simply describe, with support, some light phenomena including , rainbows, colours on soap bubbles, objects looking bent in water, prisms and coloured filters.	Can understand how light is refracted. Can explain what the visible spectrum is .	Can understand the way refraction alters the direction of light. Can describe what Isaac Newton discovered about light

Scientific Enquiry/Activity Ideas:

Ensure experiments/enquires are significantly different to Year 3

Pattern Seeking	**Observations Over Time**	**Identifying, classifying and grouping**	**Practical Tests**	**Research**
• How does the distance between the shadow puppet and the screen affect the size of the shadow? • How does light travel? Can light ever be bent or curved? Three card and pin hole through each experiment. • What colour is a shadow? • How does the angle that a light ray hits a plane mirror affect the angle at which it reflects off the surface?		• Can you identify all the colours of light that make white light when mixed together? What colours do you get if you mix different colours of light together? • Explore different ways to demonstrate that light travels in straight lines e.g. shining a torch down a bent and a straight hose pipe, shining a torch through different shaped holes in a card.	• What happens when we shine different coloured lights on differently coloured objects? • Light investigation http://downloads.bbc.co.uk/learning/bbcteach/Light_teacher_resource.pdf • Can you complete a maze using only light and mirrors? ***See the book 'A Creative Approach to Teaching Science' pg 113*** • How can we see around corners? Can you make something to prove this? • How does the distance between the light and the object change the size of a shadow? • Which material is most reflective?	• How have eyes evolved? • Is green really green? • What is a reflection?

Non statutory NC ideas

- Pupils might work scientifically by: deciding where to place rear-view mirrors on cars; designing and making a periscope and using the idea that light appears to travel in straight lines to explain how it works.

- They might investigate the relationship between light sources, objects and shadows by using shadow puppets.
- They could extend their experience of light by looking a range of phenomena including rainbows, colours on soap bubbles, objects looking bent in water, and coloured filters (they do not need to explain why these phenomena occur).
- Know how simple optical instruments work, e.g. periscope, telescope, binoculars, mirror, magnifying glass etc.

Scientists to Consider

Thomas Edison -Invented electric light bulb, Joseph Swan- Incandescent Light Bulb, Sir Isaac Newton

Bright Ideas Time Suggestions	Vocabulary to be Taught	Possible Trips/Experiences	Possible Cross-Curricular Links	Potential Books to use
• Odd one out – globe lamp, candle, sun, moon (sources of light) • What happens to the sun at night and the moon during the day? • Odd one out – glass, oxygen, orange juice, (states, transparency) • Odd one out – water, translucent cup, hands (transparency) • What if we didn't see colours?	Straight lines, Light rays. - Light, Shiny, Matt, Surface, Light , light Sources, dark/darkness, reflect/reflective/reflection , mirrors , Shadow, block/blocked, direct/direction, Transparent , Opaque , translucent, Natural Light: star, sun, moon, shadow , Artificial Light: torch, candle, lamp, Periscope , rainbow , Spectrum , filters , object , absorb , Travel, refraction, prism,	• Dr Research Workshops into School - http://drresearch.co.uk/?page_id=20 -Light and Dark • Life Centre - https://education.life.org.uk/workshop/light-shadows-how-we-see - Light Workshop • Washington Academy Trips - Could do more in-depth investigations	**English:** **Maths:** • Recording results in tables. • Measuring angles • Graphs on changing shadows **ICT/iPads:** • *Padlet can be used to generate the questions the children want to investigate in each topic.* • *Kahoot can be used as an assessment tool in lessons or at the end of each unit.* • *Explain everything and upload to Seesaw.* • *Use of data loggers*	• My Shadow by BY ROBERT LOUIS STEVENSON -*To explain how shadows are created and identify how they can be changed* • Newton's Rainbow: The Revolutionary Discoveries of a Young Scientist by Kathryn Lasky

