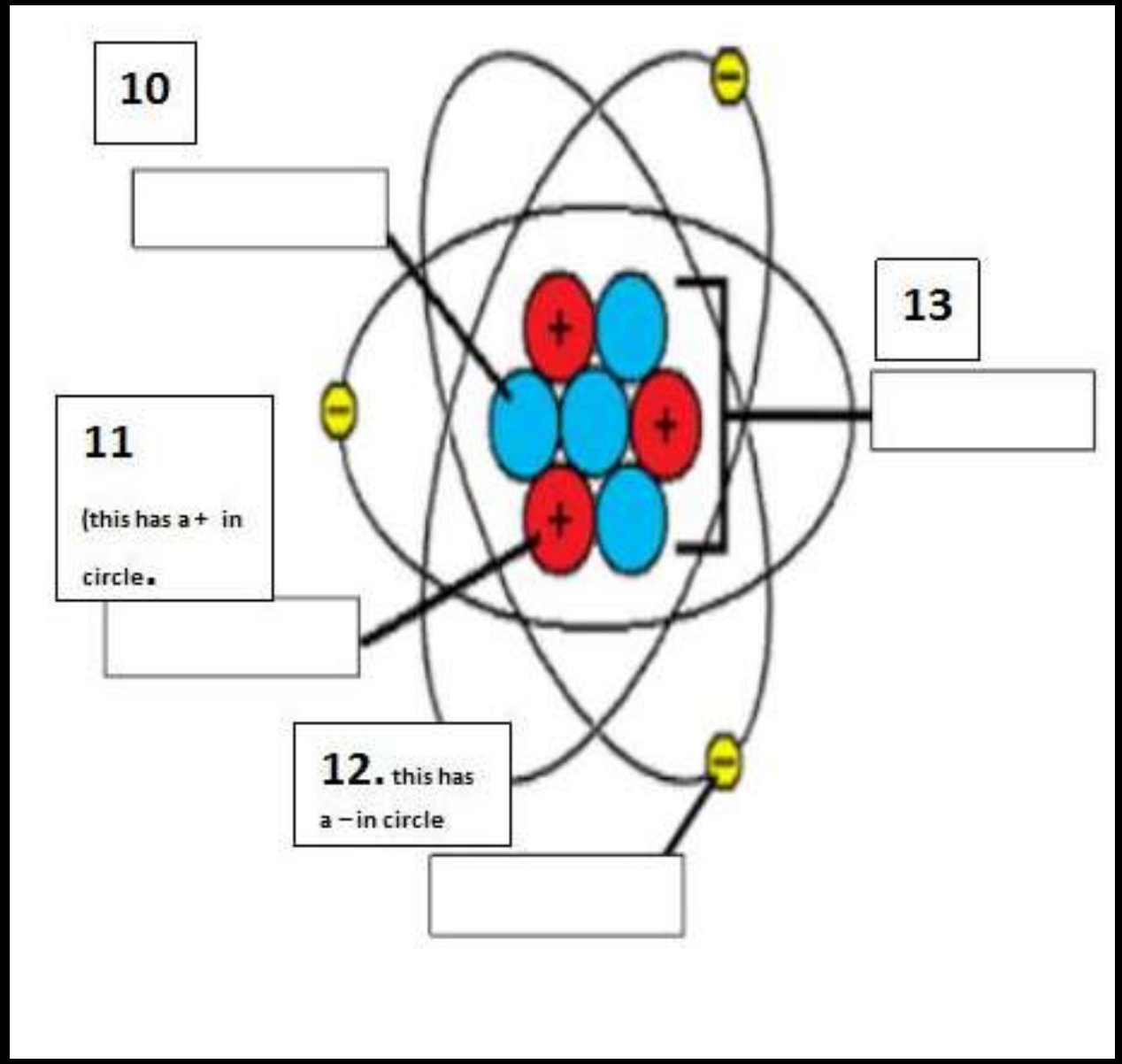
CHEMISTRY REVIEW

Griffith – answers start at slide #12

USE THE WORDS FROM MATCHING I GAVE YOU BEFORE.

1_____ Atoms	A. Anything that takes up space and has mass.
2_____Sub-Atomic Particles	B. Shows movement over time
3_____ Elements	C. the microscopic building blocks that have chemical properties of all living and nonliving things.
4_____Matter	D. protons, neutrons, and electrons
5_____Mass	E. Any pure substance that cannot be broken down. There are 100 of these known to man.
6_____Motion	F. The amount of matter an object has inside it.
7._____ Volume	G. the amount of matter inside a specific amount of space.
8. _____Density	H. The amount of space an object takes up.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12. this has
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- What are the building blocks of all matter?
- What makes up the mass of an atom? (hint its what makes it unique)
- Can you see atoms with your naked eye?
- What are the particles of atoms?
- What makes an atom unique? What makes an oxygen atom different from a hydrogen atom?

- How do you find volume of an object?
- What is the formula for volume?
- How do you find the mass of an object?
- What is the formula for density?

