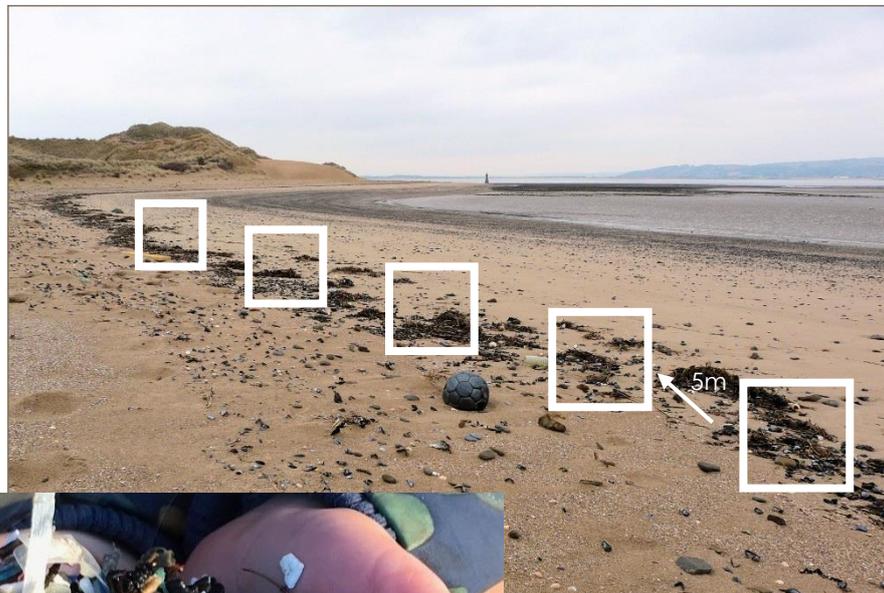


The Plastics and Sustainability team

School Resources Pack: Key Stage Two (Upper)

Together, we can make plastic pollution a thing of the past



Welcome

This pack contains the instructions for delivering 1-1.5 hour workshops to primary school children about plastic that are in line with the national curriculum. There are four sessions aimed at different age groups; Key stage (KS) 1 lower, KS1 upper, KS2 lower and KS2 upper. They are designed so that the same children could receive all four sessions throughout their time at primary school but also work separately. For delivery each session has a PowerPoint, worksheets and activities.

When delivering a session be as engaging as possible, the aim of these sessions is to enthuse and educate children around the issues of plastic pollution.

Be enthusiastic, be kind and have fun!

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Key Stage Two (upper)

What to Expect

Children in KS2 (Upper) will be aged 9-11 and in their final years at primary school. At this age they will be used to sitting still for lessons and will be encouraged to ask more complex questions and think for themselves. Using some scientific language will be appropriate. The children will be encouraged to make their own decisions about what they want to find out by planning enquiries and recording data.

Teachers Top Tips

- Don't talk when a child is answering a question
- Praise a response even when the answer is wrong – independent thinking is important
- Be animated and passionate
- Don't worry about asking the class so stop talking and listen
- Talk as little as possible (maximum 10 minutes at a time)
- Do not always pick the same child to answer questions

National Curriculum

According to the national curriculum there are certain skills and things that should be learnt before the end of each Key Stage. For upper Key Stage 2 some of these skills are:

- Planning experiments to find out what they want to know
- Ask questions about their local environment
- Comparing and grouping materials based on evidence
- Local animals and adaptations to their environment
- The impact of diet on people and animals

Learning Objectives

1. To understand how to conduct a scientific survey in the field
2. To apply previous knowledge to solve a new problem

Resources Required for Workshop

For the workshop resources have been produced to aid you in delivering the session. For the upper KS2 workshop the following things are required:

- Virtual quadrats (25 different sheets)*
- 30x Microplastic survey worksheet*
- 30x Pledge cards*
- PowerPoint presentation
- 6x Word bank*

Ask the school to provide:

- One mini white board per child
- A4 paper

*these resources require printing and cutting out before the session. Please reuse resources where possible, items such as the cards can be reused by many groups. (All numbers given are based on a class of 30; more worksheets and pledge cards will be required for a bigger class as the children need 1 each).

Word Bank

A word bank provides the key words used throughout the workshop for the class, these should be printed out and placed on each table to help facilitate the learning and spelling of new vocabulary. Some words may already be known and some may be new.

Activity Instructions

Activity 1: Starter 1 – What's the connection?

Time: 5 minutes

PowerPoint slides: 3-4

The first slide for this activity shows a supermarket and a turtle, show this slide and ask; what is the connection? Get the class to write their answers on individual white boards. Once the class have shown their answers take them through the link on the next slide.

Activity 2: Starter 2 – How does it make you feel?

Time: 5 minutes

PowerPoint slides: 5

This short video shows a manta ray swimming through plastic off the coast of Bali. Ask the class to write on their white board how it makes them feel. You may want to write some of the best, or most common, answers on the board at the front. Have some words prepared for how it makes you feel. Also ask how the manta ray might feel.

Activity 3: Main 1 – Virtual microplastic survey?

Time: 30 minutes

PowerPoint slides: 6-12

The virtual quadrats demonstrate how scientists can measure the amount of microplastic on beaches. This uses the methodology from the [Big Microplastic Survey](#).

- Lay out the quadrat worksheets on the tables (use 5 tables to represent the different 1m² squared quadrat)
- Give out the worksheets and get the class to go around to all the different sheets to count how much plastic is in each 10cm²
- Once all the class have finished counting the plastic ask them to sit down and fill out the rest of the worksheet. If some of the class haven't got around all of the quadrats then they can share answers.
- Some may need help calculating means, the calculation slide should help with this

Activity 4: Main 2 – Sand and plastic separation

Time: 15 minutes

PowerPoint slides: 13-14

When put into salt water most plastic will float and sand will sink. At KS2 children should be finding out things for themselves. This will be a discussion exercise, rather than practical. In groups of 3 or 4 get the class to discuss how they might do this, provide A4 paper for each group to draw/write their ideas on. There are some prompts provided on the slides but only use these if it seems like the class are struggling. Get each group to feed their ideas back to the class.

Activity 5: Plenary – Pledges

Time: 10 minutes

PowerPoint slides: 15

Towards the end of the session get the class thinking about what they could do to reduce the amount of plastic that they use. This could be something at home, school or in a club they belong to. Get all the children to write this on a pledge card what they personally will do. These can be shared with the Plastics and Sustainability team by posting them to our address at Manley House.

Presentation

The presentation included contains notes on each slide to help you deliver it, these are a guidance and you can add in as much or as little as you like. You may want to add in a slide after the title slide explaining a bit about what your job is. The timings for each activity are also a suggestion, some groups may work quicker than others, so you can tailor this to each individual group. If you are running out of time you may want to remove the colour/drawing activity from the round-robin and leave the sheet behind for them.

There will be at least one other adult in the room with you (the teacher) and probably a teaching assistant. You can use them to help with activities and checking that the children understand what you expect of them. You could also bring a colleague with you to help with delivery.

Importantly: Enjoy the experience!

If you have any questions about any of the schools resource packs contact us. We would also love to see pictures of the workshops being used and the pledges made. Send any queries or images to plasticsandsustainability@environment-agency.gov.uk and send your pledges to; the Plastics and Sustainability Team, Manley House, Kestrel Way, Exeter, EX2 7LQ.