**Home Based Experiments**

1. Egg + Salt + Water. Use a glass that can fit an egg. Place some water in the glass and put the egg in it. Add some salt to the water making sure that the added salt is dissolve. Observe what happens to the egg. (You can also remove the egg and add salt to water and dissolve it and place the egg back to the mixture). What happened to the egg before and after addition of salt?

2. Soda + Bleach. Add some amount of soda (dark one is preferred) in a disposable transparent container (like plastic cup). Once the soda is in the container, add small amount of bleach (little by little) and see what happened to the resulting mixture. (Don’t drink the mixture and dispose mixture properly in the sink).

3. Soda in Pan. Pour some amount of soda (preferably regular soda not Diet of Zero) in a pan. Heat it until all liquid component has evaporated. What is the one that remain in the pan? (Note: Please use small amount of soda as removing the remaining liquid is sometimes tedious especially if get burned.)

4. Soda + Milk. Pour some soda in an empty bottled container (about 3/4 of the container) or use the soda size found in vending machine (remove about 1/4 of the soda). Pour some milk to the container (leave some space). Leave for a day. Observe what happened.

5. Soda + Egg. Pour some soda in a container that can fit an egg. Add the egg (make sure egg is soak in the soda). After a week, recover the egg. Compare it with an egg that was never soak in soda. Break both eggs and compare their consistency. (You can use vinegar instead of soda in doing this experiment.

6. Soda + Rusted Coins. Soak some rusted coins in soda. Observed what happen to the coin as days go by. What happened?

7. Soda cans in pail. Pour some water in pail (timba). Put the different soda in can in the pail. Observe what happen to the diet soda (or Coke Zero) and compared it with the regular soda. What did you observe? Why?

8, Soda + Mentos. Please do this in an open area. Put the soda in a steady place. Slightly add Mentos to the soda. How did the fountain formed? (This will be messy. The more Mentos , the more messirer the reaction will be)

9. Volcano eruption (Different variation)

You can mix baking soda with vinegar and observed what happened. You can also use a balloon to measure the volume of gas produced from the reaction of vinegar or soda with baking soda. You can vary the amount of material while keeping the other amount fixed to determined the amount of gas produced.

10.Balloon barbeque. Inflate a balloon. Put Vaseline oil or lard to a barbeque stick and slowly push it through the balloon. How is this possible?

11. Color transfer. Put two different food coloring in a container. Soak one end of the soft paper (tissue paper, paper towel) in the container with food color. Put the other end of the paper in an empty container. Watch what happerns? Red + Yellow = orange, Blue + Yellow = Green, Red + Blue = Violet

12. Use some flower (preferably white rose) or vegetable cutouts (celery or cabbage). Put some dye or food color in a container and place the flower or vegetables. Observe what happen after some time. How did it happen?

13. Color density, In a container mix the following: honey, dishwashing liquid, syrup and vegetable oil. In another setup with food colors, prepare sugar solutions of different concentration (different amount of sugar dissolved in water). Each solution should be added with different color. Place all solutions in one container. Which is the one in the lowest layer and the one in the highest layer?

14. Observe any fruits that are initially unripe (green banana, mango or avocado) and when they get ripened (yellow banana, mango or avocado). How are the fruits the same or different after ripening?

15. Using Betadine, add a drop of it in the following samples: bread, biscuit, cheese. A blue color will be observed if starch is present. You can also use unripe vs ripened fruits. Will there be a difference in the results?

16. Slice apple, potato and avocado. What happened to them after sometime? Why did it happen? Find ways to prevent it from happening.

Cooking and other stuff

Ask your student to think or answer the following:

1. Bigas to kanin – Are they different?
2. Frying fish, meat, and egg.- What happened?
3. Why does egg instead of getting soft get hard when boiled or fried?
4. Why does shrimp (hipon) become orange when boiled?
5. What is the use of carburo in ripening mango?
6. Why is papaya used to tenderize meat? Why is pressure cooker also used in tenderizing meat?

I will post materials in my webpage: <https://projectchemunity.weebly.com/>