- What is the density of something that has L=5cm W= 2cm H=2cm and mass of 45g?
- What is the density of something that has mass of 3, 465g and a volume of 893cm3?
- What is the density of something that has the mass of 4, 590 g and when dropped in water the graduated cylinder rises from 28mL to 47mL?
- What is the density of 894g and volume of 93mL?

WHICH LAYERS HAVE ARE LESS DENSE THAN MILK?

WHICH LAYERS ARE MORE DENSE THAN 1G/ML?

WHY IS THE CHERRY TOMOTATO STOPPEDIN THE DISH SOAP?

WHY IS THE BOLT AT THE BOTTOM?

- Draw the diagram and fill out the freezing point, vaporization point, and liquid points of water in both F and C.
- What are the 4 phases?
- What are the properties of a liquid?
- What are the properties of a solid?
- What are the properties of a gas?

- Describe how you know something is undergoing chemical change?
- Describe clues that demonstrates a physical change?
- Give examples of physical change
- Give examples of a chemical change
- Explain solubility – dissolve how it works.

ANSWERS….

1_____ Atoms

2_____Sub-Atomic Particles

3_____ Elements

4_____Matter

5_____Mass

6_____Motion

7._____ Volume

8. _____Density

A. Anything that takes up space and has mass.

B. Shows movement over time

C. the microscopic building blocks that have chemical properties of all living and nonliving things.

D. protons, neutrons, and electrons

E. Any pure substance that cannot be broken down. There are 100 of these known to man.

F. The amount of matter an object has inside it.

G. the amount of matter inside a specific amount of space.

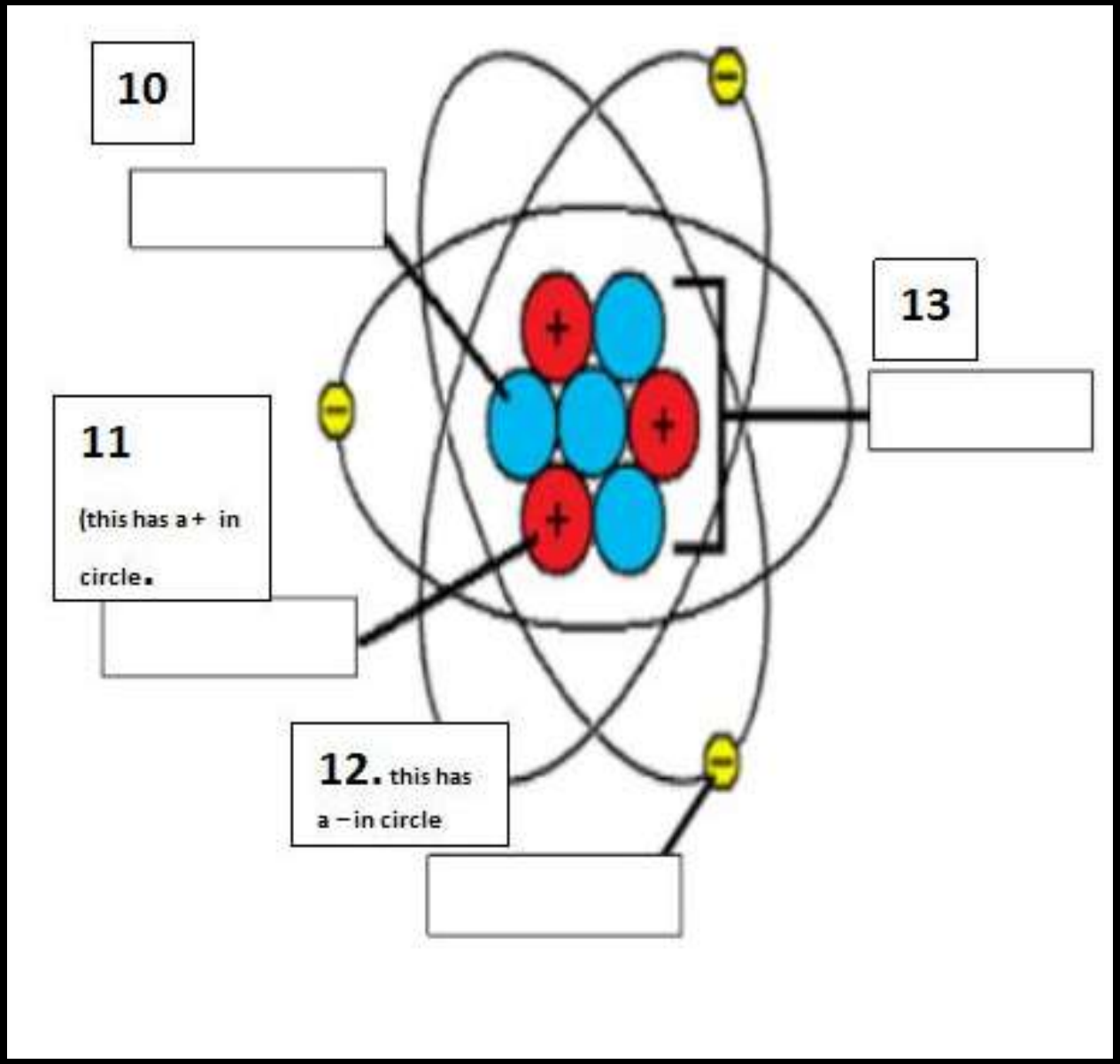
H. The amount of space an object takes up.

