My Dream Restaurant Lesson Plan for Homeschool

Overview

Raddish is designed by a dedicated team of teachers and chefs who believe the kitchen classroom is the tastiest place to learn. We love watching learning come alive when kids mix math, stir science, and taste culture!

Paired with the materials found in you're My Dream Restaurant box, this lesson plan divides your box into 4 30-90 minute lessons you can use and adapt to support your homeschool study, pre-k – middle school. Depending on your timeframe and child's age and engagement, these can be taught together or separated for a longer lesson. Please refer to the curriculum provided in your box: recipe guides, activity cards, skill card, and introduction card. Happy cooking! Happy learning!

Lesson 1: Cereal Milk Panna Cotta & Gelatin Science Experiments

Learning Outcomes

- Students will learn what gelatin is and how it works.
- Students will experiment with gelatin in various ways.
- Students will measure, mix and develop patience for making gelatin.
- Students will hypothesize and choose variables in the experiment Jumping Gelatin.
- Students will learn about static electricity
- Students will learn how to prepare a delicious desert using gelatin and their morning cereal.

Experiment One: Foamy Popping Gelatin

Materials

- Gelatin sheet or box of Jell-O
- If using a gelatin sheet, a few drops of food coloring, natural food die, or liquid water color (not necessary if using flavored J-ello)
- ½ - 1 cup of baking soda
- White vinegar
- Containers to make gelatin in, such as plastic cups, ice cube tray, small bowls.

- A tray or container that is wide and deep like a 9X13 glass lasagna dish.
- Cereal Milk Panna Cotta recipe guide. See ingredient spotlight for description of what gelatin is and how it works.

Introduction

a. Ask students to tell you everything that they know about Jell-O. Prompt them to use descriptive words like jiggle or bouncy. Do they know how it tastes? How it's made? The texture?
b. Read the gelatin instructions and gather the necessary ingredients including baking soda and coloring if using. Remind all Rad-Kids about safety around boiling water. Let students know that they will not be eating this creation.
c. Have students brainstorm why they think you are adding baking soda to the mixture?
d. Make the gelatin or Jell-o according to the package directions but add ½ -1 cup of baking soda. All of the baking soda may not dissolve, making it a saturated solution. A *solution* forms when a *solute* (baking soda) dissolves in a *solvent*, (water) which means the solute breaks apart and disperses equally throughout the solvent. A *saturated solution* is made by dissolving as much solute as possible inti a solvent.
e. Pour gelatin mixture into containers and put in fridge to set. Now is a great time to make your Cereal Milk Panna Cotta!

Foamy Popping Gelatin in Action

a. Remove Gelatin from containers. Dip bottom of container briefly into warm water to loosen, tip out mold into a wide deep tray. You may want to put down a plastic table cloth and have little ones wear a smock or apron.
b. Pour vinegar over the gelatin. Start with a little vinegar. What happens? Try pushing down on the gelatin or squishing the gelatin through your fingers. Pour on a lot of vinegar (1/2-1 cup) what happens now?
c. How is this different than your usual Jell-O. What did adding the baking soda do?

Experiment Two: Jumping Gelatin
Materials

- Package of unflavored gelatin powder
- Balloon
- Plate
- Wool scarf or sweater or blanket, or your head of hair.

Jump Right in!

a. Pour gelatin powder onto plate. Give the plate a shake to spread it around.
b. Blow up balloon and tie it closed.

c. Hold the balloon close (about 1 inch) to the gelatin without touching it. What happens?
d. Rub the balloon on the wool or your hair for about 10 seconds. Now hold it about 1 inch above the gelatin. What happens? Move the balloon a little higher from the gelatin what happens now?
e. Why did this happen? When you rubbed the balloon on the wool you charged the balloon with *static electricity*. Static electricity is the buildup of an electrical charge on the surface of an object. It's called "static" because the charges remain in one area for a while rather than moving or "flowing" to another area. When the charged balloon was brought near the gelatin its surface becomes oppositely charged and opposites attract making the gelatin jump.
f. What are your variables? In an experiment, variables are things that change to create a different result. Now, change one variable by using a different surface to rub the balloon on (cotton or silk or paper) or the substance you have on your plate (sugar or flour or sand). Change each variable one at a time and record what happens.

