

GIDGEE GADGETS LESSON -- TEACHER INFORMATION

I spent time this past summer browsing on the internet and reading teacher comments on Twitter. One of my favorite things is to watch TedTalk videos. I kept coming across ideas that what we teach students will be obsolete in 40 years, many future careers have not been invented, how fast knowledge doubles, advances in artificial intelligence, brain research, etc. So, what's a teacher to teach? Or more importantly, **what is it that students must be able to know and do to thrive in a future world full of unknowns?** You may have additional thoughts but some of mine are students must be literate, be adaptive, be problem solvers, be able to think-outside-of-the-box, use technology, communicate effectively with others, work with others, and re-invent themselves in the workplace. Of course, being a family and consumer sciences (FACS) teacher, I add more things like students need to be able build solid relationships and families, raise children well, manage resources, choose healthy foods, etc.

Then, for the first time in my long career, my school adopted a partial block schedule with the first 2 days of the school year being block days. Students need to have positive experiences so they want to come back the next day plus I didn't want to bore them. The play dough lab was one I wanted them to do but we were not starting with child development lessons.

So, I wrote the Gidgee Gadget lesson. I made up the word "gidgee" and then worried if it meant something not intended, so I looked it up www.dictionary.com and whew, I was okay! A gidgee is a tree in Australia! Then I started writing. (The recipe is not mine.) I tried my new lesson with 5 classes and found it got better each time. (To make small groups, I had students line up across the back of the room according to their birthday and then divided them up.) I have revised the lesson. I still don't know how much time to allot each section and I have not yet done the lesson using the final question writing part. If you have ideas for revisions, let me know.

Objectives

The students shall be able to:

- Have fun
- Get hands-on lab experience
- Read a recipe and follow it
- Talk to each other and work together
- Make decisions and do critical thinking
- Think about their future

Additional questions:

If you were to do this again, would you use play dough? Would a different material be more suitable? Why or why not?

Is it important to learn to work with other people? Why or why not?

Was it difficult to answer these questions as a group? Why or why not?

What did you learn from doing this?

This lesson is new. How can it be improved?

GIDGEE GADGETS

This is period number _____.

Everyone in your group is to write their first and last name below.

You are growing up in a world that is changing very fast. You have the internet. Artificial Intelligence is advancing. Things keep changing. Knowledge doubles in 12 months and maybe soon will double in 12 hours. Much knowledge will be obsolete in 40 years. Experts say many of you will have careers that have not yet been invented. **So what does a person need to know and be able to do, to get ready for a lifetime of such unknowns?**

Discuss this with your group and write notes below. Expect to share your ideas with the rest of the class.

Nobody knows what **Gidgee Gadgets** are (I made up the name) but your group is about to invent some. You will have to think creatively and work together to solve a problem. Some things will require you to carefully follow directions but other things are up to your imagination. Of course you will have to clean up after yourselves!

Here we go!....

Step 1: Make play dough.

Watch the teacher demonstrate how to make playdough. Work with your group to make a batch of your own. Use the following recipe.

Kool-Aid Play Dough

1 cup flour
¼ cup salt
1 packet Kool-Aid
⅔ cup water * You will end up using between ½ and ⅔ cup.
1 Tbsp oil

1. Mix the flour, the salt, and the Kool-Aid together.
2. Boil the water.
3. Add the oil to the water.

4. Pour SOME of the water into the dry ingredients and mix with a spoon. Keep adding water and work the dough until the color is uniform and feels like play dough. (If the dough is too soft, add a little more flour.)

Notes:

*Don't feel like you need to use the full $\frac{2}{3}$ Cup water. The amount you'll use will be between $\frac{1}{2}$ and $\frac{2}{3}$ of a cup. Store the play dough in an airtight bag if you wish to use it again.

Wash dishes and clean up your kitchen.

Step 2: Read the requirements below. Use your play dough to solve the problems. Make the objects and save them so we can see them later. (Do not wad up your play dough and use it over and over!) You have ____ minutes.

- a. Make an object suitable for holding liquids.
- b. Make an object suitable for separating solid objects from liquids.
- c. Make one of your objects as lightweight as you can.
- d. Make one of your objects able to roll down an incline plane.
- e. If you have time, make your objects look as interesting or as unique as you can.

Step 3: Finish and clean up.

Get a paper plate. Write your names and period number on it. Put your play dough objects on the plate along with any extra play dough. Put this paper under your plate and place the plate where the teacher says so it can dry.

Wipe play dough crumbs into the trash can from your table and chairs. Sweep the floor or wipe with a damp paper towel to pick up crumbs. Use a damp cloth to wipe the table. Wash your hands.

Step 4: Quick answers.....Answer these questions together as a group.

1. How many objects did you make? Did your group make objects that fulfilled **all** of the requirements?

2. What was the point of this lesson?

3. If you are expected to make a creative project, should teachers grade it? Why or why not? If so, how? What should their criteria/rubric be like?
