

# Chemistry

## Chapter 1 and 2 Jeopardy

Jennie L. Borders



# Round 1 – Chapter 1 and 2



Chemistry	Scientific Method	Properties of Matter	Mixtures	Elements and Compounds	Surprise
100	100	100	100	100	100
200	200	200	200	200	200
300	300	300	300	300	300
400	400	400	400	400	400
500	500	500	500	500	500

# Round 2 – Chapter 1 and 2

[Click to go to Round 2](#)

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# Chemistry 100

What is matter?

Anything that has mass and  
occupies space.



# Chemistry 200

What is organic chemistry?

The study of chemicals containing carbon.



# Chemistry 300

What is inorganic chemistry?

The study of all chemicals that do not contain carbon.



# Chemistry 400

What is analytical chemistry?

The study of the composition of matter.



# Chemistry 500

What is biochemistry?

The study of the reactions and processes that occur in living organisms.



# Scientific Method 100

What is the scientific method?

A logical, systematic approach to solving a scientific problem.



# Scientific Method 200

What is a hypothesis?

An educated guess based on observations.



# Scientific Method 300

What were alchemists trying to accomplish?

They were trying to synthesize gold from other metals.

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# Scientific Method 400


Why were alchemists important?

They developed many tools and techniques for using chemicals that we still use today.



# Scientific Method 500

What are the 5 steps of the scientific method in order?

- 1. State the problem**
  - 2. Observe**
  - 3. Hypothesis**
  - 4. Experiment**
  - 5. Conclusion**
- 
- The background of the slide is a solid blue color. In the bottom right corner, there are several faint, concentric circles that resemble ripples in water, creating a decorative effect.

# Properties of Matter 100

What is volume?

The amount of space an object occupies.



# Properties of Matter 200

What is mass?

The amount of matter an object contains.



# Properties of Matter 300

What is a physical change?

A change in the form of a substance  
that does not change the  
composition.



# Properties of Matter 400

What is an intensive property and what is an example?

A property that depends on the type of matter.

Ex: boiling point or density



# Properties of Matter 500

What is an extensive property and what is an example?

A property that depends on the amount of matter.

Ex: volume and mass

The background of the slide is a solid blue color. In the bottom right corner, there are several faint, concentric circles that resemble ripples in water, rendered in a slightly lighter shade of blue.

# Mixtures 100

What is a mixture?

Two or more components combined  
(not bonded) causing a variable  
composition.



# Mixtures 200

What is a heterogeneous mixture?

A mixture with a noticeable variable composition.



# Mixtures 300

What is a homogeneous mixture and what is another name for it?

A mixture that appears to have a constant composition.

Solution

The background of the slide is a solid blue color. In the lower half, there are several sets of concentric, light blue circles that resemble ripples on water. These circles are of varying sizes and are positioned towards the bottom right of the slide.

# Mixtures 400

What is filtration?


Separating a mixture based on  
particle size.



# Mixtures 500

What is distillation?

separating two substances  
depending on a difference in boiling  
points.

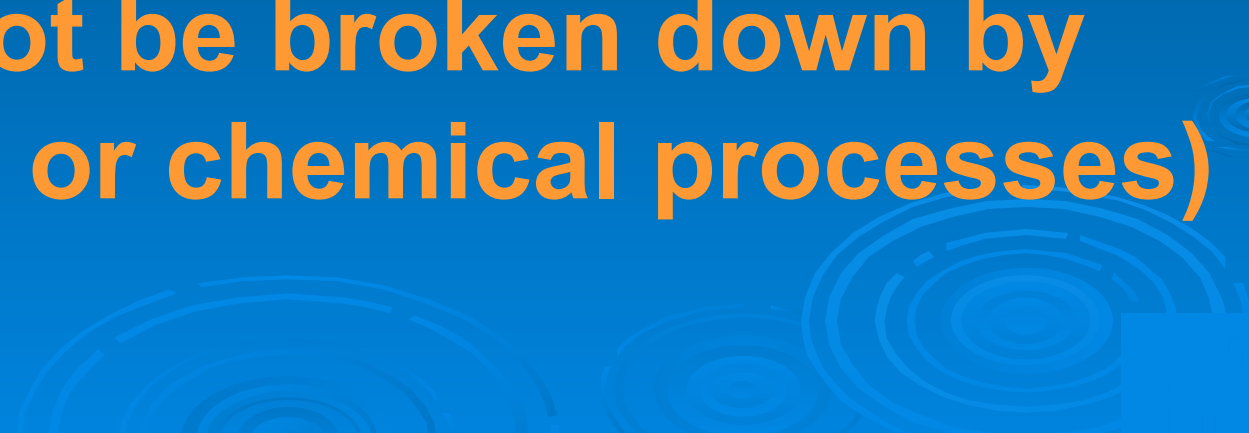


# Elements and Compounds

## 100

What is an element?

**the simplest form of matter that  
has a uniform set of properties  
(cannot be broken down by  
physical or chemical processes)**

The background of the slide is a solid blue color. In the bottom right corner, there are several faint, concentric circles that resemble ripples in water, creating a decorative effect.

# Elements and Compounds

## 200

What is a compound?

