

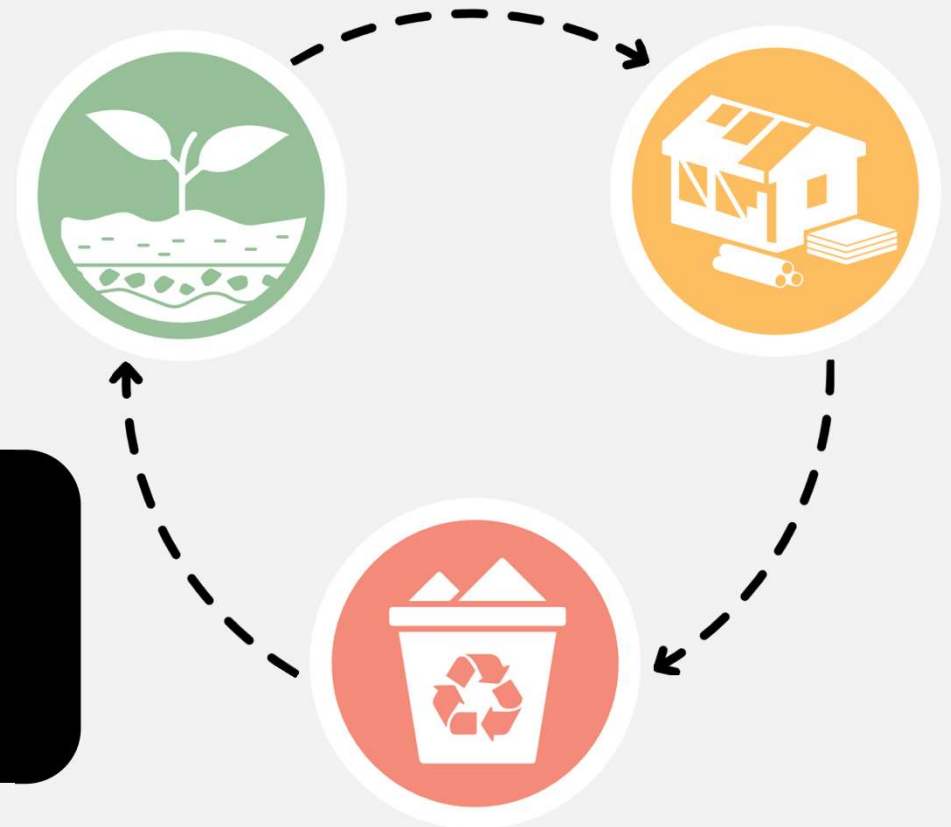


BUILT ENVIRONMENT TRUST
SUPPORTS PEOPLE TO
BUILD A BETTER WORLD

Building a New World Material Life Cycle

Sustainability | Learning Points

- Recycling
- Experimenting
- Materials
- Design
- Environment
- Architecture



What is 'Sustainability?'

All life on Earth depends on the environment.

The natural environment provides all living things with resources like food, water, plants, raw materials and minerals.



Sustainability is the idea that humans must interact with the natural environment in a way that ensures there will be enough resources left for future living things.

WASTE is a big problem in the UK

Waste means natural resources continues to be used to make new materials.

Waste is also put in 'landfill' which covers huge areas around the world and is damaging to the natural environment.

In the UK we make around **222 million tonnes of waste each year.**

(This is about the same weight as 1 million aeroplanes!)



THINK!

What do you throw in the bin at your school / where you live?

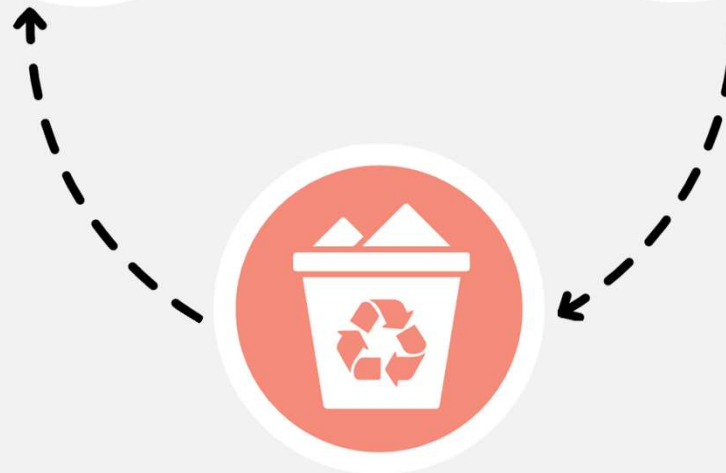


Learning about the Material Life Cycle can help to reduce waste!

