CERVANTES, NONIE BETH G.

DETAILED LESSON PLAN IN SCIENCE 7

I. SUBJECT MATTER: SCIENCE 7

A. REFERENCE/S:
Chemistry III Textbook. Mapa, Amelia P., Ph.D., et al. 2001. pp. 38- 42. Science and Technology III: Chemistry Textbook. NISMED. 2012. pp. 34-38. Science and Technology III. NISMED. 1997. pp. 30-34

B. MATERIALS: Laptop, PowerPoint presentation, Video clips, Pictures
C. TARGET VALUE/S: Creativity, Unity and Cooperation

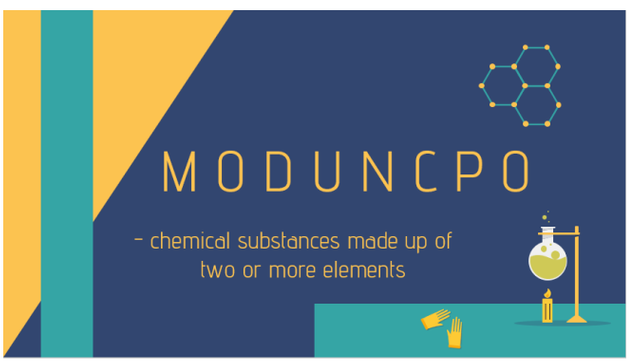
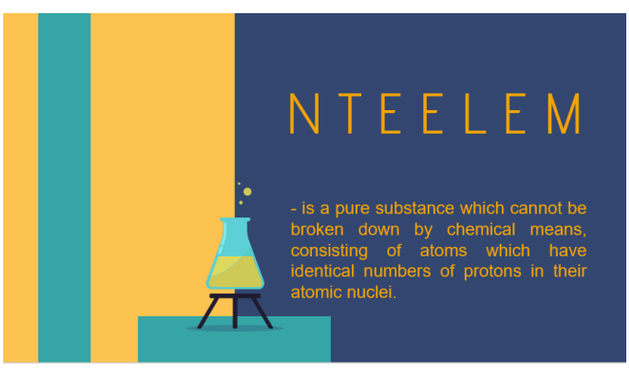
II. OBJECTIVES:

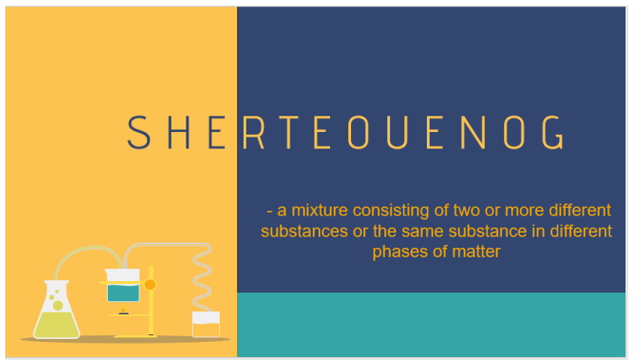
At the end of 60 minutes, the Grade 7 student is expected to:
a. (Cognitive Domain) - Identify the difference between a substance and a mixture based on a set of properties;
b. (Affective Domain) - Reflect on prior knowledge and experiences to construct new understanding on Substance and Mixtures.
Describe the properties of mixtures, solution and pure substances.
c. (Psychomotor Domain) – State the properties of mixtures of varying concentrations using available materials in the community for specific purposes

III. PROCEDURE:

Teacher's Activity	Pupil's Activity
A. Daily Routine	
1. Prayer	
Good morning students....	Good morning, Ma'am…
Okay, let us pray first….	(One student will lead the Prayer)
Before you take your seats, please pick up any pieces of paper or trashes. Then, please arrange your chairs properly.	(arrange chairs and pick up pieces of paper)

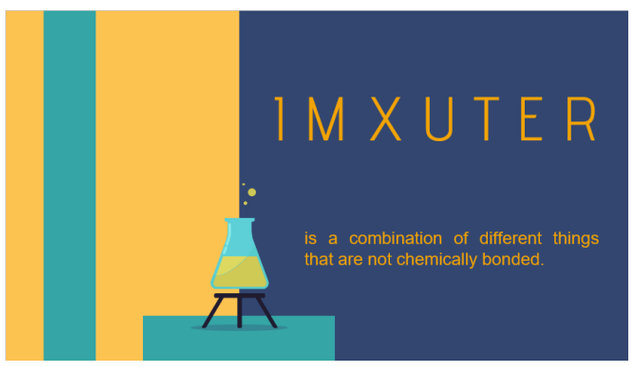
You may now take your seats.	(take seats)
2. Checking of attendance Class, may I know who are absent for today?	No one, Ma'am
Very good! It is nice to know that you really love my subject, SCIENCE. So, let's give everybody a round of applause.	(clap hands)
3. Checking of Assignment Bring your assignments from yesterday and let us check.	
Please pass it forward all the notebooks for recording the scores.	(students will get their assignments for checking)
4. Review (Have a recap of what have discussed yesterday)	
And before we start to our new lesson let us have first a review regarding our previous lesson. Anyone who wants to recall the previous topic?	(students will raise their hands)
Very good.	

