

# Science 9 homework

Pg. 164 #1, 3, 4, 6, 7, 8, 9, 13

1. gas + liquid.

gasses: if not in a container, spread out indefinitely

liquid: takes shape of container

3. No! The origin does NOT make a difference to its properties. Think of water... ~~that~~ It is also a pure substance. Water is water is water. All water molecules are the same. That is the same for oxygen and other pure substances (elements and compounds)

4. a) melting point = physical property  
b) yellow (color) = physical property  
c) reacts with hydrogen = chemical property  
d) density = physical property  
e) combines with oxygen = chemical property

both c and e describe sulfur combining (i.e. taking part in a chemical reaction) with some other element.

6. 18K - as you go up in karat, you are getting denser gold. That means more mass for the volume of gold.

+ plastic

7. Wooden handles! It is better to have pots with wooden handles (or plastic handles) because the heat is not transferred to the handles too easily. If they were metal, then the metal handles may get very hot and burn someone.

8. Zinc
- a) melting point = physical property
  - b) grey (color) = physical
  - c) corrosion = chemical property  
→ describing a reaction with oxygen
  - d) conductivity = physical property
  - e) density = physical property

- 9.
- a) hardness (physical)
  - b) solubility → trying to figure out how much can dissolve (physical)
  - c) malleability (physical)
  - d) flammability (chemical)

### 13. Physical property

X-rays help us enhance our senses.

For example, x-rays can help us create pictures and images of what is happening in our bodies. As a result, we are able to see what we could not before.

They do not describe the behavior of how a substance changes into a new substance.