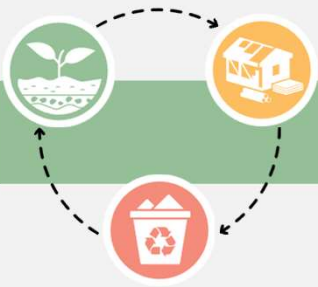
Where does it
come from?



How can it
be used?



What can it
become after use?



Where does it come from?

Everything around us starts as a 'raw material'.
Raw materials can come from different places:



from

The Ground



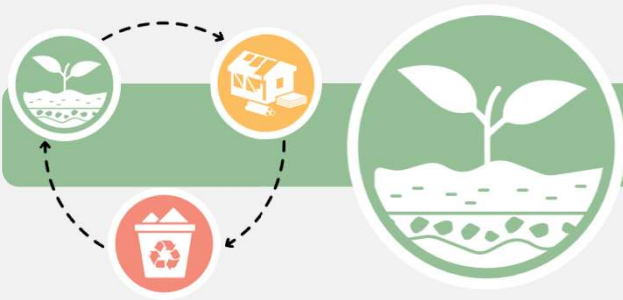
from

Living Things



from

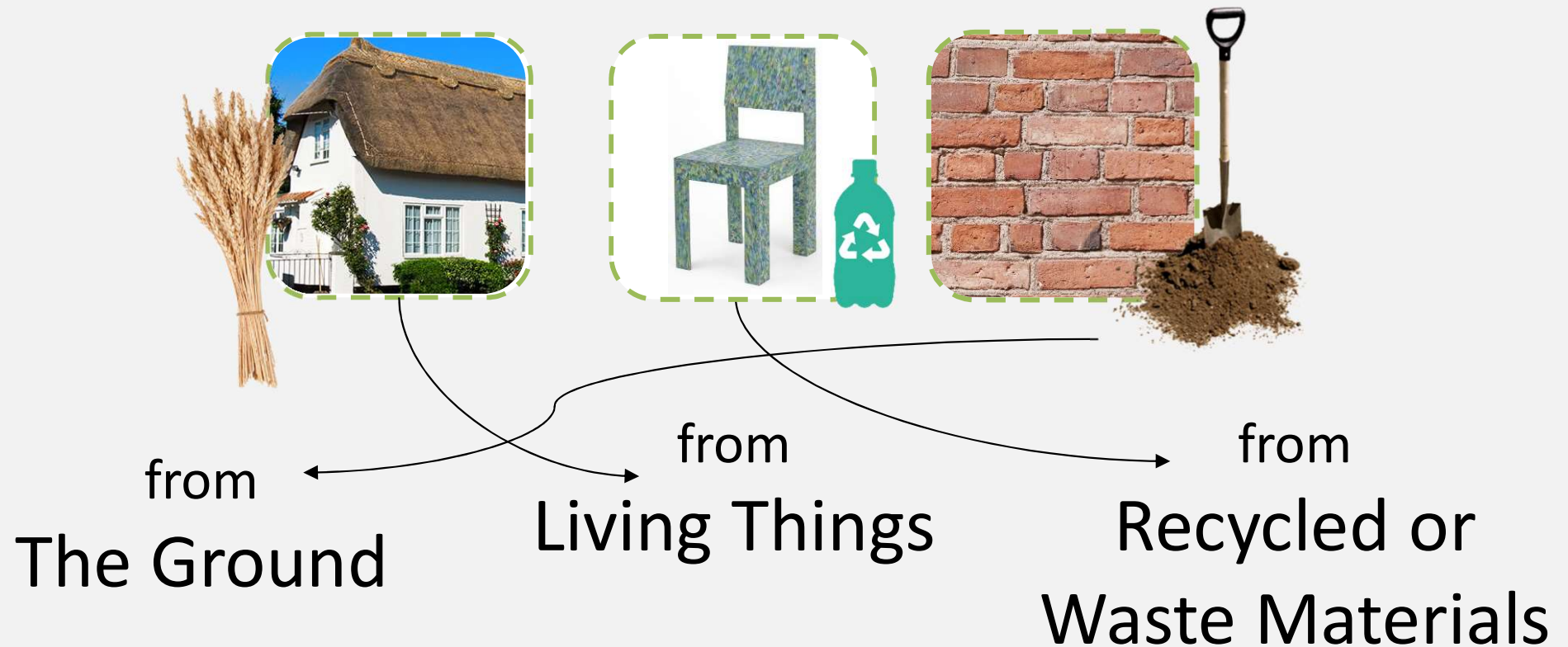
Recycled or
Waste Materials



Where does it come from?

