

<u>Science</u>	Revision Sheet For Final Exam	Term 1	
Name :	Date : / 11 / 2018	Grade : 5 /	

Dear Parents,

Please revise these worksheets with your child for the final exam on

Tuesday 4 /12/ 2018 in addition the required pages in the books as

follows:

Unit 2 - Matter

Lesson 1: What is Matter?

Lesson 2: What are Properties of Matter?

Lesson 3: How does Matter change?

NOTE- THE REVISION SHEET WITH ANSWERS, IS ON THE WEBSITE.

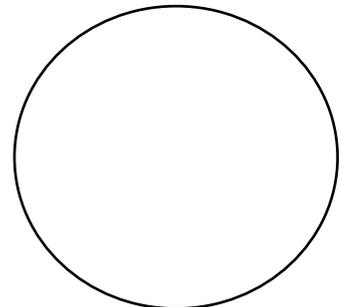
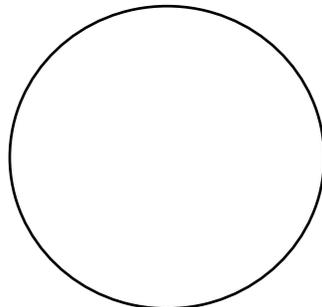
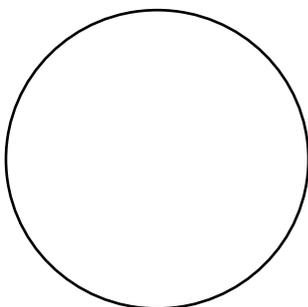
Good Luck

Summary of the Lesson 1: What is Matter?

- 1) Matter cannot be created or destroyed, but it can change form from solid to liquid to gas.
- 2) You can observe physical properties of matter without changing the matter into something new.
- 3) Temperature—a measure of how fast particles in matter are moving—is a physical property.
- 4) Matter is made of tiny particles; the particles have energy and are always moving.
- 5) **Volume** is the amount of space an object takes up
- 6) Particles in a solid vibrate close together, so the solid keeps its shape.
- 7) Particles in a gas have a lot of energy and are far apart, so a gas spreads out.
- 8) The particles in a gas have much more room to move than the particles in a liquid. In a solid, the particles can only vibrate in place.
- 9) Length can be measured using metric rulers, weight can be measured using balances, and volume can be measured using graduated cylinders.
- 10) To measure the volume of an irregular shaped object, the best method to use is **displacement**.

If it is a regular shaped object, such as the cube or a box, then you can measure it by using a formula- **Length x Width x height**

Q1) Draw the particle arrangement in Solid, Liquid and Gas



Q2) Find the volume of the object-

	Length	Width	Height	Volume
Object 1	10	10	2	

Q3) Define-

A. Matter

B. Volume

C. Displacement

Q4) Which are the examples of Matter and Not Matter?

Clouds	Heat	Air
Marshmallow	Shampoo	Sound

Matter	Not Matter

Summary of the Lesson 2: What are Properties of Matter?

- **Mixture** a combination of two or more substances that keep their identities
- The matter in a mixture may not be spread evenly throughout the mixture.
- A solution is a mixture in which the matter is spread evenly throughout.
- A solution forms when one kind of matter dissolves in another kind of matter.
- Air is a solution of different gases; the ocean is a solution of salt and water.
- Some solids, such as salt, dissolve in liquids, but others, such as sand, do not.
- Physical properties, such as size and color, can be used to separate the matter in mixtures.
- A magnet can be used to separate a mixture that contains objects made with iron.
- An alloy is a mixture of metals; steel is an alloy made from iron and other metals such as nickel.
- Shape, color, size, and response to magnetic forces are all properties of matter that can be used to describe and identify the substance.
- Solid objects are not very flexible, but the substance is flexible, elastic, and solid
- Conductors, like metals, easily move heat. Insulators, like potholders, limit heat transfer.

Q1) Give 3 examples of-

A. Mixture _____, _____, _____

B. Solution _____, _____, _____

C. Conductors _____, _____, _____

D. Insulators _____, _____, _____

Q2) What is the suitable property of these objects?

Bungee Cord	Copper wire	Iron pipe
Metal utensils	Gloves	Rubber band
Elasticity	Conductivity	

Summary of the Lesson 3: How does Matter change?