**A substance that contains two or more elements chemically combined in a fixed proportion.**

The background of the slide is a solid blue color. In the bottom right corner, there are several faint, concentric circles that resemble ripples on water, adding a decorative touch to the design.

# Elements and Compounds

## 300

What is a chemical change?

A change that alters the  
composition of a substance.



# Elements and Compounds

## 400

What is the symbol for mercury?

Hg



# Elements and Compounds

## 500

What is the symbol for tin?

Sn

# Surprise 100

What is the known in a math problem?


what is given  
in the problem



# Surprise 200


What is the unknown in a math problem?

**what you are  
trying to  
calculate (the  
variable)**

The background of the slide is a solid blue color. In the bottom right corner, there are several sets of concentric circles, resembling ripples in water, rendered in a lighter shade of blue. These circles are of varying sizes and are positioned in a way that they appear to be emanating from different points, creating a sense of depth and movement.

# Surprise 300

What are the 3 steps to solving a math problem?

- 1: Analyze**
  - 2: Calculate**
  - 3: Evaluate**
- 
- The background of the slide features several concentric, light blue circular ripples, resembling water droplets, scattered across the lower half of the frame.

# Surprise 400

What 2 parts must a math answer contain for you to get full credit?

**a number and a  
UNIT!!!**

The background of the slide features several concentric, light blue circular ripples that resemble water droplets hitting a surface, positioned in the lower right quadrant.

# Surprise 500

If your heart beats 72 times per minute, how many times will your heart beat per day?

103,680 beats/day



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800	800	800	800	800	800
1000	1000	1000	1000	1000	1000

# Chemistry 200

What is chemistry?

Chemistry is the study of matter  
and how it changes.



# Chemistry 400

What is physical chemistry?


The study of the mechanism, the rate, and the energy transfer that occur when matter undergoes changes.



# Chemistry 600

What are the 5 branches of chemistry?

organic chemistry  
inorganic chemistry  
analytical chemistry  
biochemistry  
physical chemistry



# Chemistry 800

Under which 2 branches of chemistry  
would the following situation fall?

Factors that affect the breathing rates  
during exercise.

physical chemistry (rate)

biochemistry (breathing)



# Chemistry 1000

Under which 2 branches of chemistry would the following situation fall?

Explain how a lack of calcium can affect the growth and repair of bones.

Inorganic chemistry (calcium)  
biochemistry (bones)

# Scientific Method 200

What is the difference between a law  
and a theory?

A law tells WHAT happens, while  
a theory is our attempt to explain  
WHY something happens.



# Scientific Method 400

What is a manipulated/independent variable?

The variable that a researcher changes during an experiment.



# Scientific Method 600

What is the responding/dependent variable?

**The variable that is observed during an experiment.**



# Scientific Method 800

Theory or Law:

The sky is blue because of the bending of light throughout the atmosphere.

Theory – it explains WHY the sky is blue



# Scientific Method 1000

What is the responding/dependent variable in the following experiment?

Adding salt to water to see the effect on the boiling point.

effect on the boiling point



# Properties of Matter 200

What are the four states of matter?

**solid**

**liquid**

**gas**

**plasma**



# Properties of Matter 400

What is a substance?

A substance has a uniform composition.



# Properties of Matter 600

What is a vapor?

**A gas that normally exists as a solid or liquid at room temperature.**



# Properties of Matter 800

Physical change or chemical  
change?

sugar dissolves in water

physical change



# Properties of Matter 1000

What is a plasma?

A gas-like phase made of positive ions and electrons.



# Mixtures 200

Homogeneous or heterogeneous?  
skim milk

homogeneous



# Mixtures 400

Homogeneous or heterogeneous?

sour milk

**heterogeneous**



# Mixtures 600

Homogeneous or heterogeneous?

wood

**heterogeneous**



# Mixtures 800

Homogeneous or heterogeneous?  
salt dissolved in water

homogeneous



# Mixtures 1000

Explain how air can be considered both a homogeneous mixture and a heterogeneous mixture?

Air is homogeneous because it is a mixture that usually appears the same throughout.

Air can be heterogeneous when it contains smoke or pollution.

# Elements and Compounds

## 200

Element, compound, or mixture?

brass

mixture



# Elements and Compounds

## 400

Element, compound, or mixture?

argon

**element**



# Elements and Compounds

## 600

Element, compound, or mixture?

carbon dioxide

compound



# Elements and Compounds

## 800

Element, compound, or mixture?

lake water

mixture



# Elements or Compounds

## 1000

How can water be considered both a compound or a mixture?

Pure water is a compound.

Most “water” is a mixture. Ex: tap water or ocean water



# Surprise 200

What is a reactant?

The chemicals that you start with  
in a reaction.



# Surprise 400

What is a product?

The substances formed at the end of a chemical reaction.



# Surprise 600

What is the law of conservation of mass?

Mass cannot be created nor destroyed.



# Surprise 800

What is a precipitate?

A solid formed during a reaction  
involving liquids.



# Surprise 1000

What are the 5 signs of a chemical reaction?

1. production of light
  2. precipitate
  3. color change
  4. temperature change
  5. formation of a gas
- 