Year 6	Area of NC: Electricity (Physics)
Learning Objectives *(in suggested order of teaching sequence)*	***Prior Learning relevant to this topic:*** **In Y4 children have learnt about appliances that run on electricity, made simple circuits and drew them (without symbols) as well as recognise what a switch does and identify common insulators and conductors.** • Construct a simple series circuit. • Identify and use recognised symbols when representing a simple circuit in a diagram • Investigate variations in how components work in a circuit. • Identify the dangers electricity presents and understand how to work safely with it ***Pupils do not need to be taught the following content, which they will learn in later year groups:*** **In KS3 children will look at parallel circuits, they will measure electrical current, learn about static electricity**
Working Scientifically Objectives that link to this topic:	a) Use their science experiences to explore ideas and raise relevant questions b) Makes reasoned predictions using evidence to support their ideas and making links to other scientific knowledge. c) Draw conclusions from their work and link their conclusions to scientific knowledge and vocabulary d) Decide appropriate way to record complex data and results (scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs) e) Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas, ***Others could be relevant dependant on which practical enquiries you choose to plan***

Learning Objective	Objective Broken Down into Differentiation		
	Below	***Expected***	***Above***
To be able to construct a simple series circuit.	Pupil can create a simple electrical circuit with more than one component – a complete circuit.	Pupil can create a simple series circuit and use accurate scientific vocabulary when explaining why It works	Pupil can create simple series circuits that work, even when given restraints eg only one wire.
To be able to identify and use recognised symbols when representing a simple circuit in a diagram	Pupils can identify and use some electrical symbols in a drawing of an electrical circuit but may not be accurate in drawing a circuit diagram.	Pupil can draw a circuit diagram using recognised symbols.	Pupils can look at circuit diagrams and explain whether the circuit will work or not
To Investigate variations in how components work in a circuit.	With support, pupils can change a component in a circuit so it work differently eg motor spins faster, bulb is dimmer, buzzer is louder Pupil begins to spot a pattern about number of cells in a circuit	Pupil can plan an investigation and choose variables to show how working components can vary in a circuit - including the brightness of bulbs, the loudness of buzzers, the speed of a motor and the on/off position of switches Pupil can explain what will happen to components in a circuit if the number of cells/batteries is increased or reduced. Pupils can use the words voltage accurately.	Pupil can use what they find out in their experiment to predict whether circuits would be bright, loud etc. They can use their knowledge to change cells and component in a circuit to achieve a specific effect. Pupil can use the terms current and voltage accurately.
Identify the dangers electricity presents and understand how to work safely with it	Pupil is aware of the need to be safe around electricity and can describe some precautions.	Pupil can explain the dangers of working with electricity and the safety precautions which must be taken.	Pupil can explain how electrical appliances have safety features in their circuits to prevent electrocution or electric shock.

Scientific Enquiry/Activity Ideas:

Ensure experiments/enquires are significantly different to Year 4

Pattern Seeking	**Observations Over Time**	**Identifying, classifying and grouping**	**Practical Tests**	**Research**
• Does the length of a wire effect the brightness of the bulb? • Why are insulators as important as conductors? •		• Can you identify all the symbols for electrical components? • Why are wires insulated in plastic? Does type of material make a difference? .	• https://www.ogdentrust.com/resources/phizzi-practical-fruity-batteries - fruit batteries • Can you make a coin battery? https://www.ogdentrust.com/assets/general/Phizzi_practicals_coin_battery.pdf • How much electricity do we use in our school? Can we use less? https://www.bbc.com/teach/terrific-scientific/KS2/z6bnrj6 • Can you design a burglar alarm device? • Can you turn a light off without a switch? • Can you make a light up christmas card? • Can you make a bulb light with only one wire? • Does length of wire make a difference?	• How has our understanding of electricity changed over time? • How have batteries changed over time? • Who actually invented the light bulb, Thomas Edison or Joseph Swan? • What did scientists like Humphrey Davy and Michael Farraday discover? • What are the dangers of a short circuit? • What renewable ways can we generate electricity?

			• How does the voltage of the batteries in a circuit affect the brightness of the lamp?How does the voltage of the batteries in a circuit affect the volume of the buzzer?	

Non statutory NC ideas

- Pupils might work scientifically by: systematically identifying the effect of changing one component at a time in a circuit; designing and making a set of traffic lights, a burglar alarm or some other useful circuit.

Scientists to Consider

Nikola Telsa -AC electric system, Alessandro Volta- Electrical Battery, Andre Ampere; Georg Ohm];; Michael Faraday; Thomas Edison.

