

Solid materials



All of the above are solid materials and they all have different textures and properties.

Raw & manufactured materials

Raw materials, such as sand and clay, are natural materials that can be used as they are to make other solid materials.



Clay being shaped into a vase to hold water.

Raw materials can be changed into other materials that we call manufactured materials.



Glass



paper

Other raw materials:



Sand



water



wood



coal



oil

Manufactured objects from natural, raw materials

Sand comes from rocks that have been weathered and is used to make a liquid that can be shaped into different glass objects.

Other objects made from glass by people:



shutterstock.com - 1508969219



All of these have been made from sand by people who are creative and able to make things from the raw material



Manufactured objects from natural, raw materials

Ceramic objects:

Wet clay is soft and malleable (can be shaped without breaking) and can make many ceramic objects, much harder than clay and yet they are brittle and can be broken if dropped.

Coal & oil are the raw materials for plastics from which many objects are manufactured:



Both coal & oil were formed from trees, plants, shells and other subjects millions of years ago when much heat and pressure were applied to these objects.



Manufactured objects from natural, raw materials

Wool and animal skins can make up jerseys & jackets.



Many items are made from wood and fiber:



Solid wood products

Wood fiber products



Manufactured objects from natural, raw materials

Crude oil is a brown liquid found below the Earth's surface.

It is brought to the surface by wells and oil rigs at sea.

Different plastics are made from oil and coal and are used to make many products.

Nylon and polyester are made from crude oil & are made into fibers that make yarn & fabrics.



Plastics are very durable and take a long time to degrade or rot. **This causes litter problems, pollution & lands up in the sea, killing fish etc.**

Manufactured objects from natural, raw materials

Using a X, indicate what materials the following objects are made from:

Objects	Sand	Clay	Oil or Coal	Wood
1. Plastic spoon				
2. Chair				
3. Glass vase				
4. Nylon nightdress				
5. Ceramic tile				
6. Plastic ball				

Find out from what and how paper is made.

Manufactured objects from natural, raw materials

Summary

- Sand is used to make glass
- Clay is used to make ceramics
- Coal & oil are used to make plastics, paint & fabrics
- Wood and fiber are used to make paper, cardboard & chairs
- Animal wool and hides are used to make fabrics and leather.

