

Year 6 Knowledge Organiser Science— Sustainability

Key Vocabulary

1	sustainability	The ability to sustain something without it having an impact on another thing. You use the word sustainable to describe the use of natural resources when this use is kept at a steady level that is not likely to damage the environment.
2	reduce	If you reduce something, you make it smaller in size or amount, or less in degree.
3	reuse	When you reuse something, you use it again instead of throwing it away.
4	recycle	If you recycle things that have already been used, such as bottles or sheets of paper, you process them so that they can be used again.
5	environmental impact	The effects that a service, product, project or plan will have on the environment.
6	biodegradable	Something that is biodegradable breaks down or decays naturally without any special scientific treatment and can therefore, be thrown away without causing pollution.
7	non-renewable	Will not be able to be replaced or made again.
8	finite	The world will eventually run out of a material or substance. For example crude oil.
9	fossil fuels	Fossil fuels are fuels such as coal or oil that are formed from the decaying remains of plants or animals.
10	combustion	Combustion is burning something or the process of burning.
11	pollutant	Pollutants are substances that pollute the environment.

Key Learning

1	Sustainability is meeting the needs of the present without sacrificing the ability of future generations to meet their needs. There are three things we can do at home to support sustainability. They are known as the 3 R's ' Reduce, Reuse and Recycle '.
2	Energy is released from fuels when they are burnt. When we light a fire, we feel warmer. This is because energy is being released when the wood is burnt. The scientific name for burning is combustion . In a combustion reaction, a fuel reacts with oxygen to produce carbon dioxide and water. Then, energy is released. This energy can be used to heat water, generate electricity and power cars. In science, this reaction (combustion) is shown with a scientific equation.
3	The air that surrounds the Earth contains a small amount of carbon dioxide. Carbon dioxide in the air traps heat, keeping the Earth warm. As carbon dioxide is responsible for keeping the Earth warm, it is called a 'greenhouse gas'. Greenhouse gases are important for keeping the Earth warm enough for life to exist. The more carbon dioxide there is in the air, the more heat that is trapped. Humans have burnt more fuel since the industrial revolution than ever before. As a result, more and more heat is being trapped. This is causing the temperature of our globe to rise. This is called global warming.
4	Global warming is causing ocean acidification. This is where coral reefs are becoming bleached potentially killing coral. Aquatic life cannot survive. Changes to the climate can increase the likelihood of extreme weather. Hurricanes and floods are more likely, causing devastation and risk to lives. Rising global temperatures means that the polar ice caps melt.

Important figures

David Attenborough	David Attenborough has said that global warming is "our greatest threat in thousands of years". Known for countless nature films, Attenborough has gained prominence recently with his "Blue Planet II" series, which highlighted the devastating effect of pollution on the oceans. "Climate change is running faster than we are and we must catch up sooner rather than later before it is too late."
Greta Thunberg	History was made in 2019 when 17-year-old Swedish activist Greta Thunberg was nominated for a Nobel Peace Prize for her efforts combating climate change. Greta is known for being a headstrong environmentalist, but what many people don't know is that she is vegan, choosing every day to eat plant-based. Greta serves as an example of how to be a better human for the environment. She encourages adults—and people of her own age—to make changes now.