Bright Ideas Time Suggestions	Vocabulary to be Taught	Possible Trips/Experiences	Possible Cross-Curricular Links	Potential Books to use
• Odd one out – torch , fridge and mobile phone • Odd one out – silver coin, copper coin, water, rubber tyre • PMI – What if there was no electricity in the world? • PMI – What if we could only run off solar energy?	Series circuit Circuit symbol, Fuse, Recognised symbols , Terminal Working safely , Voltage , current , Resistance , Short circuit , Faster/slower, Quieter/louder Electrical current; safety precautions; electrocution; electric shock;; watts; Ohms; resistance; amps; earth; live	• Electrical Lego Workshop - http://www.teambuildingworkshops.co.uk/lego-science-workshop/ • Discovery Museum - Light Bulb and Circuits - https://discoverymuseum.org.uk/whats-on/light-bulbs-circuits • Dr Research Workshops into School - http://drresearch.co.uk/?page_id=20 - Electricity Workshop • Washington Academy Trips - Could do more in-depth investigations • Life Centre - https://education.life.org.uk/workshop/electricity and https://education.life.org.uk/workshop/electrical-engineering-build-your-own-burglar-alarm	**Maths:** • Look at graphs` of electrical usage and answer questions **ICT/iPads:** • *Padlet can be used to generate the questions the children want to investigate in each topic.* • *Kahoot can be used as an assessment tool in lessons or at the end of each unit.* • *Explain everything/green screen report on the danger of electricity.*	• Electrical Wizard: How Nikola Tesla Lit Up the World (Elizabeth Rusch) • The Shocking Story of Electricity by Anna Claybourne

Other Useful Websites / Resources

For Bright Ideas Time

- https://explorify.wellcome.ac.uk
- Curriculum Coverage Document with Bright Ideas examples on

- Concept Cartoons on the School Server

For Class Resources and Planning

- https://www.ogdentrust.com/resources-cpd/resources
- **Post it note planning board in year group folder in Science on the server**
- https://explorify.wellcome.ac.uk
- https://pstt.org.uk/resources
- https://www.primarysciencebee.com – **example medium term plans**
- https://ypte.org.uk/audiences/teachers
- https://www.stem.org.uk (excellent resources for all topics and areas of science curriculum)
- http://www.ciec.org.uk/interactive-planning-tool.html **(good interactive planning tool)**
- https://www.bbc.com/teach/terrific-scientific
- https://www.bbc.com/teach/ks1-science/zhsr2sg (KS1)
- https://www.bbc.com/teach/ks2-science/zf3kt39 (KS2)
- http://www.ciec.org.uk/primary.html#resources
- https://wowscience.co.uk
- https://sites.google.com/view/primary-science-bee/home - **Examples of medium term planning that could support planning**
- http://www.rsc.org/learn-chemistry/resource/listing?searchtext=&filter=all&fLevel=LEV00000001&eMediaType=MED00000009&reference=primaryresource - Good cross-curricular links to science and topic
- https://endeavour.kew.org/app/os - good real life contexts and challenges surrounding plants
- https://nustem.uk/primarycareers/#tab-id-10 - **gives children a context for learning science by showing jobs related to the topic being taught.**
- https://www.linnean.org/learning/teaching/primary/discovery-kits - email for free resources to use of plants, life cycles, habitats, classification and evolution.
- https://www.bbc.com/teach/terrific-scientific/amazing-people/zhy4hbk - information on some influential scientists
- https://www.youtube.com/watch?v=gEGYU-0AtaM&list=PLg7f-TkW11iU11yatk_TcbA2tGH_WLe8d - Brian Cox School Experiments videos - a range of ideas for experiments in schools.
- https://nustem.uk/loans-boxes/ - free loan boxes of resources to have for 6 weeks
- A creative Approach to Teaching Science book - copy given to all teachers
- Concept Cartoons on the School Server
- Curriculum coverage document on the server
- Science cupboard resource list on the server
- Resources in subject > science > then individual year group folders - these have ideas for experiments or other useful resources when planning.

Science in the News

- https://www.reachoutreporter.com
- https://www.bbc.co.uk/newsround
- https://www.bbc.co.uk/news/science_and_environment

For CPD

- https://www.reachoutcpd.com
- https://www.pstt.org.uk/resources/cpd-units
- http://primaryscienceonline.org.uk/glossary-of-terms/
- Science Glossary on the server