

All About recycling: Reducing waste to save the planet

Do you know what happens to the items you recycle? Get the best out of this engaging article about reducing waste with our wide variety of associated lesson ideas. For more articles and lesson maps, visit schools.theweekjunior.co.uk/lesson-ideas

English in context

Vocabulary work

The following activity ideas develop vocabulary using the article:

- Look at new vocabulary from the text e.g. **transformed, fibres, landfill, deposit, facilities**. Identify the word class and use in partner sentences.
- Make a list of words that begin with re-. Identify what the prefix means when added to a root word. Use word banks and dictionaries to add further words beginning with re- and to understand their meanings.
- Create an illustrated dictionary entry for one of the words identified from the above activity. Create a class dictionary with their examples. Revisit alphabetical order. Each word can be given the correct word class. Identify where words could be given more than one word class.
- Look at where suffixes can be used to extend the use of these words further e.g. reduce- reduction, recycle- recyclable etc. Pupils can then use words identified to write sentences on the theme of caring for the environment.
- Play Find Your Word Friends. Create word cards with identified vocabulary. Add in two other examples that are synonymous with that word. Each child is given a card and must find their two word friends.
- Play Word Class Bingo from the vocabulary identified in the text. Children can choose any ten words in the extract. Place these into a grid and underneath identify which word class the word they have selected belongs to. The teacher then acts as the bingo caller calling out a variety of word classes at random. The children can mark it off their grid if they have it. You can play for a full house, a line or 4 corners.



Reading comprehension

Use the article to answer the following questions in a whole class reading session, a grouped guided reading session or as an independent task:

1. How much plastic gets into the world's oceans in one year?
2. What is the disadvantage of recycling paper?
3. What is one of the things that Germany does encourage recycling?
4. Drawing ideas from the text, name **two** ways in which you can reuse something instead of throwing it away.
5. What was the first environmentally friendly country?
6. Glass is recyclable. Why is it important that it does not end up in a landfill site?
7. Who is responsible for making new things out of recycled materials?
8. 'It is important to recycle because this reduces the need to make new products from scratch...' What does the phrase 'from scratch' mean in this sentence?
9. Look at the section What can be recycled? Which word does the author use to suggest that recycling is not always an easy thing to do?
10. In the same section, how does the author suggest that the way we recycle plastic has improved over time?



Writing outcomes

The environment is a topic that children often feel passionate about. Use this interest to inspire lively writing outcomes such as these:

- Research further about out how paper, glass and plastic are recycled step-by-step. Children could then write to explain to their reader how this occurs. This could be done alongside a flowchart to show the chronology of events in the process.
- Use drama/hot seating to express the thoughts of the item as it travels from the home and through the recycling plant. Follow the drama by writing an adventure story or monologue from the point of view of a glass bottle. The children could describe their adventures as they go through each aspect of the recycling journey. It is a good opportunity to use descriptive skills and humour. *What will the glass bottle be transformed into at the end of the story?*
- Create a presentation or assembly for other pupils based on research about reducing waste to save the planet. This could incorporate a PowerPoint.
- Write a 'Top Tips for Recycling' leaflet. Use the knowledge gained across the curriculum to inform younger readers of why they need to recycle and give them tips on how they can do this both at home and at school. This can then be shared with a younger class in a lovely paired reading opportunity.



Cross-curricular opportunities

Maths

- Using the rubbish collected at playtime and lunch time, calculate the amount that would be generated in a week, month and year of each type of rubbish e.g. crisp bags, healthy wrappers, tin foil etc.
- Use the stimulus of the Pacific Trash Island to consolidate the understanding of area and perimeter. As some of these islands can be up to 10m deep, pupils can also look at volume. Investigate which are the biggest Trash Islands. Draw a scale diagram of these.
- Use maths alongside the rubbish sorting activity in Science. Display the results as a bar chart or pictogram. Younger children may wish to take part in a lunchbox survey. They ask children in their class what types of packaging they have in their lunch box and tally the results.