Experiment Three- Which fruits can ruin your gelatin desert?
This is a fun, delicious science experiment that is appropriate for older students. It teaches about gelatin, protein, and enzymes. The experiment is clearly described with all necessary materials and extension steps from Science Buddies. Visit:

http://www.sciencebuddies.org/science-fair-projects/project_ideas/FoodSci_p004.shtml

Cereal Milk Panna Cotta

Kitchen Prep

a. Read the title page together.
b. Identify and gather ingredients.
c. Gather tools.
d. Discuss kitchen safety. You are using both the stove top and the oven in the recipe and working with hot liquids. (Visit Raddishkids.com/pages/safety)

Cook!

a. Ask children to read or describe each step.
b. Together, read the Ingredient Spotlight, The Gelatin Jiggle, on the recipe guide.
c. Give each child a turn measuring, stirring, ladling, etc.
d. Once the Cereal Milk Panna Cotta is ready, taste and share.

Lesson 2: Roasted Vegetable Quesadillas and Career Interviews
Activity Time: 90 minutes

Learning Outcomes

- Students will learn about what it takes to be a chef.
- Students will think about what job, or career they may want to pursue.
- Students will write interview questions for a professional in a possible career.
- Students will set up an appointment, interview and record answers to their questions.
- Students will practice introducing themselves.
- Students will write thank you letters/cards to their interviewee.
- Students will determine what first steps they might take in preparing for their career.
- Students will learn about two different kinds of Mexican cheese and use the Spanish word for cheese, *queso* (kay-so).

Materials

- Recipe guide and ingredients and tools listed within.
- Paper, pens, pencils.
- Chart paper and marker.
- Optional recording device.
- Recipe guide, ingredients and tools listed within.

1. Introduction

a. Have the students look at the recipe guide and read the Fun Bites on Becoming a Chef.
b. Discuss the journey that these restaurant chefs undertook.
c. Ask students to brainstorm possible future careers. What makes them excited about these jobs?
d. Make a K/W/L chart about this career. On large paper make three columns headed, What I already **K**now, What I **W**ant to Know, What I have **L**earned. Fill in the columns throughout the lesson, starting with the K column.
e. What would you like to know about this career? Just ideas in the W column. Then, create a set of interview questions for a professional from your chosen career. See examples below.

What I **K**now	What I **W**ant to know	What I **L**earned

2. Prepare for your interview

a. You will be interviewing someone to learn more about their career. Think about and write down your introduction. The person you are interviewing is going to want to know who you are and why you are interested in their career. Use your K part of the KWL chart to help you.
b. Locate the professional. If you aren't sure about your career, consider a local firefighter, family doctor, farmer at the farmer's market, teacher, mail carrier, etc to interview. Write them an email, a letter or call them to ask if you may schedule an appointment for an informational interview.
c. Write down the time and place of your interview. Bring a pen, pencil, or recording device to record the answers to your questions.
d. After your interview, complete your L column for What I Have Learned.
e. Write a thank you email or card to the person that you interviewed.
f. Are there any first steps that you can take personally to start the journey to pursue your chosen career path?

3. Kitchen Prep

a. Read the title page together.
b. Identify and gather ingredients.
c. Gather tools.
d. Practice saying the Spanish word for cheese, queso (kay-so) and pronouncing the two kinds of cheese in this recipe, queso panela (pa-nela) and queso cotija (koh-tee-hah)
e. Discuss kitchen safety, in particular oven safety. For example, parent says "Hot oven opening" and students reply "Oven open" and they freeze a safe distance away.

