

Read About The Classification of Materials

CLASSIFICATION OF MATERIALS DEFINITION

Classify means to group objects based on shared qualities or properties. Scientists and engineers often put objects into groups that have the same property, such as color, hardness or texture. Knowing properties is important when you make things.

To better understand how classification works...

LET'S BREAK IT DOWN!

We can classify materials by color.

When we classify objects based on color we put all the objects with the same color together in one group. We can do this with clothes, paper, candy and many other things.



We can classify materials by texture.

Texture describes how smooth or how rough something is. A book is smooth, while a brick is rough.

Texture is important when designing things.

A slide needs to be smooth to make it easy to slide down. Can you imagine what a rough slide would feel like?



We can classify materials by hardness.

Some things like wood are hard. Some things like blankets are soft.

Hardness is important when choosing materials that need to be strong.

Building materials need to be hard. They need to be hard in order to build a strong and sturdy house or building.



CLASSIFICATION OF MATERIALS VOCABULARY

Classify

To group objects based on shared qualities or properties.

Material

Any solids, liquids or gas.

Property

A quality of something.

Texture

How rough or smooth something is.

Rough

Having an uneven surface, such as sandpaper.

Smooth

Having a very flat surface, such as glass.

CLASSIFICATION OF MATERIALS QUESTIONS

What are some different properties by which you could classify material?

Some properties you can classify materials by include color, texture or hardness.

What are some different ways you can classify your clothes?

You can classify your clothes by color, patterns or texture.

What are some different textures that you can classify materials by?

You can classify materials by the textures of smooth or rough.

What types of things would be better with a smooth texture?

Some things that are better with a smooth texture are a slide, a bowling lane or the tile on the floor.

What kinds of things would be more useful with a hard surface rather than a soft surface?

Some things that are more useful with a hard surface include a table, a helmet or a bowling ball.

Why would it not be a good idea to make a hammer out of clay?

It wouldn't be hard enough to push a nail through wood. This is why hammers are made of strong materials like metal.
