DAILY LESSON PLAN	School	Candaping National High School			Grade & Section	7 - Almeda
	Teacher	Ronie B. Mabayambang			Learning Area	SCIENCE
	Teaching Dates & Time				Quarter	1
	Week No.	3	Day	1	Duration	

I. OBJECTIVES	*Objectives must be met over the week and connected to the curriculum standards. To meet the objectives, necessary procedure must be followed and if needed, additional lessons, exercises, remedial activities may be done for developing content knowledge and competencies. These are assessed using Formative Assessment strategies. Valuing objectives support the learning of content and competencies and enable children to find significance and joy in learning the lessons. Weekly objectives shall be derived from the curriculum guide.*
A. Content Standards	The Learners demonstrate an understanding of the properties of substances that distinguish them from mixtures.
B. Performance Standards	The Learners shall be able to investigate the properties of mixtures of varying concentrations using available materials in the community for specific purpose.
C. Learning Competency/ies Write the LC Code for each.	1. Distinguish mixtures from substances based on a set of properties. **S7MT-Ie-f-4**
D. Learning Objectives	**Knowledge**: Distinguish mixtures from substances in terms of properties. **Skills**: Tabulate the properties of pure substance and mixture. **Attitudes**: Develop awareness that materials are classified into pure substance and mixture.
II. CONTENT/TOPIC	*Content is what the lesson all about. It pertains to the subject matter the teacher aims to teach in the CG, the content can be tackled in a week or two.* Pure Substance vs. Mixture
III. LEARNING RESOURCES	*List the materials to be used in different days. Varied sources of materials sustain children's interest in the lesson and learning. Ensure that there is a mix of concrete and manipulative materials as well as paper-based materials. Hands-on learning promotes concept development.*
A. References	
1. Teacher's Guide pages	pp. 17-25
2. Learner's Materials pages	pp. 6-12
3. Textbook pages	1. Chemistry III Textbook. Mapa, Amelia P., Ph. D., et. al. 2001. pp. 38-42. 2. Science and Technology III: Chemistry Textbook. NISMED. 2012. pp. 34-38. 3. Science and Technology III. NISMED. 1997. pp. 30-34.
4. Additional Materials from Learning Resource (LR) Portal	1. EASE Science III. Module 3. Lesson 2. 2. EASE I. Module 5. Lesson 3. 3. BEAM III. Unit 2. 5 Demonstrate Skill in Studying Chemical System. Pure Substance and Mixture. August 2009.
B. Other Learning Resources	Activity sheets, pen, distilled water, seawater, beaker (50-mL), 2 pcs., aluminum foil, 2 pcs., thermometer (with readings up to 110^{0}C), cork/rubber to fit thermometer, iron stand/clamp, alcohol lamp, safety matches, watch/timer, and graphing paper
IV. PROCEDURES	*These steps should be across the week. Spread out the activities appropriately so that students will learn well. Always be guided by demonstration of learning by the students which you can infer from formative assessment activities. Sustain learning systematically by providing students with multiple ways to learn new things, practice their learning, question their learning processes, and draw conclusion about what they learned in relation to their life experiences and previous knowledge. Indicate the time allotment for each step.*
A. Reviewing previous lesson or presenting the new lesson. **ELICIT** (The activities in this section will evoke or draw out prior concepts of or experiences from the students)	AWARENESS: Show video clip on Mixtures Separating Song - YouTube (360p), Website: https://www.youtube.com/watch?v=Pr7JU0zsLNs, or URL: https://youtu.be/Pr7JU0zsLNs
B. Establishing a purpose for the lesson. **ENGAGE** (The activities in this section will stimulate their thinking and help them access and connect prior knowledge as a jumpstart to the present lesson.)	AWARENESS: A review on matter will be made by asking these questions: 1. What is matter? 2. What is matter made up of? 3. How is matter classified?
C. Presenting examples/instances of the new lesson.	AWARENESS:
D. Discussing the new concepts and practicing new skills #1. **EXPLORE** (In this section, students will be given time to think, plan, investigate, and organize collected	ACTIVITY: With their teammates, the students will be asked to perform an investigative activity using the materials indicated above. (Refer to the activity sheet on the next page). After conducting the activity, a representative from each group will be asked to present their data in front of the class.

