



**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.



The National  
Orthodox School  
Shmaisani

- ***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.**

<b>Material</b>	<b>Properties of material</b>	<b>One use of the material</b>
Clay	Brittle Opaque Heat conductor Strong Stiff Hard Waterproof	Statues
Plastic	Flexible Opaque Brittle Soft Waterproof Not Strong	Plates Toys
Wood	Strong Stiff Opaque Brittle Hard Not waterproof Not Flexible	Paper Furniture
Steel	Waterproof Heat conductor Stiff Strong Opaque Brittle	Construction



The National  
Orthodox School  
Shmaisani

	Hard	
Cotton	Flexible Strong Opaque Hard Not brittle Not Waterproof	Clothes
Wool	Flexible Strong Opaque Hard Not waterproof Not Brittle	Clothes
Rubber	Waterproof Flexible Opaque Flexible Soft/hard Does not conduct heat Not Strong Not Brittle	Car tires Surgical gloves
Glass	Waterproof Conducts heat Strong Transparent Brittle Hard Not Flexible	windows
Copper	Waterproof Brittle Strong Heat	Lightning rods



The National  
Orthodox School  
Shmaisani

	Conductor Stiff Hard Opaque	
--	--------------------------------------	--