

**Conduction**

Which materials conducted heat best?  
(best conductor will have butter melt fastest).  
Rank from best to worst.

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

How long did it take for the best conductor to totally melt the butter?

\_\_\_\_\_

**Insulator**

What materials insulated best? (best insulator stops ice from melting). Rank from best to worst.

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_

How long did it take for the ice to melt on the worst insulator? (making it the best conductor!)

\_\_\_\_\_

**Hydro Properties**

Which materials absorbed water and which ones did not?

Absorbed

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Did not Absorb (Hydrophobic)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Transparency**

Put the materials in their relevant categories.

Transparent (lets all light through)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Translucent (lets some through)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Opaque (lets none through)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Protection**

What materials protected the egg and what ones did not?

Protected

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Did not protect

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Can you think of ways we could make the materials that did not protect better at protecting?

\_\_\_\_\_

**Flexibility**

What materials were flexible and what ones were not (rigid)?

Flexible

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Rigid

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Can you think of things that may impact how flexible or rigid something is?  
(Hint: some metals become flexible if we hold them over a fire)

\_\_\_\_\_