

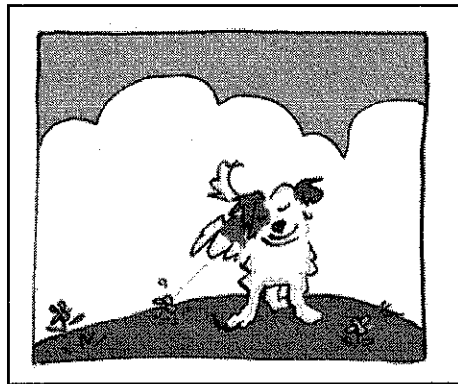
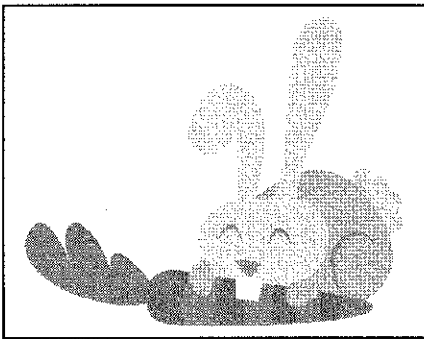
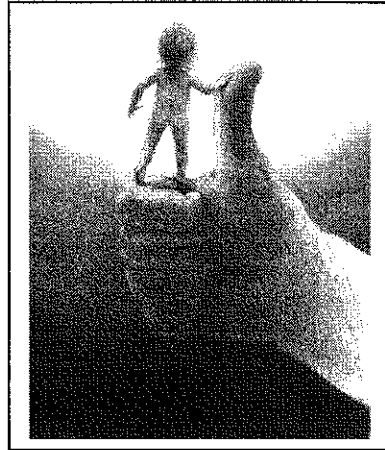
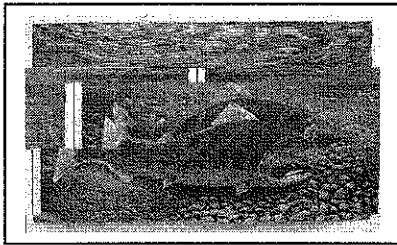
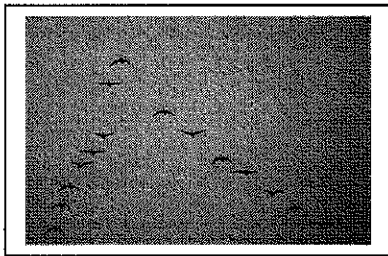
# Science 8 – Year End Review

## Cells and Systems

Name: \_\_\_\_\_

1. What are the five characteristics of living organisms?

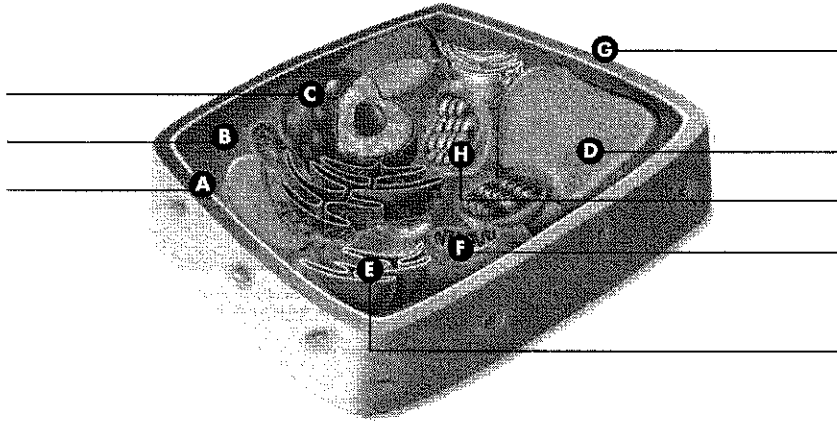
2. For each image, identify which characteristic is shown:



3. Choose one living organism and explain how it fits the five characteristics.

4. Explain the three points of cell theory.

5. Label the following organelles in the diagram:



6. What is the function of the following organelles?

Nucleus:

Ribosomes:

ER:

Cell membrane:

Cell wall:

Choloroplast:

Vacuole:

7. For each description identify if it fits plant cells or animal cells:

Many small vacuoles \_\_\_\_\_

Cell wall \_\_\_\_\_

No chloroplasts \_\_\_\_\_

8. Identify each body system:

Moves nutrients and oxygen around the body \_\_\_\_\_

Includes the skin, hair and nails \_\_\_\_\_

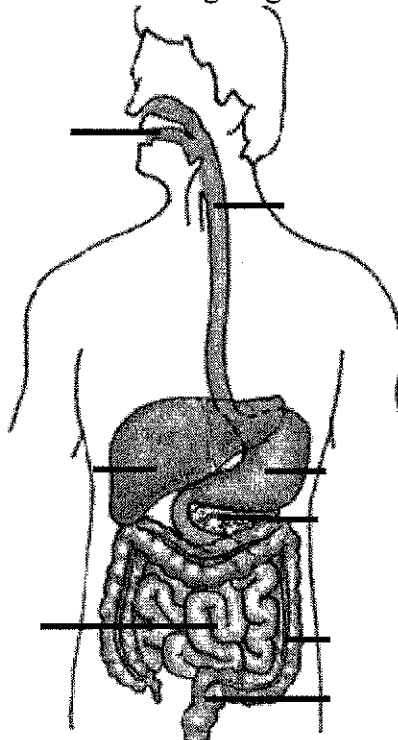
Takes in oxygen and removes carbon dioxide \_\_\_\_\_

