

Name: _____

Date: _____

Melting Points

SCIENCE FACT: Materials not only change in volume and density when heated or cooled, they also change from one state to another. Melting point is the temperature at which a solid changes to a liquid. Different solids may have widely different melting points. Some materials, such as wax and glass do not melt at a definite temperature but gradually become softer and softer until they finally change to a liquid. The molecular theory is used to explain how the melting point of materials occurs. When materials are heated, the molecules vibrate faster and are not held together as firmly as in a solid. If the solid receives enough heat it melts.



Refer to the table to answer the questions below.

1. Which substance has the lowest melting point?

2. Which substance has the highest melting point?

3. Which melts sooner, silver or gold?

4. Would brass, copper, or tin make the best electric wire?

Why?

5. Which substance becomes a liquid when its temperature goes above 0° C?

6. How many degrees difference is there between the melting points of iron and copper?

7. Is the melting point of sodium higher or lower than the melting point of calcium?

8. Which two substances would remain in their melted state at a normal room temperature?

Melting Points of Some Substances

<u>Substance</u>	<u>Degrees Celsius</u>
Aluminum	660.2
Brass	900-1000
Calcium	848
Copper	1063
Gold	1063
Ice	0
Iron	1535
Lead	327.5
Mercury	-38.87
Nickel	1453
Radium	700
Silver	960.8
Sodium	87.81
Tin	231.89
Tungsten	3410
Uranium	1132.3