

## Facts and figures

### Paper

#### Figures

- 12.5 million tonnes used in the UK per year.
- Can be recycled up to 5 times before the fibres become too weak.
- Each family in the UK uses the equivalent of 6 trees per year.
- 30% of all household rubbish is paper.

#### Issues

- Recycling paper means we don't have the problems of disposal associated with landfill sites or incineration.
- Trees that are grown for paper do not provide natural environments for wildlife in the same way natural forests do.

#### Politics

- The government has set targets to reduce biodegradable waste such as paper and cardboard going to landfill by 25%. This means we must recycle or incinerate it.
- Recycling paper creates 3 times more jobs and saves more energy than incinerating.

### Metal

#### Figures

- There are 70 different types of metal, iron is the most widely used.
- On average 240 steel cans are used by every person in the UK per year.
- Aluminium in empty drinks cans is a valuable material and can be sold for 20-40p per kg.
- Recycling uses 25% less energy than producing new aluminium.

#### Issues

- Wrongly disposed of metals add to the mountain of rubbish being buried in landfill sites.
- Extracting pure metal uses huge amounts of energy and raw materials putting a strain on the Earth's resources and contributing to the causes of global warming.
- Some metals present an environmental threat due to their toxicity.

#### Politics

- 80% of old vehicles should be reused or recycled.
- 75% of waste electrical and electronic equipment should be recycled.

### Plastic

#### Figures

- Plastics make up 8-11% of UK waste per year.
- 60% of household plastic waste is from packaging.
- Each of us uses 90kg of plastic per year.

#### Issues

- Oil is one of the main raw materials used to make plastic.
- The UK is running out of space to build new landfill sites.
- Wrongly disposing of plastic can release highly toxic substances into the environment.
- Many animals die each year from either becoming tangled up in plastic wrappings or ingesting plastics. More than 60% of litter found on beaches is plastic.

#### Politics

- Government targets are to reduce the use of plastic packaging by 25% with an increase to 20% for recycling.
- 25 plastic bottles can be used to make one fleece.

Which materials are easiest to recycle?

What can you do with materials that do not rot down like glass?

Is it true that fleeces are made from plastic milk bottles?

Why is it better to reuse some materials rather than recycle them?

I think it would be easier to get people to use less rather than pay money on recycling costs

## Thinking frame

Name: .....

Issue chosen: .....

First thoughts... What is the current situation?	Most important points  <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>	Reasons why  <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>
Facts and figures I could use	What needs to be done?	How could we get people interested? Changes I would make ....
<b>Success Criteria</b>  I can identify the important reasons for recycling.  I can write down what I think about it.	I can discuss reasons why recycling is important but also difficult.  I can give reasons for my opinions.	I can collect information from different places and use these to make suggestions on why people should recycle more.

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## Teaching notes

### Main activity

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1. Children look at information sheets and in pairs find as many key facts as they can in 3 minutes.
2. Check fact finding by questioning. Children could put their answers onto mini whiteboards.

### Questions and answers

- |                                                                               |                                                                                                                                 |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| a. How many tonnes of paper are used per year in the UK? 12.5 million         | f. Only 50% of biodegradable waste can be put in landfill, true or false? False - 25% it then has to be recycled or incinerated |
| b. There are 200 different types of metal, true or false? False only 70 types | g. Recycling paper creates 3 times more jobs and saves more energy than incinerating, true or false? True                       |
| c. How does plastic cause wildlife deaths? Tangled or ingested                | h. How many plastic bottles does it take to make 1 fleece jacket? 25                                                            |
| d. What should be done with 80% of old vehicles? Reused or recycled           | i. What is the problem with using landfill to dispose of rubbish? The UK is running out of space.                               |
| e. How much can be charged for 1kg of aluminium? 20-40p                       |                                                                                                                                 |
3. Show children the first slide on the PowerPoint to choose an issue that they are going to research. They use information from the sheet and/or suggested websites to write a detailed plan on how they would address their chosen recycling issue.
  4. Discuss the success criteria and the thinking frame.
  5. Show the children the sample answer (on the second slide of the PowerPoint). Discuss whether it covers all the success criteria and how they could improve the answer.
  6. Groups feedback their plans to class. Children assess each other according to success criteria.

### Suggested plenary tasks

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- **Last man standing** - quick fire question round using mini whiteboards, last one to hold up their answer and/or wrong answers are out and sit down.
- **Interview a specialist** - nominate a student to be a recycling specialist to answer questions from the rest of class.

### Useful websites

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Links were available at time of publishing.

- [www.recycle-more.co.uk/nav/homepage.aspx](http://www.recycle-more.co.uk/nav/homepage.aspx)
- [www.theguardian.com/environment/recycling](http://www.theguardian.com/environment/recycling)
- [www.recyclenow.com](http://www.recyclenow.com)
- [www.recyclezone.org.uk](http://www.recyclezone.org.uk)