Fights infections \_\_\_\_\_

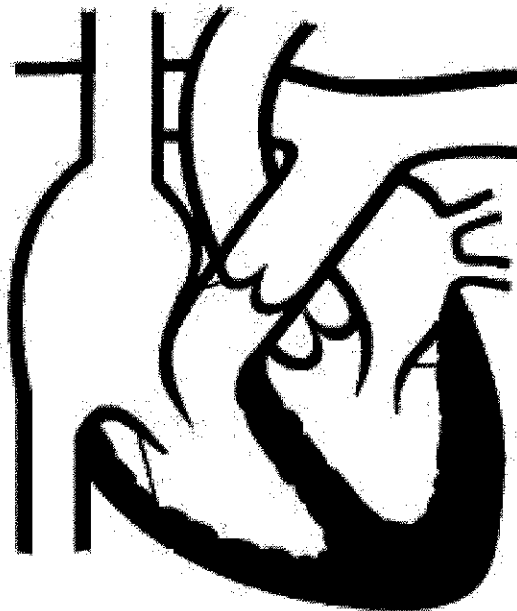
Moves the body \_\_\_\_\_

Made up of bones that support the body \_\_\_\_\_

9. Identify the stages of digestion on the following diagram and the organs involved in each stage:



10. Label the chambers of the heart and draw the flow of blood through the heart:



11. What is the roles of each of the following components of blood:

Plasma

Red blood cells

White blood cells

Platelets

# Science 8 – Year End Review

## Density and Layering

Name: \_\_\_\_\_

1. Highlight the more dense substance in each pair.

Glycerol 1.26g/ml  
Oak 0.7g/cm<sup>3</sup>

Air 0.0013g/ml  
Carbon Dioxide 0.002g/ml

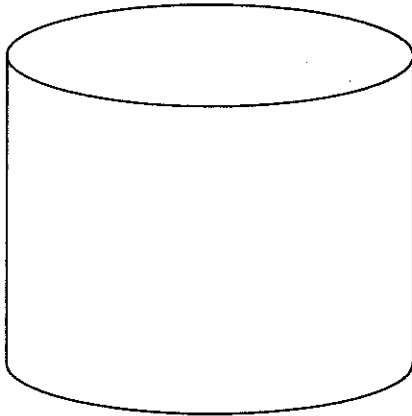
Ethyl Alcohol 0.79g/ml  
Water 1.0g/ml

Nickel 8.9g/cm<sup>3</sup>  
Aluminum 2.7g/cm<sup>3</sup>

2. Fill in the picture to show how the following liquids would layer in the beaker.

Water 1.0 g/ml  
Machine Oil 0.9 g/ml

Corn Syrup 1.4 g/ml  
Glycerol 1.26 g/ml



3. For each of the following solids, list whether they would float or sink in water.

Solids with a density greater than 1 g/cm<sup>3</sup> will sink in water; those with a density less than 1 g/cm<sup>3</sup> will float.

Cork 0.24 g/cm<sup>3</sup> Float or Sink

Gold 19.32 g/cm<sup>3</sup> Float or Sink

Iron 7.87 g/cm<sup>3</sup> Float or Sink



# Science 8 – Year End Review

## Forces and Pressure

Name: \_\_\_\_\_

1. What are the two groups of forces?

Explain each of the forces listed:

2. Gravitational

3. Magnetic

4. Electrostatic

5. Friction

6. What is pressure?

7. Why can gases be compressed but not liquids or solids?

Calculate the pressure in the following situations:

8. An iron weighing 120N sitting on a board that is 0.2m by 0.2m.

9. A person weighing 750N standing on a chair that is 0.5m by 0.5m.





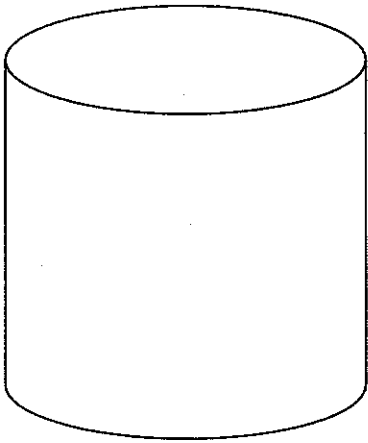
# Science 8 – Year End Review

## Kinetic Molecular Theory

Name: \_\_\_\_\_

All matter is made of \_\_\_\_\_ that are always \_\_\_\_\_.

