Lesson plan

We are currently producing more waste than ever before. It is important that we consider the materials we choose to make products from and what we will do with an object when we no longer have a use for it.

Lesson time 60 minutes

As children begin to explore the world around them, they should be able to distinguish between an object and the material it is made from, as well as describe some simple physical properties of everyday materials.

They should also be able to compare and group together materials on the basis of their simple physical properties. This lesson supports that learning, but also highlights why reducing the materials we use in the first place by reusing and recycling objects can help to improve our environment.

Resources you will need

- **The key stage one lesson one presentation**
- **For activity one**
  - A variety of items placed around the classroom – they must include at least one item made from each of the following materials: metal, paper, cardboard, plastic, wood and fabric
  - Six trays, hoops or boxes labelled wood, metal, plastic, cardboard, fabric and paper (printable labels included at the end of this document)
- **For activity four**
  - Print and cut out the objects at the end of this document

provided by suez

Lesson one

SLIDE 2

Learning objective

Ask what 'properties of materials' means and what are the categories?

Explain to the class that today we are going to be learning about different types of materials, the objects they are used for and ways to describe materials.

Explain the difference between material and fabric.

Explain that you are going to set them a series of activities to learn about how science is used to help sort materials.

SLIDE 3

Activity one

Set out six trays, hoops or boxes labelled wood, metal, plastic, cardboard, fabric and paper. You can use the labels included at the end of this document.

Ask the class to imagine that they are explorers and you would like them to look around the classroom and collect an object and place it in the container they think the object is made from.

Gather the class around the containers and discuss words they might use to describe the objects – what do they feel and look like?

Write them up on the board or on 'post-it' notes to use later in activity four.

Work your way through the following slides encouraging the class to think of objects they might find at home which are made from the different materials.

SLIDE 4-5 **What objects are made from metal?**

SLIDE 6-7 **Why is metal a good material to use?** What would happen if I ate my hot soup with a spoon made from chocolate? What properties make it easy for us to differentiate metal from other materials?

SLIDE 8-9 **What objects are made from wood?**

SLIDE 10-11 **Why is wood a good material to use?** What would happen if my door was made of paper? What properties make it easy for us to differentiate wood from other materials?

SLIDE 12-13 **What objects are made from plastic?**

SLIDE 14-15 **Why is plastic a good material to use?** Could I make my drinks bottle out of cardboard? What properties make it easy for us to differentiate plastic from other materials?

SLIDE 16-17 **What objects are made from fabric?**

SLIDE 18-19 **Why is fabric a good material to use?** Would I be comfortable in a jumper made of metal? What properties make it easy for us to differentiate fabric from other materials?

SLIDE 20-21 **What objects are made from cardboard?**

SLIDE 22-23 **Why is cardboard a good material to use?** Could I send my parcel in a box made of glass? What properties make it easy for us to differentiate cardboard from other materials?

SLIDE 24-25 **What objects are made from paper?**

SLIDE 26-27 **Why is paper a good material to use?** Could I wrap a present in fabric? What properties make it easy for us to differentiate paper from other materials?

SLIDE 28-29 **What objects are made from glass?**

SLIDE 30-31 **Why is glass a good material to use?** What would it be like in this classroom if the windows were all made from wood? What properties make it easy for us to differentiate glass from other materials?

SLIDE 32-35 ## Activity two

Using the adjectives on the bottom of the screen ask the class to work in pairs to identify the missing words.

SLIDE 36-37 ## Activity three

Using the concept of groups ask the class if they can work out how they could make two material groups from the objects shown.

SLIDE 38-39 Now ask the class to think of an adjective they could use to group the items. Give an example referring back to the items they collected at the beginning of the lesson.

Emphasise that there are many different ways of grouping – colour, shape, material, size etc.

SLIDE 40 ## Activity four

Using the cut out pictures of objects, ask each child to choose three and stick them in their book.

Ask them to label each object with the material it is made from and two adjectives to describe the material. Children can use the words collected in activity one as support.

Extended learning opportunities

Reduce, reuse, recycle – are the objects made from precious materials?

Suggested reading:

- ***The Three Little Pigs*** – helps children to consider the materials used and whether they are the most appropriate
- **Acorn: Exploring materials** – a series of books covering a range of everyday materials
- ***Michael Recycle*** by Ellie Bethel

Fabric

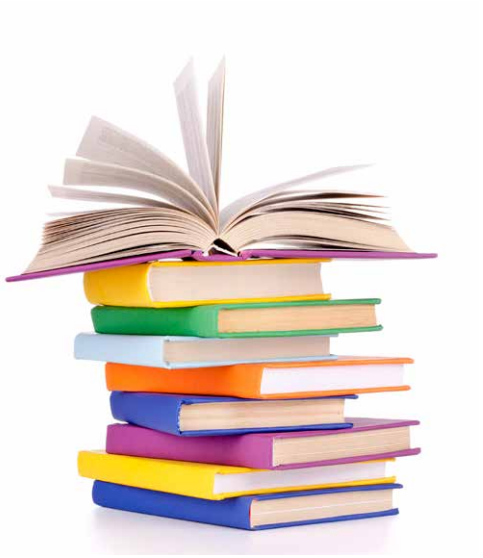
Plastic

Paper

Wood

Metal

Cardboard




Whole Grain
Oat
Flakes
Source of Fiber
Organic