- **Physical change** - a change in matter that does not affect the type of matter

Matter has physical properties, such as color, size, shape, and mass. A *physical change* is a change in a physical property.

Soaking, shredding, and crumpling paper are *physical changes* because they change the physical properties of the paper. They do not change the paper into something new.

- **Chemical change** - a change in matter that results in a change in the identity of the matter

A *chemical change* creates matter with different properties. A cooked apple has different properties from a raw apple, so the apple has undergone a chemical change.

- Conservation of matter states that during chemical and physical changes, the matter may get rearranged, but the overall weight of the matter stays the same.

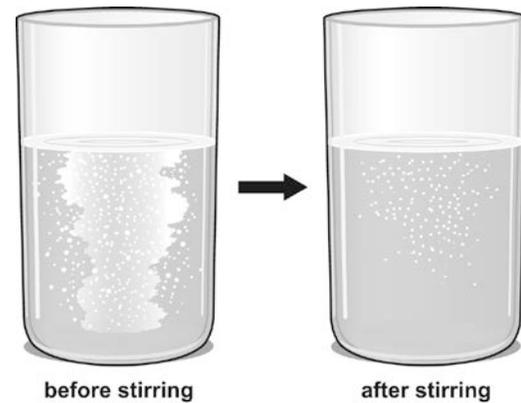
Q1) Write any 2 examples Chemical and Physical changes.

Chemical Change	Physical change

CRITICAL THINKING QUESTIONS

1) Ali wants to make a sugary fruit drink. He has a package of white powder. He pours the white powder into a glass of water. The pictures show how the powder looked before and after being stirred.

Explain whether the contents of the glass are solution, mixture, or alloy.



2) Why does it take a while for water to come to a boil? (2 Marks)

CIRCLE THE CORRECT ANSWERS

1) What is causing this physical change?

- Ⓐ Heat energy is moving from the ice to the air.
- Ⓑ Heat energy is moving from the air to the ice.
- Ⓒ Heat energy is causing the liquid water to freeze.
- Ⓓ Heat energy is moving between the two ice cubes.



2) Which statement about mixtures and solutions is **true**?

- Ⓐ All mixtures are solutions.
- Ⓑ All solutions are mixtures.
- Ⓒ All mixtures contain two types of matter.
- Ⓓ All solutions contain two types of matter.

3) Which beaker contains a solution?

- Ⓐ Beaker A
- Ⓑ Beaker B
- Ⓒ Beaker C
- Ⓓ Beaker D



A



C



B



D

4) Which of these changes is a chemical change?

- Ⓐ Freezing
- Ⓑ Melting
- Ⓒ Mixing
- Ⓓ Rusting

5) What is matter made up of?

- Ⓐ Liquid
- Ⓑ Living things
- Ⓒ Smaller particles

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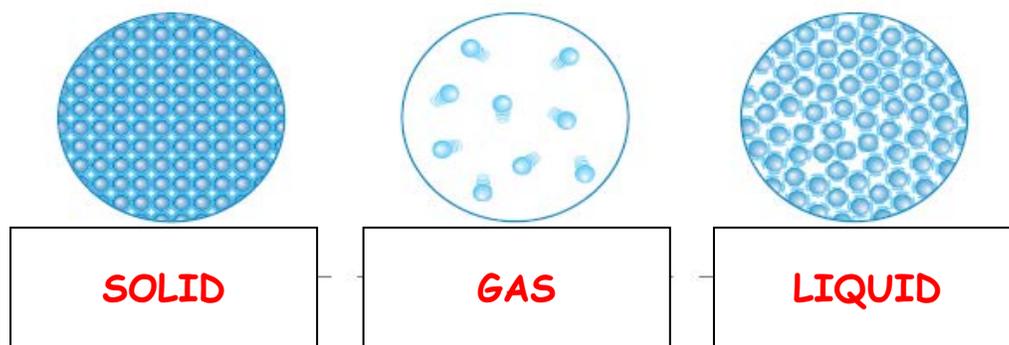
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Summary of the Lesson 1: What is Matter?