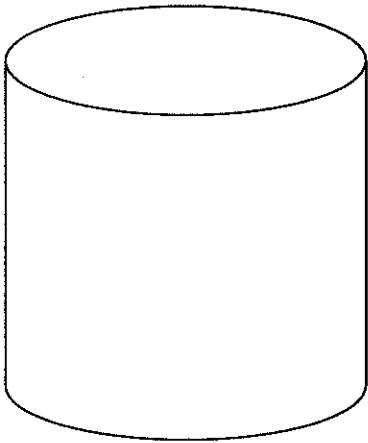
Solid



Movement:

Spacing:

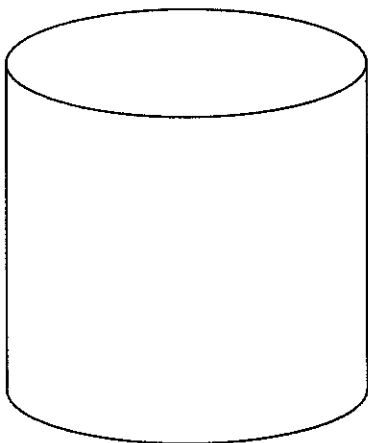
Liquid



Movement:

Spacing:

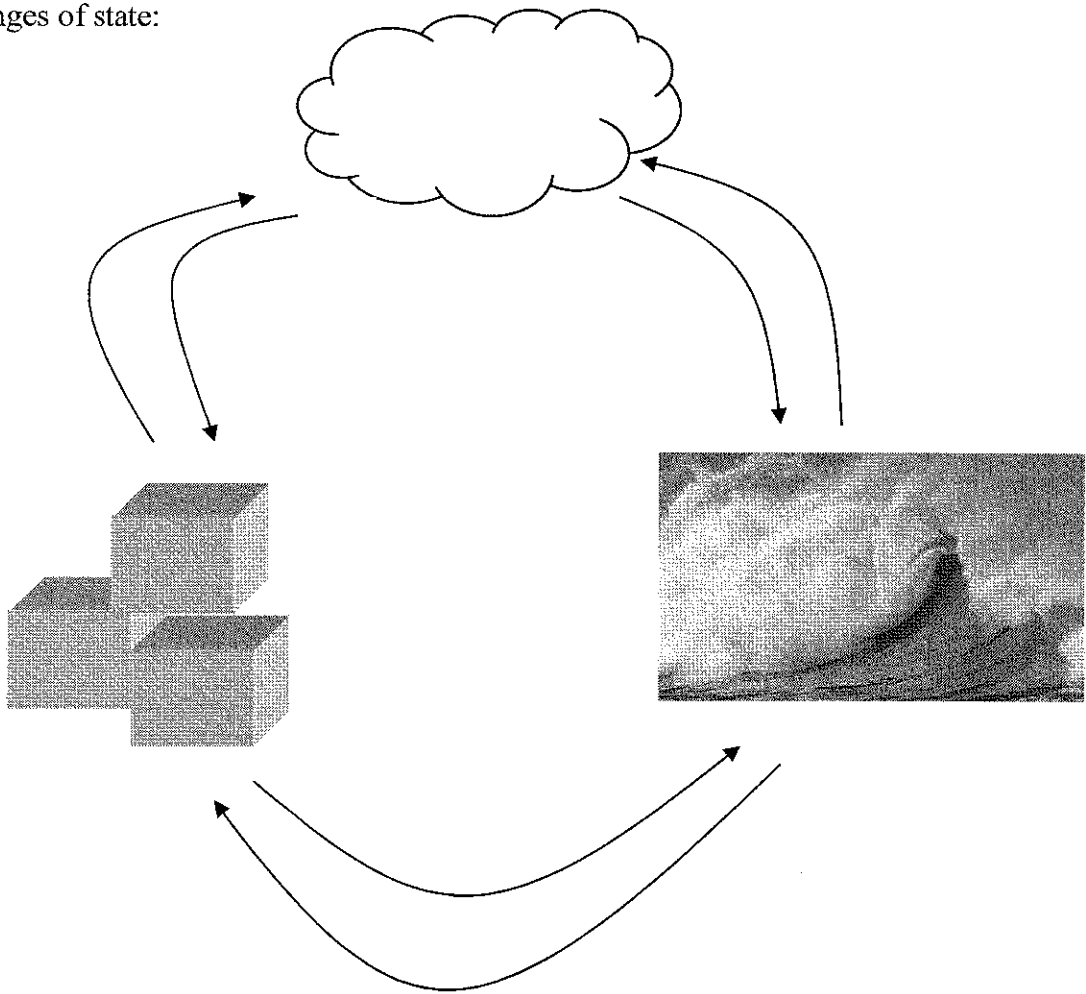
Gas



Movement:

Spacing:

Changes of state:



When heat is added to matter it \_\_\_\_\_  
because:

When heat is taken away from matter it \_\_\_\_\_  
because: