

Essential Learning

In our first block, we investigate climate change and discuss reasons for its inclusion as part of the United Nations' Sustainable Development Goals. What is it? What impact is it having? What causes it? How are communities adapting? We will then write poetry to raise awareness of the issues and action that can be taken.

Secondly, we focus on science - changes to materials that are either reversible or irreversible. We experiment with dissolving, filtering, melting, evaporation, separation and burning. Investigating the effect of chemical changes in our everyday life and new materials that have been created by chemists. We look at the effect of plastics in our oceans. We will write up our scientific experiments

In the third block, we describe the differences in the life cycles of mammals, amphibians, insects and birds. We will also be learning about the life process of sexual and asexual reproduction in plants and animals, as well as humans. We look at the changes as humans develop from babies, through puberty to old age.

Year 5: Climate Warriors



Block 1

- Plastic Pollution & its environmental impact
- What is climate change
- Understanding the Greenhouse effect
- Climate change impacts & stories
- Taking action against climate change



Block 2

- States of matter
- Changes to materials which are reversible or irreversible:
 - by mixing, dissolving, burning, heating, melting.
 - separation by evaporation, filtering & sieving.
- Chemical changes in everyday life.
- Writing scientifically



Block 3

- Describe the difference of the life cycles of a mammal, insect, amphibian and a bird
- Describe the life processes of ageing and reproduction in animals and humans
- Understand the changes during puberty of both boys and girls
- Writing an explanation text

Year 5: Climate Warriors National Curriculum Links

Science

- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Find out about different types of reproduction, including sexual and asexual reproduction in plants, and sexual reproduction in animals.
- Describe the life process of reproduction in some plants and animals including mammals and humans.
- Understand that sexual intercourse can lead to conception and that is how babies are usually made.
- Understand that sometimes people need IVF to help them have a baby.
- Describe the changes as humans develop to old age.
- Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- Demonstrate that dissolving, mixing and changes of state are reversible changes
- Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda
- Explore reversible changes, including evaporating, filtering, sieving, melting and dissolving, recognising that melting and dissolving are different processes.
- Explore changes that are difficult or impossible to reverse, for example, burning, rusting and other reactions, for example, vinegar with bicarbonate of soda.
- Observe and compare the changes that take place, for example, when burning different materials or baking bread or cakes.

Geography

- Understand the difference between climate & weather
- Recognise that Earth's climate is changing and humans are contributing to this
- Understand how greenhouse effect works
- Identify some human activities contributing to climate change.
- Understand what a carbon footprint is and recognise that everybody in the world has a carbon footprint but some people are responsible for more CO2 emissions than others.
- Identify some of the current and potential impacts of climate change on people and our planet.
- Think critically about the impacts of climate change.
- Recognise that everyone is affected by climate change but people living in poverty are the most vulnerable.
- Describe some ways in which communities around the world are being affected by climate change. To empathise with some of the people who are most at risk from climate change.
- Understand what climate change adaptation means.
- Describe some ways in which communities around the world are adapting to the effects of climate change
- Identify a range of possible actions that could be taken against climate change.
- Understand that actions will vary according to both the ease with which they can be carried out and the impact they will have.

PSHE

- I am aware of my own self-image and how my body image fits into that.
- I can explain how a girl's body changes during puberty and understand the importance of looking after yourself physically and emotionally.
- I can describe how boys' and girls' bodies change during puberty.
- I can identify what I am looking forward to about becoming a teenager and understand this brings growing responsibilities (age of consent)
- I can identify what I am looking forward to when I am in Year 6.

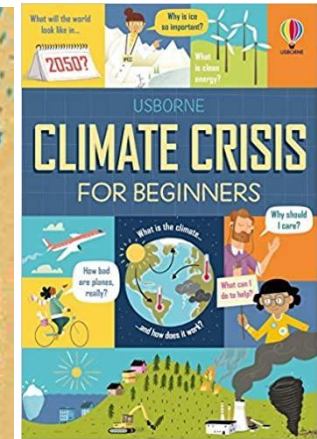
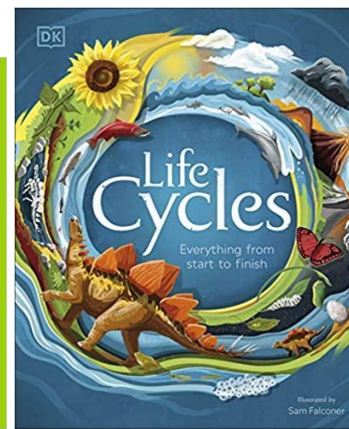
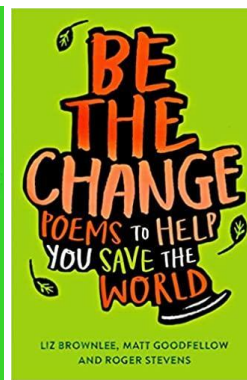
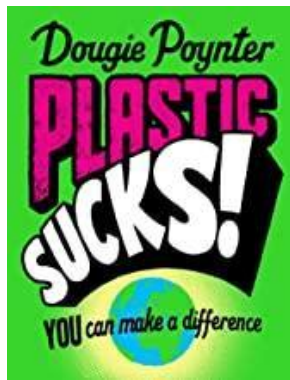
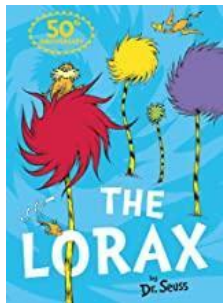
Key vocabulary

Climate change, Green Houses gases, consequences, pollution, environment, Global warming, carbon emissions, ozone layer, fossil fuels, renewable energy, atmosphere, Greenhouse effect, oxygen, carbon dioxide.

Reversible changes, irreversible changes, evaporation, dissolving, solution, filter, mix, melting, burning, material.

Human, animal, mammal, reptile, amphibian, insect, flowering plant, sexual and a-sexual reproduction, lifecycle, life stage.

Key texts



Writing genres

Poetry - experimentation with rhythm and creating a strong poetic persona.

Writing to inform – Scientific methods and conclusions.
Explanation texts.