**Name:** Mohammad,Muhannad

 Raad,Saif, Alazar **Report:** Properties of materials

You will need

Half-filled beaker with hot water.

Samples of everyday materials, for example clay, cotton, rubber, glass, plastic, wood, copper, wool, steel.

Procedure

 Test the materials for the properties below. Write your results in your table.

• ***Is it waterproof?***
Find out by placing one drip of water on the material. If the water is not absorbed, the material is waterproof.

• ***Does it conduct heat?***Do this test only on waterproof materials.
Find out by placing the material in hot water, with part of it above the water. After a few minutes, feel the end that is above the water. If this end feels hot, the material is a good conductor of heat.

• ***Is it flexible or stiff?***
Find out by trying to bend it.

• ***Is it strong?***Find out by pulling and pressing it. If it does not change, it is relatively strong.

• ***Is it transparent or opaque?***
A material is transparent if you can see through it, and opaque if you cannot.

• ***Is the material brittle?***Do you think it will break if you drop it? If so, the material is brittle.

• ***Is the material hard or soft?***If you can scratch the material with a nail, it is relatively soft.

**Use the table below to record your results.**

|  |  |  |
| --- | --- | --- |
| **Material** | **Properties of material** | **One use of the material** |
| Clay  | BrittleOpaqueHeat conductorStrongStiff HardWaterproof | Statues |
| Plastic | FlexibleOpaque Brittle SoftWaterproofNot Strong | PlatesToys |
| Wood | StrongStiffOpaqueBrittleHardNot waterproofNot Flexible | PaperFurniture |
| Steel | WaterproofHeat conductorStiffStrongOpaqueBrittleHard | Construction |
| Cotton | FlexibleStrongOpaqueHardNot brittleNot Waterproof | Clothes |
| Wool | FlexibleStrongOpaqueHardNot waterproofNot Brittle | Clothes |
| Rubber | WaterproofFlexibleOpaqueFlexibleSoft/hard Does not conduct heatNot Strong Not Brittle | Car tiresSurgical gloves |
| Glass | WaterproofConducts heatStrongTransparentBrittleHardNot Flexible | windows |
| Copper | Waterproof Brittle Strong Heat Conductor Stiff Hard Opaque | Lightning rods |