

# FUTURE EARTH

Can you find out?

1. What happens to waste that is not recycled?
2. What is renewable energy?
3. How many years does it take a single aluminium can to decompose?
4. How many UN sustainable development goals are there?
5. How is hydroelectricity produced?

Did you know?

The UK produces 100 million tonnes of waste every year!



What are the UK's natural resources?



Look to the future!

What will homes of the future look like using sustainable building materials and running on sustainable energy? Are you an architect for our future earth?

## Key Vocabulary

**Sustainability** – humans must interact with the environment in a way that ensures there will be enough resources left for future generations

**Renewable energy** – a natural source of energy that will never run out. E.g. Wind, the Sun and water are renewable energy sources that can be used to create electricity

**Fossil fuels** – natural resources are formed from the remains of plants and animals that died, e.g. oil, coal and gas.

**Natural resources** – materials or substances that are produced by the environment

**Recycle** – waste that can be made into something new.

**Preservation** – People who care about conservation try to preserve natural resources so they will still be around in the future.

**Reusable** – capable of being used again or repeatedly

**Bioenergy** – refers to electricity and gas that is generated from organic matter, known as biomass. This can be anything from plants and timber to agricultural and food waste – and even sewage.

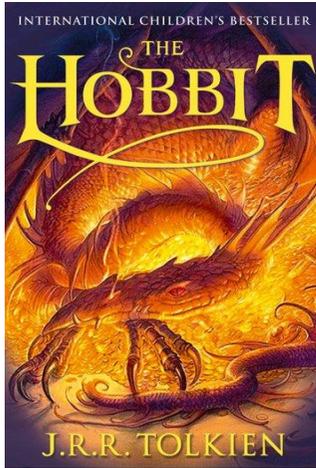
**Biodegradable** – can be broken down naturally and return to nature without having a harmful impact on the environment

**Carbon Capture** – removal of carbon dioxide from waste gases from power stations and then storing it in old oil and gas fields or coal mines underground.

**Carbon Footprint** – the amount of carbon dioxide released into the Earth's atmosphere as a result of human activities, rather than any natural emissions

## English

We will be continuing to accompany Bilbo on his perilous adventure. This term, we will be using our narrative skills as we come face to face with some of the foes that the company meet on their way. We will also be considering why wolves are portrayed negatively in fictional writing. Should wolves always be portrayed as the villain?



# FUTURE EARTH

## Science

Life finds a way! Our planet has been changing for millions of years and a vast array of animals and plants have called it home. We will be finding out how inherited traits lead to adaptations over time to ensure survival. The inability to adapt or adapt fast enough can lead to extinction! How will animals, including humans, and plants need to adapt to survive in the future! How will we continue to evolve?

## DT

Fancy pitching your 'Grand Design' in the 'Dragon's Den'?

This term in DT, you will be investigating and analysing 'future' homes. How are eco-friendly homes built to help our future earth? What materials are used?

From this, in teams, you will be designing your own sustainable eco homes. You will communicate your ideas through discussion, annotated sketches and diagrams.

Finally, you and your team will 'pitch' your plans to the 'dragons'! Will you secure the funding required to build the homes of the future?

## Geography

In Geography we will be developing our understanding of sustainability and equity. Thinking about the global distribution of resources, we will consider alternative energy sources and building materials and will work within ICT to develop our own vision of sustainable living.



## Music

We believe that it is very important that all children should experience playing a musical instrument. Before you can do this, you need to be able to read music! This term, you will be exploring with and learning to read musical notation.



## ICT

In ICT we will be exploring our theme of Future Earth by coding within Minecraft. We will first of all learn how to code within the game and then build our eco house that would enable sustainable living in the future.

## English Key Vocabulary

**Conjunction** – a word, or words, used to connect two clauses (parts of a sentence) together.

**Parenthesis** – adding extra information to a sentence using brackets, dashes or commas.

**Ellipses** – commonly used to indicate the omission of words, lines or paragraphs from a passage. Use an ellipsis when omitting (leaving out) a word, phrase, line, paragraph, or more from a quoted passage.

**Cohesion** – when a person's writing has **cohesion**, an attempt has been made to link clauses, sentences and paragraphs so that the writing 'hangs together'.

**Suspense** – creates tension and mystery within your writing.

**Expanded noun phrases** – a descriptive clause normally made up of a noun as well as one or more adjectives

**Figurative language** – uses figures of speech to give a text more richness and depth, often comparing things to other things to create an image in the reader's mind, e.g. similes, metaphors, personification.

## Maths Key Vocabulary

**Area** – Area is the term used to define the amount of space taken up by a 2D shape or surface. We measure area in square units e.g.  $\text{cm}^2$  or  $\text{m}^2$ . Area is calculated by multiplying the length of a shape by its width.

**Volume** – Volume is the amount of 3D space an object occupies or takes up. You can work out the volume of a shape by multiplying height  $\times$  width  $\times$  depth.

**Algebra** – The arithmetic operations of  $+$ ,  $-$ ,  $\times$ , and  $\div$  help us solve mathematical problems.

**Algebra** is commonly used in formulas using these operations, and the rules of inverses, when we do not know at least one of the numbers, or when one of the numbers can change.