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- 12) You can observe physical properties of matter without changing the matter into something new.
- 13) Temperature—a measure of how fast particles in matter are moving—is a physical property.
- 14) Matter is made of tiny particles; the particles have energy and are always moving.
- 15) **Volume** is the amount of space an object takes up
- 16) Particles in a solid vibrate close together, so the solid keeps its shape.
- 17) Particles in a gas have a lot of energy and are far apart, so a gas spreads out.
- 18) The particles in a gas have much more room to move than the particles in a liquid. In a solid, the particles can only vibrate in place.
- 19) Length can be measured using metric rulers, weight can be measured using balances, and volume can be measured using graduated cylinders.
- 20) To measure the volume of an irregular shaped object, the best method to use is **displacement**.

If it is a regular shaped object, such as the cube or a box, then you can measure it by using a formula- **Length x Width x height**

Q1) Draw the particle arrangement in Solid, Liquid and Gas



Q2) Find the volume of the object-

	Length	Width	Height	Volume
Object 1	10	10	2	$10 \times 10 \times 2 = 200$

Q3) Define-

D. Matter

Anything that takes up space and has mass is called **matter**

E. Volume

Volume is the amount of space an object takes up

F. Displacement

To measure the volume of an irregular shaped object, the best method to use is **displacement**.

Q4) Which are the examples of Matter and Not Matter?

Clouds	Heat	Air
Marshmallow	Shampoo	Sound

Matter	Not Matter
Clouds	Heat
Marshmallow	Sound
Shampoo	
Air	

Summary of the Lesson 2: What are Properties of Matter?

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- Conductors, like metals, easily move heat. Insulators, like potholders, limit heat transfer.

Q1) Give 3 examples of-

E. Mixture **Salad, Jelly beans, Concrete**

F. Solution **Lemon Juice, Ocean Water, Tea**

G. Conductors **Metal Spoon, Copper, Wire Iron**

H. Insulators **Cloth, Plastic, Rubber**

Q2) What is the suitable property of these objects?

Bungee Cord	Copper wire	Iron pipe
Metal utensils	Gloves	Rubber band
Elasticity	Conductivity	
Bungee Cord	Metal utensils	
Gloves	Copper wire	
Rubber band	Iron pipe	

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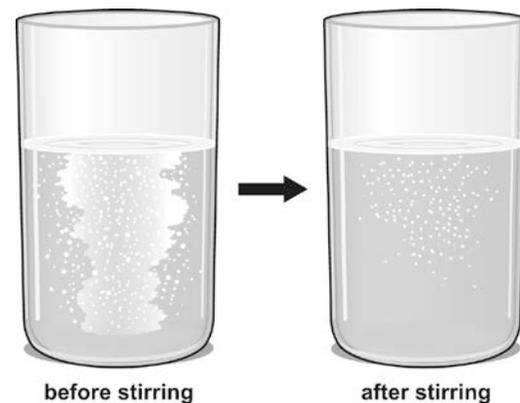
Chemical Change	Physical change
Burning of wood	Paper being torn
Baking a cake	Melting of ice
Rusting of a metal	Cutting a cake

CRITICAL THINKING QUESTIONS

3) Ali wants to make a sugary fruit drink. He has a package of white powder. He pours the white powder into a glass of water. The pictures show how the powder looked before and after being stirred.

Explain whether the contents of the glass are solution, mixture, or alloy.

It's a mixture and not a solution, because solutions parts are so well mixed that they can't be easily seen. It's also not an alloy as alloys are solution of metals.



4) Why does it take a while for water to come to a boil? (2 Marks)

Energy from a heat source must move into the water until the temperature of the water reaches its boiling point. And that can take a while. (Boiling point of water is 100 degree Celsius)

CIRCLE THE CORRECT ANSWERS

6) What is causing this physical change?

- (A) Heat energy is moving from the ice to the air.
- (B) **Heat energy is moving from the air to the ice.**
- (C) Heat energy is causing the liquid water to freeze.
- (D) Heat energy is moving between the two ice cubes.



7) Which statement about mixtures and solutions is **true**?

- (A) All mixtures are solutions.
- (B) **All solutions are mixtures.**
- (C) All mixtures contain two types of matter.
- (D) All solutions contain two types of matter.

8) Which beaker contains a solution?

- (A) Beaker A
- (B) **Beaker B**
- (C) Beaker C
- (D) Beaker D



A



C



B



D

9) Which of these changes is a chemical change?

- (A) Freezing
- (B) Melting
- (C) Mixing
- (D) **Rusting**

10)

What is matter made up of?

- (A) Liquid
- (B) Living things
- (C) **Smaller particles**