Geography

- In order to understand how our waste affects the local environment, identify where the local recycling and landfill waste sites are. This could be by using Google Earth or local maps. Children could create routes to local recycling centres, which could include supermarket recycling bins, charity shops where things can be reused, or landfill sites.
- Take part in some local fieldwork and investigate the area around the school. This could be in the form of a litter survey. *What kind of litter do the children observe? Where are the nearest waste bins? Is there any provision for recycling this rubbish?* Based on these investigations, the children then write a persuasive letter to the council asking them to add more recycling bins/ improve the recycling opportunities in the area.



Design/Technology

- The children collect litter and talk through the different packaging for each item they have collected. *How can it be reused or recycled?* The children will identify common foods and be challenged to design more environmentally-friendly packaging.
- The children can think about different uses for the packaging ('junk') that they have found. They might create junk instruments (see Music).



PSHE

- Discuss the importance of taking responsibility for our own actions. Identify what responsibilities the children hold at home. This may be caring for a pet, making their bed or doing a specific chore. *Why is it important to take our responsibilities seriously?* Children illustrate five key responsibilities they hold either at home or at school.
- Develop the discussion further and look at our responsibility to reduce the amount of plastic we use. Debate in table teams: *Should plastic be banned?* This can be linked to the Design and Technology opportunity to design improved packaging.



Science

- Show a variety of pictures of plastic pollution. This could be an image of the Pacific Trash Island. Link to Geography and ask children to identify the location. *Which products make up this island?* Refer to the article and look at the image of the turtle and the plastic bag. Ask children to design a poster to inform and persuade their audience to recycle their plastic waste.
- Collect the wrappers/packaging from the children's break time snacks. Sort the packaging according to their properties. Group and classify the materials. Record the results in a table. Children should identify the raw material that the packaging is made from.
- Link to scientific understanding of magnets. Give children a range of objects and allow them to experiment to see which of these are attracted and repelled by the magnet. *Are there any common properties for those materials? How might this help in a recycling centre?* Children then can create a set of rules/tips to help the workers in the recycling plant predict which materials will/will not be separated in this way.



Art

- Look at the work of Derek Gores. Study what inspires his work. He uses shredded magazine paper to make up images of everyday life or portraits of people. He sorts his 'shreds' into colours and then collages his pictures. Children can investigate and appraise a selection of his images and then create a self-portrait in collage form.
- Challenge the children to reuse the rubbish collected over a couple of lunch times to create a 'Junk Sculpture'. You may wish to give the children a theme, e.g. ocean animals, for their modelling.
- Using a common item such as lolly sticks, challenge the children to create a practical object e.g. pen pot or place mat.



Music

- Watch clips of a Junk Orchestra and discuss the instruments that the band has made. *How are the different sounds produced?* Link this to the Design and Technology activity where the children will be making their own junk musical instruments.
- Use a graphic score. Teach the children that their instrument will be represented by a picture. In small groups, give them the opportunity to compose a one minute piece to perform together.
- Present their piece to the class. Evaluate each performance. Remind the children to be kind, specific and constructive with feedback.





Reducing waste to save the planet

Do you know what happens to the items you recycle?

A staggering 12.7 million tonnes of plastic, from bottles to carrier bags, ends up in our oceans every year. It's estimated that by 2050, plastic in the ocean will outweigh fish. To tackle this plastic problem, the European Union has announced a plan to make sure that by 2030, every piece of plastic packaging produced across the continent is either recyclable or reusable. All of us have a part to play, too.



Plastic is having a terrible effect on the world's oceans.

What is recycling?

Recycling is when materials are transformed into other products to be used again. In the UK, it's thought that as much as 60% of the waste that ends up in the rubbish bin could be recycled. It's important to recycle because this reduces the need to make new products from scratch, which uses up more of the Earth's raw materials. It also reduces the amount of waste that is sent to landfill – a rubbish tip where waste is buried in the ground – and which takes a long time to break down naturally.