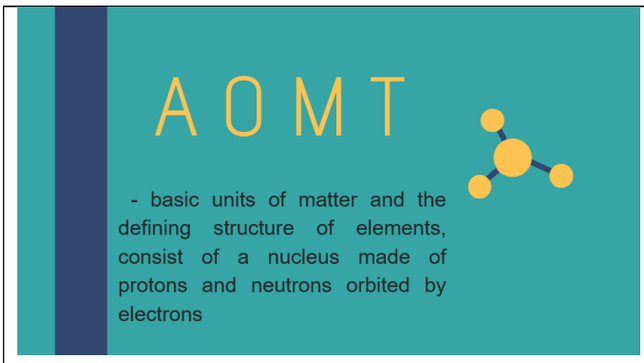
	(student will answer)
B. Preliminary Activities 1. Motivation Now, we will proceed to another interesting topic for today. But, before that, let's play a game. Raise your hand if you want games. Let's have a game, I will show you a series of letters. There's a "TEXT TWIST" given. Arrange them properly to find the hidden words. Okay. Let's start now. Are you ready? What is the word?   	(students will raise their hands) Yes ma'am! COMPOUND!



ELEMENT!

HOMOGENOUS!





HETEROGENOUS!

Very good my dear students.

2. Presentation

Today we will discuss about SUBSTANCE and MIXTURES.

C. Lesson Proper

(The teacher will introduce and discuss the lesson using the PowerPoint Presentation.)

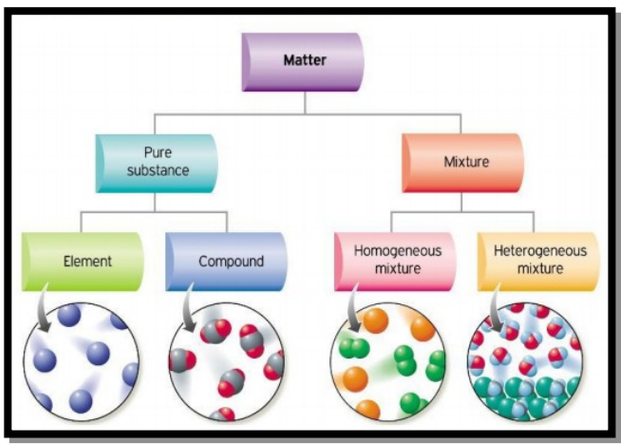
SUBSTANCE!

Chemists can classify matter as solid, liquid, or gas. But there are other ways to classify matter, as well — such as pure substances and mixtures. Classification is one of the basic processes in science. All matter can be classified as either a pure substance or a mixture.

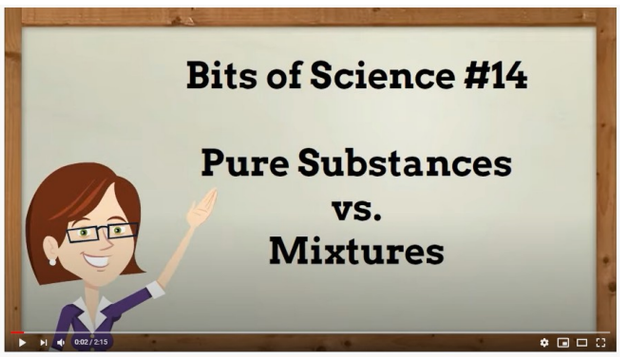
A pure substance has a definite and constant composition — like salt or sugar. A pure substance can be either an element or a compound, but the composition of a pure substance doesn’t vary.

