

Ready to enter Year 9

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Science

Revision

Here we look back at the topics covered so far and spend sometime recapping over their content. This is an opportunity for you to create revision resources ready for the Year 8 Science exam. This is your opportunity to ask questions about ideas you are unsure on or for clarification purposes,

Ecosystems

Year 8 isn't over just yet...we still need to look at the ecosystems that keep our planet alive. We will be developing your knowledge of food chains and food webs from year 5 and looking at how the environment can impact those and what those impacts mean for the organisms in the ecosystem. We will use our practical skills to investigate how plants function and then understand what the terms deforestation and sustainability really mean.

Light

Using practical techniques you will investigate how light waves interact with their environment. We will look at the waves are different to sound waves and how we can use their properties to help us in our everyday lives. We will use dissection to help us look into the structure of the human eye and how it helps us to see.

Acids & Alkalis

You will use your practical skills to complete tests into acids and alkalis and understand their differences and uses. You will create your own indicators and investigate which product is best at their job.

Earth & Atmosphere

Here you will look at a number of cycles that impact our Earth and its life span. These include the rock cycle and the carbon cycle, one of which requires a practical involving chocolate and we also use all our chemistry knowledge to help understand global warming and it's impacts and how recycling may help us combat it.

Heating & Cooling

You are going to use your particle knowledge from year 7 to help you explain how substances change from one state to another and use practical techniques to explain how heat energy is transferred. You will also find out if there is a difference between heat and temperature.

Sound

You will look at the human ear in detail to see how the small structures within the ear help us to hear sounds. We will look at how sound waves travel and their properties. This will give us a better understanding within music and the things we do that damage our ears without us knowing.

Systems for Survival

You will take in in-depth look at the organ systems of the human body and how they keep us alive. You will be practically investigating biological enzymes and completing dissections on different organs to better understand their make up and how they work.

Year 8 Journey Starts Here



Ready to enter Year 8



Science

Periodic Table

You will look at the history of our periodic table and start to learn how to navigate the 100+ elements in it. You will look into what makes an atom different to an element to a compound. You will use your practical skills to investigate different chemical reactions and learn about the formulas and chemistry behind them.

Reproduction

This module links really nicely in with some of your PSHE lessons. We look at the biology side of reproduction and how we as species reproduce. We will discuss differences between boys and girls and help with any misconceptions you may have about how humans reproduce and where we get all of our traits from.

Particles

You will take your knowledge of particles further by looking at why they have the properties they do and use that particle theory to explain things such as the separation of mixtures, changes of state and diffusion. There are lots of practicals to help you in your understanding.

Introduction to Science

You will be introduced to the 3 separate Science disciplines. You will learn how to use key pieces of equipment such as Bunsen burners and microscopes and understand the safety symbols that come along with the new chemicals you will be using over the next five years of your Science career.

Space

You will investigate what we have in our solar system and look into depth about what a moon is, why it appears to change shape and the effects it can have on us. We will look into other planets and compare their day length to ours and think about why there may be differences between the planets. You will also look into the life cycle of a star.

Forces

You will use a number of practicals to help strengthen your knowledge of forces and their effects. You will use calculations to help you understand the amount of force needed and learn about a couple of new forces that you have not yet discovered in your science lessons.

Electricity

We will build on your knowledge from year 6 and using your practical skills we look into what current and voltage are and what may affect them. We will also look at problem solving and creating some products for different people.

Cells

You will learn the basic organelles that make up a plant and animal cell, what makes a specialized cell special, what are unicellular cells and how these cells create tissues, organs, organ systems and organisms. You will use your microscope skills to look at a number of different cells to help in your learning.

Year 7 Journey Starts Here



Ready to enter Year 7

Evolution & Inheritance

We will research the Earth's history, including key events that formed life as we know it. We will explain how traits are passed on to offspring and why we have similar characteristics to siblings and parents. We will research Darwin's Theory of Evolution and discuss the human impact on animal adaptations.

Animals inc. humans

We will explore what makes up a balanced diet and identify the impact of an unhealthy lifestyle on the human body. We will investigate the processes involved in the human digestive system, the circulatory system and the components of blood.

Living things & their habitats

We will explore classification of organisms and compare them based on their observable characteristics. We will investigate vertebrates and invertebrates as well as types of microorganism. We will research Carl Linnaeus and his work on the Linnaean System, We will build on our knowledge from Y5 to classify animals using a key and create our own.

Science

Electricity

During this topic we will construct simple series circuits and investigate how they can be altered. We will investigate and identify electrical conductors and insulators. We will explain how the brightness of a bulb can be altered and design a useful circuit of our own.

Light

During this topic we will explore how shadows are formed and altered. We will investigate mirrors and reflective surfaces and delve into the inner workings of the human eye. This topic links to the work you will do in KS3.

Lab Safety

Year 6
Journey Starts Here



**Ready to
enter Year 6**

Properties of materials

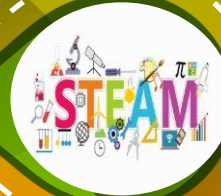
During this topic we will build on prior knowledge of common everyday materials and compare materials using their properties. We will carry out various practical investigations into properties of different solids, liquids and gases. We will explain sieving, filtering and evaporating and explain reversible and irreversible changes.

Earth and space

During this topic we will explore the planets that are in our solar system and investigate how they orbit the sun. We will investigate how ideas of orbit have changed over time. We will explore the moon as a satellite of the earth and how this causes moon phases. We will investigate how we have day and night and time zones.

Living things

During this topic we will look at different habitats and how organisms are adapted to live there. We will look at predator and prey animals and how their anatomies are similar and different. We will study organism relationships through food chains and webs and use keys to identify organisms.



Science Animals inc. humans

During this topic we will explore the lifecycle of a human and how they develop in the womb and with age. We will investigate how gestation periods and lifecycles vary between species.

Forces

During this topic we will build on prior forces knowledge to explain key forces using correct terminology. We will explore mechanisms and gears and investigate the effects of some common forces.

Lab Safety

**Year 5
Journey Starts
Here**

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