



May we give them roots to grow and wings to fly.

Our Curriculum – Medium-Term Planning



Term and Year:	Spring 2
Class:	Year 6
Subject:	Geography
Key Unit Question:	How can our school reduce its plastic waste?
Memorable Experience:	O'Brien Waste Recycling Artist?

Vocabulary that will be taught:

biodegradable – something that can be decomposed by bacteria or other living things
carbon emissions - emissions stemming from the burning of fossil fuels including carbon dioxide
durability – a property of material meaning it can last a long time without being damaged
extracted – removed or taken out by effort or force
fossil fuel - fuel such as coal or oil that is formed from the decayed remains of plants or animals

incinerate – destroy waste material by burning
microplastics – tiny pieces of plastic that are less than 5 millimetres across
raw materials – materials that are in their natural state before they are processed or used in
refinery – a production place that breaks down certain materials and makes raw materials into products of value
synthetic – products that are made from chemicals or artificial substances rather than from natural ones

National Curriculum Objectives:

- Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies
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Rationale:

In this unit, pupils will learn about plastic and its origins. Pupils will explore the uses of plastic and the problems it can create. Pupils will explore ways of reducing plastic waste at home, at school and in general. Pupils will conduct fieldwork on school grounds to observe, measure and record how effective their school is at reducing plastic waste and to implement new ideas to improve. Pupils will then present and evaluate the data gathered using a range of methods, including sketch maps, graphs, and digital technologies

Prior Knowledge:

Year 1/2: Use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment.

Year 3/4: Use fieldwork to observe, measure, record and present the human and physical features in the local area using various methods, including sketch maps, plans and graphs, and digital technologies.

What do we intend pupils to know and be able to do at the end of this unit?

Substantive knowledge:

- I know what the uses of plastics are
- I know the problems that plastics can create
- I know effective ways to reduce plastic waste

Disciplinary knowledge:

- I can conduct an audit of various locations around the school grounds
- I can record results after collecting data
- I can present data to the rest of the class



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Key lesson questions		Activities/Key points
Lesson 1	What is plastic waste? • I understand what plastic is and its history • I can understand the uses of plastic • I can understand the problems that plastic creates	• Children are to write down everything they already know about plastic waste and how it can be reduced. • Explore information including what is plastic, the history of plastic, the life cycle of a plastic bottle and the production of plastic. • Children are to write down as many uses as they can think of for plastic in their school, at home and any other places they can think of. Where does plastic waste come from? – Explain to children that much plastic waste comes from land and ends up in the oceans. Share facts and figures on the slide. • Explain to children the problem with single-use plastics. Consider how long does it take for single-use plastics to break down? Read about the problems with plastic in our oceans and plastic waste on a global scale. Look at a map and the countries that are the best and worst offenders for emitting plastic into the oceans. Children are to consider which countries emitted the least and the most and potential reasons for this. • Children are to write a letter to the council explaining that they should do more to clean up the beaches and provide better rubbish disposal and recycling services.
Lesson 2	What can our school do to reduce plastic waste? • I can explain ways we can reduce plastic at home and school • I can understand the 5 R's • I can explain how plastic is recycled and reused	• Children are to discuss the question 'What can we do to reduce plastic waste?' • Consider the five R's Rethink – what things do you need? Refuse plastic where you can. Reduce the amount of plastic you use. Reuse items whenever you can. Recycle as much as possible. • Plastic pledge – From the list of ideas on the previous slide, the children are to select one they are not currently doing that they will take on as a pledge (promise) to reduce plastic waste in the future. They are to write their pledge on their worksheets and decorate them to be displayed in the classroom as daily reminders. At the end of each month, you can review how successful everyone has been towards achieving each one. • Explain to the children how plastic waste must be reduced for environmental reasons. Inform children that plastics are sorted by type, shredded, washed, melted, pelletised and finally made into new products. Inform children that plastic is exported worldwide, where it is cheaper to process and the rules and bodies that regulate this process. • Explain to children that we must protect our planet for a sustainable future through recycling. Go through some symbols and their definitions. Children are to use their knowledge from this lesson to complete a table about the best ways to reduce each plastic item. • Children are to complete a 'plastic diary' on their challenge worksheets to record all single-use plastic used in a week.

Lesson 3	How can we carry out effective ways to reduce plastic waste in school? • I can plan effective ways to reduce plastic waste in school • I can carry out effective ways to reduce plastic waste in school	• How can our school reduce its plastic waste? – Fieldwork investigation • Explain that as we have looked at the facts about plastic and suggested possible ways to reduce plastic waste at home and school, it is now time to consider how we can implement these ideas. Explain that the children will be conducting fieldwork within the school grounds to ensure we are creating a sustainable future. • Staff and student survey – Children are to complete each class's staff and student survey worksheet. • Action plan – Children must create an action plan on their worksheets and agree on one as a whole class. • Fieldwork recording worksheet – Explain to the children that once they have decided on a class action plan, they will conduct an audit of various locations around the school grounds to assess what types and amounts of plastic pollution can be found. Then, they will rate the specific location out of 5 based on its general cleanliness and visibility of plastic waste, with 1 rating as poor and 5 rating as excellent on their fieldwork recording worksheets. These samples will be analysed for the next activity. • Data collection – Once the children have collected examples of plastic waste from around the school grounds, they will complete the data collection worksheet. • Bin audit – Inform the children about the bin audit process and the materials needed to complete the activity. The children will need a table to record results, scales, and a selection of bins, tarpaulin, gloves and buckets.
Lesson 4	How can we record and evaluate the effectiveness of reducing plastic waste in school? • I can record effective ways to reduce plastic waste in school • I can evaluate effective ways to reduce plastic waste in school • I can explain future solutions for reducing plastic waste	• How can we present the data collected? – Children are to complete 1 template to present their data on their worksheets. • Children are to use any photos they have taken to create a group project on their iPad. There is no set format for how their project should look. • Explain that once their project is complete, they will present it to the class. Their iPad screens can be shared using Airplay so that everyone can see the work they have created. • Action plan review – Explain how the children should refer to and review their action plan at an appropriate time. • Consider the question 'What is the future of plastic waste reduction?'
Lesson 5	How can our school reduce its plastic waste? End of Unit Assessment / Knowledge Harvest	