information; or the performance of the planned/prepared activities from the student's manual with data gathering and Guide questions)		
E. Discussing the new concepts and practicing new skills #2.		
F. Developing mastery (Leads to formative assessment 3). EXPLAIN (In this section.	ANALYSIS	These questions will be asked to the students: 1. What makes up distilled water? Seawater? 2. What have you noticed with the temperature of the distilled water and seawater at the start of boiling? 3. What happened with the temperature of the distilled water and seawater during
G. Making generalization and abstraction about the lesson. ELABORATE (This section	ABSTRACTI	How does pure substance differ from mixture?
H. Finding practical application of concepts and skills in daily living.	APPLICATION	Make a chart on the difference between pure substance and mixture.
I. Evaluating learning. EVALUATION (This section will provide for concept check test items and answer key	ASSESSMEN	Write True if the statement is correct. But if it's not, write false on your answer sheet. 1. During boiling, the temperature of a mixture changes at the start then it becomes the same. 2. The temperature of a pure substance during boiling is different at different times.
J. Additional activities for application or remediation. EXTEND (This sections give	ASSIGNMEN	Give five examples of pure substance and another 5 examples of mixture.
V. REMARKS		
VI. REFLECTION		*Reflect on your teaching and assess yourself as a teacher. Think about your students' progress this week. What works? What else needs to be done to help the students learn? Identify what help your instructional supervisors can provide for you so when you meet them, you can ask them relevant question.*
A. No. of learners who earned 80% on the formative assessment		
B. No. of learners who require additional activities for remediation		
C. Did the remedial lesson work? No. of learner who caught up with the lesson		
D. No. of learner who continue to require remediation		
E. Which of my teaching strategies worked well? Why did these work?		
F. What difficulties did I encounter which my principal or supervisor can help me solve?		
G. What innovation or localized materials did I use/ discover which I wish to share with other teachers?		

NOTE: Procedure is adapted/adopted from DLP 2017 of DepEd-Division of Lapu-Lapu City as reference.

Name: _____ Date Submitted: _____
Grade & Section: _____ Group No.: _____ Score: _____

Investigative Activity No. 2

Looks may be Deceiving

Objectives

In this activity, you should be able to:
1. assemble properly the setup for boiling;

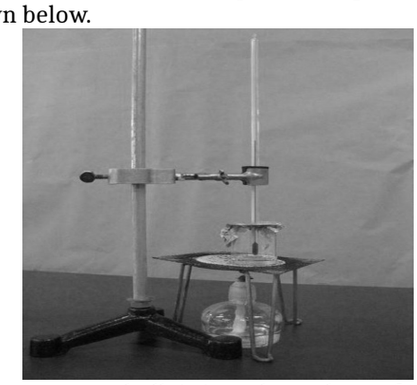
2. describe the change in temperature of a substance during boiling;
3. describe the change in temperature of a mixture during boiling; and
4. differentiate between substances and mixtures based on how temperature changes during boiling.

Materials Needed

distilled water
seawater
beaker (50-mL), 2 pcs
aluminum foil, 2 pcs
thermometer (with readings up to 110^{o}C)
cork/rubber to fit thermometer
iron stand/clamp
alcohol lamp
safety matches
watch/timer
graphing paper

Procedure

1. Place about 15 mL of distilled water into a beaker. Label it properly. Describe the appearance and odor of your sample. In your worksheet, write your descriptions in Table 1.
2. Cover the mouth of the beaker with aluminum foil. Using the tip of your pen, poke a hole at the center of the foil. The hole should be big enough for the thermometer to pass through.
3. Prepare the setup as shown below.



Notes: Make sure that the thermometer bulb is just above the surface of the sample (about 1 mm). Also, make sure that the heat is evenly distributed at the bottom of the beaker.
4. Begin recording the temperature when the sample starts to boil vigorously. Record your temperature reading in Table 1 under the column, Distilled water.
5. Continue boiling and take at least 5 readings at intervals of 30 seconds after the liquid has started to boil vigorously. Note even the slight changes in temperature. Record your temperature readings in Table 1 under the column, Distilled water.
6. Stop heating when the liquid sample reaches half of its original volume.
7. Present your data for distilled water in a graph. Place the temperature reading along the y-axis and the time along the x-axis. Label the graphs appropriately.
Q1. Refer to the graph and your data for distilled water, what do you notice about its temperature during boiling?

Q2. How would you define a substance based on what you have observed?

8. Repeat steps 1 to 7 using seawater. This time, record your temperature readings in Table 1 under the column, Seawater. Note even the slight changes in temperature.
Q3. Refer to the graph and your data for seawater, what do you notice about its temperature during boiling?

Q4. How would you define a mixture based on what you have observed?

Table 1. Temperature readings of the liquid samples during boiling at 30-sec interval

	Appearance/Odor	Distilled Water	Seawater
Temperature (^{o}C) after	Temperature (^{o}C) at the start of boiling		
	30 sec		
	60 sec		
	90 sec		
	120 sec		
	150 sec		