LESSON PLAN ON CREATIVE THINKING SKILLS

Name of the teacher _____ Date _____

Name of the School _____ Grade : 7 (even)

Duration of the period :2x40' Subject: Chemistry

Topic of the lesson : Mixtures Sub-topic : **Creating Mixtures**

Students will learn about different types ofmixtures and their characteristics by creating simple mixture "recipes" and presenting themto the class

Objectives of the Lesson

At the end of the lesson the student will be able to:

•indentify the differences between *homogeneous*, *heterogeneous*, and *suspension* mixtures

• make mixtures out of various materials

• create recipes for mixtures and present them to the class

Prerequisite Knowledge

Have students read the book *Mixtures and Solutions* beforestarting the lesson. Students should understand that a mixtureis a combination of two or more materials.

Teaching Learning Materials

- *Mixtures and Solutions* books
- glass of water
- glass of lemonade (pulp-free)
- chalkboard and chalk or whiteboard and markers
- student copies of the *Mix It Up!* reproducible
- materials for mixtures: sugar, salt, sand, corn starch, flour,powdered drink mix, small pasta pieces, vegetable oil, water
- containers for materials (4 per material)
- label stickers
- tablespoon measuring scoop (4 per material)
- paper towels
- small clear containers (3 per group)
- spoons

Teaching Learning Activities

Activity 1.Introduction (8 minutes)

Show students a glass of lemonade. Ask: *Is this lemonade amixture?* Ask students how lemonade is made. Then ask students if they cansee the three ingredients in the glass of

lemonade.Explain that because the sugar dissolved in the lemonade, it is an example of a*homogeneous* mixture.

Activity 2: Class Discussion (20minutes)

- Write *homogeneous*, *heterogeneous*, and *suspension* on the board.
- Ask students to define a homogeneous mixture.
- Ask: *Can you see the parts that make up a homogeneous mixture?*
- Ask students for some examples of a homogeneous mixture and write their responses onthe board. (lemonade, brewed tea or coffee, etc.)
- Ask students to define a heterogeneous mixture.
- Ask: *Canyou see the parts that make up a heterogeneous mixture?*
- Have students give some examples of heterogeneous mixtures, and write their answers on the board.
- Ask students what a suspension mixture is. (a liquid thathas solid parts that separate over time)
- Ask: *Can you seethe parts that make up a suspension mixture?*(At first youcan't because the mixture is cloudy, but later you can seethe parts because the mixture separates.)
- Discuss someexamples of suspension mixtures and write them on theboard. (mixed paint, sandy water, muddy water, tomatojuice, etc.)

Activity 3: *Creating Mixture Recipes (20 minutes)*

- Before class begins, set up four materials stations for themixtures in four different areas of the classroom.
- Divideeach material into 4 containers, label each with thematerial's name, and lay a scoop by the container.
- Then put one container of each material at each stationaround the room, ensuring that each station has all thematerials.
- Line each station's surface with paper towelsin case of spills.
- Divide the class into small groups, and assign each groupto a station.
- Distribute the *Mix It Up!* reproducible, clearcontainers (3 per group), and spoons to each group. Tellstudents that they are going to create a homogeneous,heterogeneous, and suspension mixture.
- Explain that theingredients for their mixtures are in the labeled containers,and that each scoop equals one tablespoon.

- Tell studentsthat they should think about the characteristics of eachtype of mixture and then examine the ingredients todecide which ones they should combine to make eachmixture.
- Tell students that they should use only 2–3ingredients per mixture.
- Students should put the ingredientsfor each mixture in the clear containers, stir the ingredientsin their mixtures, and then write the results on theirreproducible.
- Students should also create names fortheir mixtures.

Activity 4: The Mixture Lab(32 minutes)

- Tell students that they are starring in a segment of "TheMixture Lab" show.
- Ask each group to present one of theirmixture recipes to the class.
- Have students stand in frontof one of the materials stations, and give each group aclean container and spoon to use for their recipedemonstration. Each group should tell the class the name of their mixture and the ingredients used.
- Groups shouldthen demonstrate making their mixture to the class andfinish by revealing the type of mixture the recipe created.

Home work

Create a cookbook of mixture recipes that is divided into three sections: homogeneous, heterogeneous, and suspension. You should think about materials they might have at home or at school that they could use to create your mixtures. You should define the type of mixture at the beginning of each section and then write 3 recipes for each mixture.