10.
NEUTRONS

11.
PROTONS

12. ELECTRO
NS

13. NUCLEUS



- What are the building blocks of all matter? ATOMS

- What makes up the 99% mass of an atom? (hint its what makes it unique)
- PROTONS AND NEUTRONS IN THE NUCLEUS

- Can you see atoms with your naked eye? TOO SMALL MICROSCOPIC

- What are the particles of atoms? PROTONS, NEUTRONS, AND ELECTRONS

- What makes an atom unique? What makes an oxygen atom different from a hydrogen atom? THE NUMBER OF PROTONS IT HAS GIVES THE ATOM IT'S IDENTITY AND IT'S CHEMICAL FORMULA.

- How do you find volume of an object? MEASUREMENT OR WATER DISPLACEMENT
- What is the formula for volume? V= L*W*H
- How do you find the mass of an object? USE A TRIPLE BEAM BALANCE
- What is the formula for density? D = M/V

- What is the density of something that has L=5cm W= 2cm H=2cm and mass of 45g?
  - FIRST FIGURE OUT THE VOLUME: V=L*W*H v= 2*2*5 v = 20 cm cubic
  - Density = mass/volume D= 45g/ 20cm3 D= 2.25 g/cm3
- What is the density of something that has mass of 3, 465g and a volume of 893cm3?
  - D= m/v D- 3465/893 D= 3.88 g/cm3
- What is the density of something that has the mass of 4, 590 g and when dropped in water the graduated cylinder rises from 28mL to 47mL?
- FIRST FIGURE OUT THE VOLUME: you started with 28mL and ended with 47mL. Therefore the water displaced was 19mL D=m/v D= 4590g/19mL D= 241.58g/mL:
- What is the density of 894g and volume of 93mL? D=m/v D= 894g/93mL D=9.61 g/mL

WHICH LAYERS HAVE ARE LESS DENSE THAN MILK?

DISH SOAP, WATER, VEG OIL, ALCOHOL, AND LAMP OIL.

WHICH LAYERS ARE MORE DENSE THAN 1G/ML?

DISH SOAP MILK MAPLE SYRUP CORN SYRUP AND HONEY

WHY IS THE CHERRY TOMOTATO STOPPEDIN THE DISH SOAP?

B/C IT IS LESS DENSE THAN THE LAYER BELOW IT.

WHY IS THE BOLT AT THE BOTTOM?

IT IS THE MOST DENSE

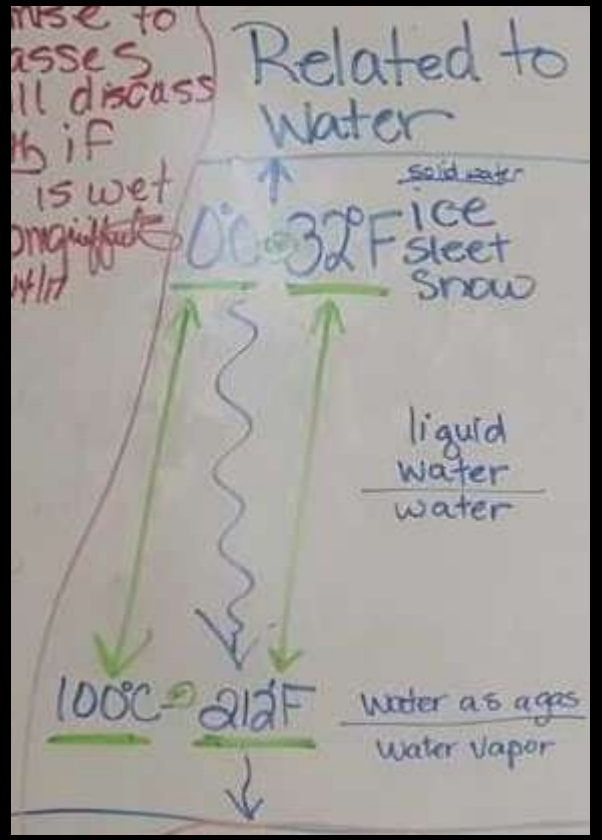
- Draw the diagram and fill out the freezing point, vaporization point, and liquid points of water in both F and C.
- Here is one from our early notes…→

- What are the 4 phases? Solid, liquid, gas, plasma

- What are the properties of a liquid?
- Fixed volume but not fixed shape.

- What are the properties of a solid?
- Fixed volume and fixed shape

- What are the properties of a gas?
- No fixed volume and no fixed shape



- Describe how you know something is undergoing chemical change? Chemical changes often show bubbles, fizzing, odor and are a permanent change.
- Describe clues that demonstrates a physical change? Changes in size, shape, color, and phases
- Give examples of physical change (answers will vary)
- Give examples of a chemical change (answers will vary)
- Explain solubility – dissolve how it works. Solv = latin for "to loosen" dis is latin for "apart" water molecules like to stick together/cohesive in nature. If something is soluble then it likes water and the water molecules will loosen their bonds and it will stick to the water molecules.