The Week Junior

The Week Junior magazine is delivered in a plastic sheet that can be recycled, although you'll need to check your local area's recycling rules first. Many larger supermarkets will also accept the plastic sheet. Make sure you recycle the magazine, too, once you've finished reading it, rather than throwing it away. Or give your old copies to a dentist or doctor's surgery.



How recycling works

What can be recycled?



Glass

Glass can be melted down and remoulded into new things, such as bottles. Glass products dumped in landfill will never break down, yet glass is 100% recyclable.



Metal

Similar to glass, metal is easily melted down. However, a lot of the metal objects we use today are made up of different types of metal, making it trickier to sort.



Paper

Paper is turned into new paper. This can only happen a few times before it loses its strength. Then it is only useful for making toilet paper or cardboard.



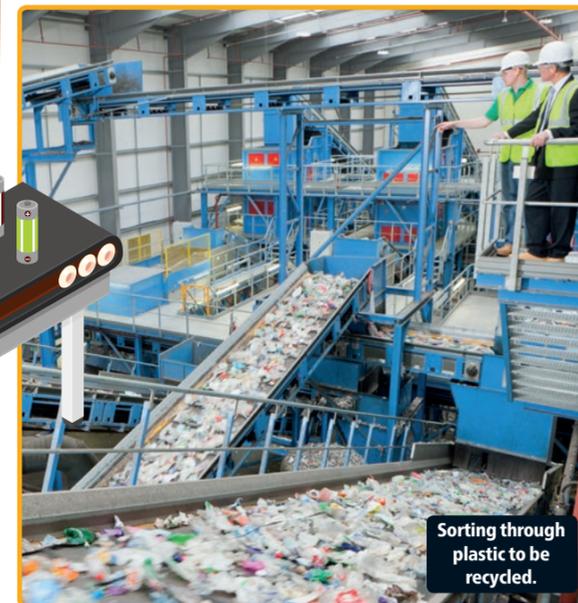
Plastic

Nowadays, almost all types of plastic can be recycled and transformed into new products, such as clothing, the stuffing used in sleeping bags and drainage pipes.

1 After sorting through their rubbish, many people recycle their waste by leaving it outside their homes to be collected, or by dropping it off at a recycling centre.



2 The waste is then taken to special facilities where the materials are sorted before being sent to manufacturers, who transform them into new products.



Sorting through plastic to be recycled.

3 Recycled materials can be turned into new products. For example, plastic bottles and containers are not only transformed into new bottles, but also garden furniture, playground equipment and recycling bins. They can even be turned into clothing – it takes roughly 10 plastic bottles to create enough fibres needed to make a T-shirt.



These guitars were made from skateboards.

Champion recyclers



When it comes to recycling, Germany is one of the top countries. Germans avoid sending more than half of the country's waste to landfill sites. One of their most successful schemes involves plastic bottles. When buying a drink in a single-use plastic bottle, customers pay an extra 22p as a deposit. Once the bottle is empty, it can be returned to a bottle bank or the place it was bought from, and the deposit is given back to the customer.

Tips on how to recycle



Before you begin, head to recyclenow.com to check what items can be recycled in your local area. Here are some top tips:

- Remember the three Rs – reduce, reuse, recycle. Are you able to reduce the amount of waste you produce? If not, try to come up with a way to reuse something. Finally, be sure to recycle the item.
- By flattening your cardboard, you'll be able to fit more into the recycling bin.
- Just celebrated a birthday? Along with the envelopes, you can recycle most cards and wrapping paper. Metallic or glittery paper can't be recycled.
- If you want to throw something away, like wearable clothes or a soap you don't like, check whether a charity shop will accept it.
- Recycle your robots! Lots of local recycling centres accept old electrical parts.