

Name _____ Date _____ Block _____

Chemistry Matters

Go to the 8th grade Projects section of www.thesciencequeen.net. Go to the Chemistry Matters section.

Changing States

1. What is the melting point of water in Celsius? _____

Turn the water back to ice again. Does ice take up a smaller or larger volume of ice?

Knowing what you know about particles in a solid & in a liquid, why do you think that is? _____

2. What is the boiling point of water in Celsius? _____

3. How do you change it back to liquid? _____

What is this process called? _____

4. What happens when you heat the steam above 100°C? _____

Explain why it happens? _____

Reversible & Irreversible Changes

5. When you put the sugar in the water, where does it go? _____

6. Try some other substances. Which ones are water soluble? _____

7. Click on the reversing button. In the chart, write the substances that undergo a physical change, and those which undergo a chemical change.

Physical Change	Chemical Change

Chemical Mix-up

Play the game. Try to get to level three. Then fill in the chart below using the substances the game used.

Element	Compound	Mixture

Mixture Lab

Play the game then fill out the chart.

	Mixture	Separation Mechanism	Physical Properties that allow separation
1	Sand & Iron Fillings		
2	Salad		
3	Salt & Water		
4	Muddy Water		
5	Dust in the Air		

Chemistry & You

8. Click on the baby Sarah. How does chemistry make her life better?

9. Click on Thomas. How does chemistry make his life better?

10. Click on Igor. What is his profession & where does he live?

11. How does chemistry make his life better?

Click on *explore the living room*.

12. How does chemistry make the armchair safer? _____

13. The polymer in the hi fi stereo is how many times the impact resistance than glass? _____

14. Click on the arrow at the bottom of the screen & go into the next room.

What is put in the water to make it safer for us to drink? _____

Chem Balancer

(Play the game, when you get the formula balanced, you will get the answers to these questions!)

15. What was a ferrier? _____ What does Fermium in Latin mean? _____

16. Where can you find HCL? _____

If you have too much, what can it cause? _____

17. What is magnesium used in? _____ Why? _____

18. Where can Mercury be found? _____

19. What happens when Calcium is dropped in water? _____

20. Methane is a relative of _____ & _____.

21. What is the formula for sulfuric acid? _____

22. What is a key ingredient in fertilizers & explosives? _____

23. What does pyrolysis mean? _____

Changing State Fill in the Blank.

There are _____ states of matter. They are _____, _____, and _____. We can change a _____ into a liquid by _____ it until it _____. The temperature at which it melts is called the _____ of the solid.

If we would continue to heat the liquid the liquid will get _____. Eventually it will start to _____. This is when liquids become _____. The temperature at which it _____ is called _____.

the _____ . But a liquid does not need to be heated to the boiling point before it changes state to a gas. It can happen even at room temperature. This process is called

We can also _____ gases down. When gases are cooled they change states and become _____. We call this _____. When the liquid is cooled down further it will eventually _____. This is when a liquid becomes a solid and the temperature is called the _____.

Changing from a solid substance to a liquid and from a liquid to a gas requires heat energy to be _____ to the substance.

And changing states from gas to liquid and then to solids involve _____ heat energy from the substance.

Quiz 1

How did you do? Record your answer & have the teacher initial it.

Score _____ Teacher's Initials _____

Quiz 2

How did you do? Record your answer & have the teacher initial it.

Score _____ Teacher's Initials _____