Your Task...

Using your Material Match-Maker activity sheet
can you match the materials and where they come from?





How can it be used?

We can reduce waste by using materials more efficiently.
For this, we must understand 'material properties'

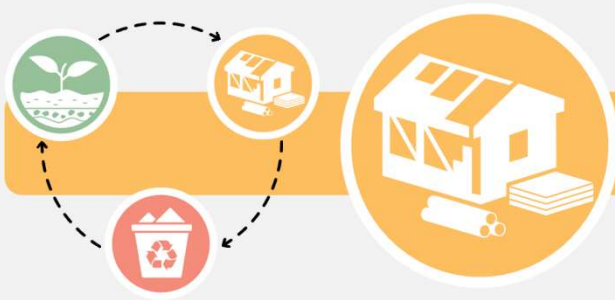


THINK!

Can you think of other examples of material properties by using all your **senses**?

Material properties are the things that we can measure, see or feel about a material.

Different materials are good for different jobs based on their properties.



How can it be used?

Your Task...

STEP 1

Use your Material Bingo sheet to find as many materials around your school/classroom/house as you can!

STEP 2

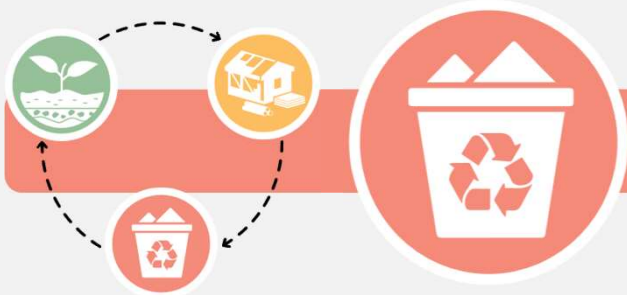
Write down what has been made using each material.

STEP 3

Explain **why** that material is used.

(Hint: think about the properties of that material)





What can it become next?

Recycling is an important part of reducing waste.

When something is **recycled** it is **reused** or turned into something else.

Materials such as **glass**, **metal** and **paper** are quite easy to recycle. Certain types of plastic can be recycled too.



DID YOU KNOW?

Plastic can take over 500 years to break down if not recycled



What can it become next?

Creative examples of recycling materials include:

Building

This building is made from recycled glass bottles!



Clothes

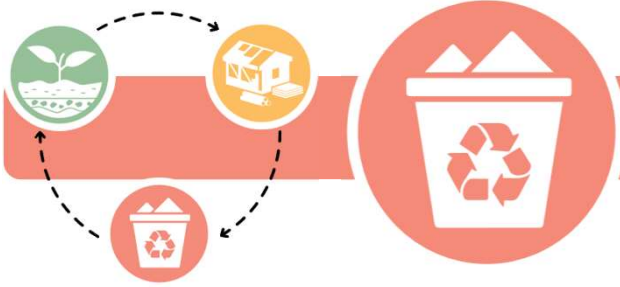
These shoes are made from recycled plastic pulled from the ocean, and rubber from recycled car tyres!



Furniture

These chairs are made from recycled metal street signs!





What can it become next?

Buildings made from recycled materials:

Recycled train carriage



Window frames



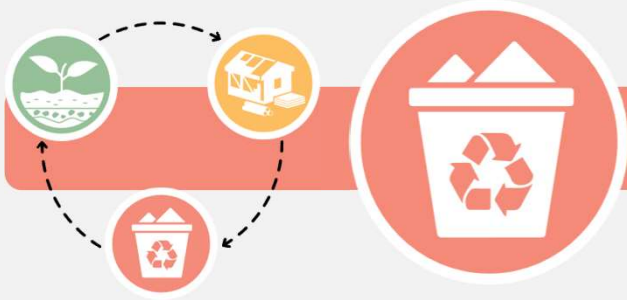
Recycled car tyres



Mud bricks



Colourful recycled plastic



What can it become next?

Your Task...

Using your Creative House Building activity sheet, can you think of exciting ways to **recycle** materials to build a new house to help reduce waste?

STEP 1

Pick a recycled material (e.g. car tyres, plastic bottles etc.) and list the properties that make it good for building.

STEP 2

Draw, a new house made from these materials.