An element is composed of a single kind of

atom. An atom is the smallest particle of an element that still has all the properties of the element. Here's an example: Gold is an element. If you slice and slice a chunk of gold until only one tiny particle is left that can't be chopped any more without losing the properties that make gold, then you've got an atom. A compound is composed of two or more elements in a specific ratio. For example, water is a compound made up of two elements, hydrogen (H) and oxygen (O). Mixtures are physically combined structures that can be separated into their original components. For example, suppose you have a mixture of salt and sand, and you want to purify the sand by removing the salt. You can do this by adding water, dissolving the salt, and then filtering the mixture. You then end up with pure sand. A mixture is composed of different types of atoms or molecules that are not chemically bonded. A heterogeneous mixture is a mixture of two or more chemical substances where the various components can be visually distinguished. A homogeneous mixture is a type of mixture in which the composition is uniform and every part of the solution has the same properties. Various separation techniques exist in order to separate matter, including include distillation, filtration, evaporation and chromatography. Matter can be in the same phase or in two different phases for this separation to take place. Remember this concept map.	MIXTURE! ATOM!



And now, let's watch a short videoclip about Substance and Mixtures.



Bits of Science #14 Pure Substances vs Mixtures

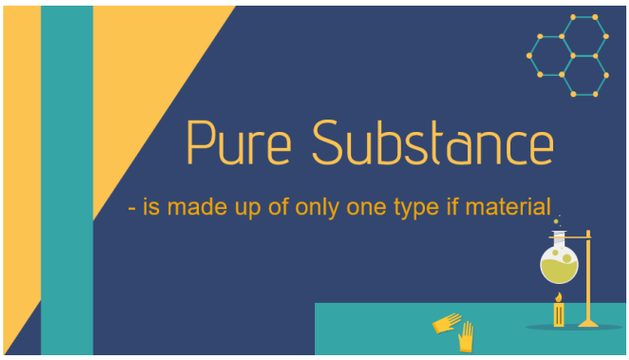
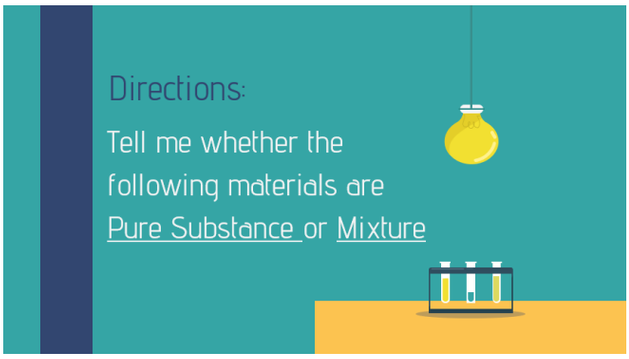
(students listen attentively)

Comparison and Abstraction

A. Practice Exercise/

Let us now have an exercise

Before we start, I want you to know the

definitions of Pure Substance and Mixture.    Are you ready? The first picture is……	(students listen attentively)

	
	
	
	(students watch attentively)


7up
pepsi
Dr Pepper

	
	Yes ma’am!
Very good class.	
A. Generalization	(students will answer)
Class, let’s have a recap for today’s lesson, what have you learned in our class today?	Mixture!
Very good. That is right! Therefore, physical properties of pure substances are definite and constant. While mixture have varying physical properties.	

B. Application

True or False

1. Is Copper is a mixture?
   (Answer: False)
2. Is an unopened soda in a bottle has the same composition of particles throughout?
   (Answer: True)
3. Is Salt water is a mixture?
   (Answer: False)
4. Is Perfume is a homogeneous mixture
   (Answer: True)

5. Is Sand is a homogeneous mixture?
   (Answer: False)

The picture is an example of _____

The picture is an example of _____

The picture is an example of _____

Mixture!

Pure Substance!

Mixture!

C. Value Integration ● Critical thinking ● Cooperation ● Creativity	Pure Substance! Mixture!

	Mixture! Mixture! Pure Substance!

	Pure Substance! We learned that a pure substance is made up of only one kind of particle. For example, table sugar only contains sugar particles and distilled water contains only water particles. Mixtures are made up of pure substances combined together. A mixture is composed of at least two different kinds of particles like salad and other meals that we eat.

	(students listen attentively) (students will answer)

IV. EVALUATION

Distinguishing Pure Substances vs. Mixtures:
Directions: Put an X in the box that best describes the substances below.

Substance Name	Homogeneous Mixture	Heterogeneous Mixture	Pure Substance
1. Iron Fillings			
2. Oil and Water			
3. Baking Soda ($NaHCO_3$)			
4. Apple Juice			
5. Granite			

V. ASSIGNMENT

Give 5 examples of Pure substance, Heterogenous mixture and Homogenous Mixture that you will find at home. Write a short description about the properties of the given examples.