

Name _____ Period _____ Date _____

1st Semester Final Exam Review WebQuest

http://www.chem4kids.com/files/elem_periodable.html

1. Why are the elements placed in specific places on the Periodic Table?
2. Periods are _____ that run from _____ to _____.
3. Elements in the same period have the same _____.
4. Every element in the first period has _____ shell for its _____. Every element in the second period has _____ for its _____. See the pattern?
5. Groups are _____ that run from _____ to _____.
6. The elements of a group have the same number of _____ in their _____ shell.
7. Every element in group one has _____ electron in its outer shell. Every element in group two has _____ electrons in its outer shell.

http://www.chem4kids.com/files/elem_noblegas.html

8. Click on Noble Gases (left bar) and answer these questions.

- a. What is the group number? _____
- b. Why were these gases considered to be inert or stable? _____

<http://www.qacps.k12.md.us/qhs/teachers/WeedonD/Atoms%20page%203.htm>

1. The basic unit of all matter is the _____.
2. All atoms are made of three types of particles _____, _____, and _____.
3. The _____ is used to identify an atom.
4. Protons are found in the _____ of atoms. They have a _____ charge.
5. What happens when the number of protons in an atom changes?
6. Where are neutrons found in an atom?
7. How can you calculate the number of neutrons in an atom?
8. What is the charge on an electron?
9. How can you calculate the number of electrons in an atom?

10. An atom can gain or lose electrons to become an _____.
11. The removal of an electron results in a _____ charge.
12. THINK!! If 2 electrons were removed from magnesium, what would the charge on magnesium be? _____
13. Atoms that are involved in bonding are called _____ electrons.

Go To <http://www.chem.purdue.edu/gchelp/atoms/elements.html>

What are the visual differences between elements, compounds and mixtures?

Fill in below boxes with things you notice about what you can see in the “microscopic views” of elements, compounds, and mixtures

(Hint: Examine the animations and look at the 'Notes' section under the pictures)

ELEMENTS	COMPOUNDS	MIXTURES

Go To: http://www.chem4kids.com/files/matter_mixture.html

1. What does it mean that mixtures are about physical properties and not chemical properties?
2. What are two ways you might separate a mixture of sand and water?
 - a.
 - b.

<http://www.funtrivia.com/playquiz/quiz148865110c980.html>

Take the quiz and record your answers below.

ANSWERS

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

The Following Questions Contain the Links you need. Click on the question to go to the website. Green questions go with the links that came before them.

1. How is a molecule different than an atom?

2. What are the 4 states of matter?

3. Thermal energy is the _____ kinetic energy of all of the particles in a substance?

4. Temperature is the _____ kinetic energy of all of the particles in a substance?

5. How is thermal energy different than temperature?
6. What is heat?
7. So, heat moves through a system from _____ objects to _____ objects.
8. What must be added to the system to move from a solid to a liquid, and then to a gas?
9. What must be removed from the system to move from a gas to a liquid and then to a solid?
10. How does energy effect molecular movement of matter?
11. What is energy in motion called?
12. What are some examples of kinetic energy?
13. What is potential energy?
14. Why are gravitational energy and elastic energy examples of potential energy?
15. Give an example of how chemical energy is potential energy.
16. What is the law of conservation of energy?
17. List the different forms of energy.
18. Give 2 examples of different energy transformations.