

Raw and Synthetic Materials

YEAR THREE

AUTUMN 2



LESSON TWO

What is a synthetic material?



Do Now – Retrieval practice

What is a material? A material is a _____ s _____ that has a
n _____.

What is a raw material? A raw material is a material that is found in
n _____.

Where are the two places that raw materials can come from? Some raw
materials come from u _____ the g _____ and some raw materials from
l _____ t _____.

Are the following raw materials from 'under the ground' or from 'a living thing'?

Wood is from _____

Cotton is from _____

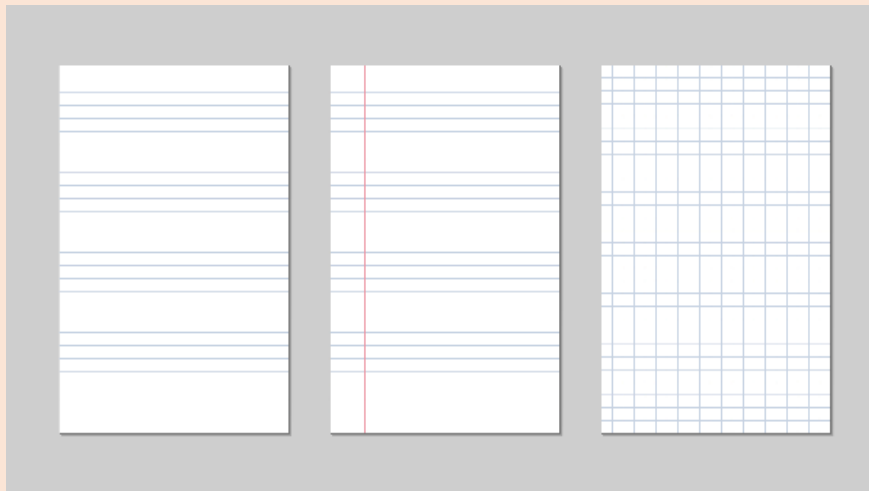
Copper and Iron are from _____

Coal is from _____

From last half term:

What do you need to remember when drawing a scientific table?

Synthetic materials





Read the following passage about synthetic materials:

As we learned in the last lesson, a material is any substance that has a name and a raw material is a material that is found in nature.

A **synthetic** materials is one that has been made by a human. When this happens, a raw material is changed to make them into a new material. Some **examples** of synthetic materials are plastic, paper, glass and brick.





What is a synthetic material?

A synthetic material is made from a
r_____ material that has been
ch_____.

**What are some examples of
synthetic materials?** Some
examples of synthetic materials are
p_____, p_____,
g_____ and b_____.



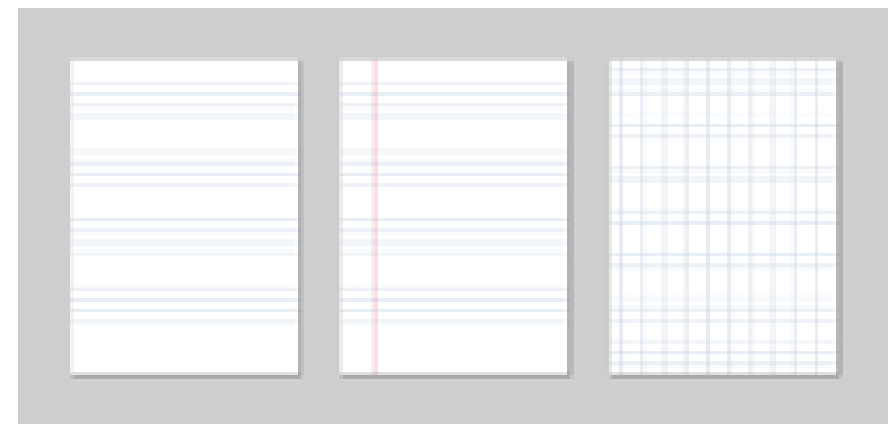
Continue reading about synthetic materials

Plastic is a synthetic material that can be formed into almost any shape. Most plastics are strong, long-lasting, and lightweight.

It is made from heating chemicals that come from oil, natural gas or coal.

Paper is a synthetic material that comes from trees. Wood can be turned to a paper 'pulp' using chemicals. |

This pulp is made into mats of wet paper which is squeezed out and dried to make paper.



Glass is made from pure silica, or sand. The sand is heated to a very high temperature to make hot, liquid glass.

The melted glass can be moulded into shapes or rolled into sheets and allowed to harden.



Bricks are mainly made of clay. Clay is put into moulds or cut with wires, and then baked in an oven. The colour of a brick depends on the clay from which it was made.





Match up each synthetic material with the raw material that it is made from:

Plastic

Sand

Paper

Clay

Glass

Wood

Brick

Oil, natural gas or coal



Add the name of the correct synthetic material to describe how it is made:

_____ is made by shaping clay in moulds and then baking it in an oven.

_____ is made by making pulp from wood which is made into a mat and dried.

_____ is made from heating chemicals that come from oil, natural gas or coal.

_____ is made from heating sand to very high temperature and then shaping it as it cools.



Look at the objects that your teacher shows you. Write down what the synthetic material is, which raw material it is made from and why it is helpful.

Name of the material	Where it comes from	What properties make it helpful?
A plastic bag		
Cardboard box		
Glass ornament		



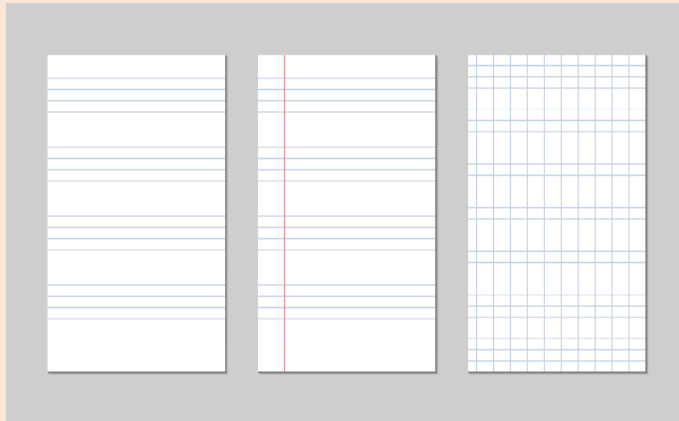
Sort the following objects into 'synthetic' or 'raw' materials:

coal | wood | brick | oil | plastic | cotton | paper | wool

Synthetic material	Raw material
<ul style="list-style-type: none">• _____• _____• _____• _____	<ul style="list-style-type: none">• _____• _____• _____• _____



Why do you think humans started making synthetic materials instead of just using raw materials?





Return to page 3 to complete the learning review.

Answer the following question in a couple of sentences:

What is a synthetic material?

Raw and Synthetic Materials

YEAR THREE

AUTUMN 2