4. Prepare Roasted Vegetable Quesidillas

a. Ask children to read or describe each step.
b. Give each child a turn chopping, seasoning, and crumbling cheese etc.

c. Ask students if they can remember how to pronounce the cheese names in Spanish? Practice together as you are adding the ingredients to the recipe.
d. Taste and share your quesadillas!
e. Have students share what they learned about their chosen career.

Lesson 3: Seasonal Couscous Salad and Zillij Art!
Activity time: 90 minutes

Learning Outcomes

- Students will learn about what *zillij* art. (*Zillij* is terra cotta tile work covered with enamel in the form of chips set into plaster. It is one of the main characteristics of Moroccan architecture. It consists of geometrical mosaics made of ceramic used mainly as an ornament for walls, ceilings, fountains, floors, pools, tables, etc. Zillij is an Islamic art that is based on learning, discipline and faith. Its purpose is said to be decoration that inspires the viewer into a meditative reflection.)
- Students will learn and practice the name and form of simple and complex geometric shapes. For example, triangle, square, hexagon, trapezoid.
- Students will create a colorful piece of art using geometric shapes in the zillij style of Morocco.
- Students may create watercolor paint using turmeric.
- Students may learn that turmeric is an acid/base indicator.
- Students will learn about couscous. Read the Ingredient Spotlight on the Seasonal Couscous Salad recipe guide.

Materials

- Recipe guide, ingredients and tools listed within.
- Optional- Turmeric, lemon juice, baking soda- to make watercolor.
- Paper
- Ruler
- Glue
- Geometric shapes cut out of paper or cardboard or educational shape blocks if you have them. (Melissa and Doug, Lakeshore Learning, and Discount School Supply all sell versions) For example, triangle, square, hexagon, trapezoid.
- Crayons, markers, or watercolor.

1. Introduction

a. Introduce the lesson by having students look at examples of zillij on the computer or library books on Morocco.
b. Ask students what they notice about the zillij and the mosaics? What shapes are used? How are the shapes used? What colors are shown?
c. Show students the pattern blocks or cut out geometric shapes. Ask students to name the shapes, describe them (number of sides, points etc.)
d. Have students freely investigate and play with the shapes for a few minutes. Then ask them some questions like how they can fit the shapes together or what kind of patterns can they make?

2. Create a Zillij

a. Older students can look at zillij patterns online and find inspiration to create symmetrical designs using a ruler and pencil. Or create a stencil of a shape on cardboard and then trace and shift it around to create a pattern.
b. Younger students may use cut out shapes and glue them into a pattern that they like.
c. Color in the shapes creating a pleasing pattern.
d. You can create watercolor paint using Turmeric, a common spice with amazing health benefits. Turmeric is the yellow powdered spice from the cous cous recipe. Mix 3 Tablespoons (T) of turmeric with 6 T of warm water. Stir until dissolved. You will have a pale yellow watercolor. Try separating out 2 T of that mixture and adding 1 T of baking soda. What happens? (It should turn bright red). Try separating out another 2 T of the mixture and adding 1 T of lemon juice (it should turn brighter yellow) Turmeric is an acid/base indicator.
e. Allow your watercolor to dry. Give your piece of art a title.

3. Kitchen Prep

a. Read the title page together.
b. Identify and gather ingredients.
c. Gather tools.
d. Discuss kitchen safety. (Visit Raddishkids.com/pages/safety) Create kitchen rules together. Ex. No Running, Oven Safety, Knife Safety

4. Prepare Couscous

a. Ask children to read or describe each step.
b. Give each child a turn cutting, measuring, mixing, etc.

5. Gallery Walk and Seasonal Couscous Salad

a. Once the couscous is ready taste and share!
b. After dinner have the students share their artwork. What is the title of the work? What shapes did they use? Have other members of the family share how the art makes them feel, and if they see any patterns in it.

Lesson 4: Setting the Table and Table Setting Math
Activity time: 30 minutes

Learning Outcomes:

- Students will learn how to properly set the table at a restaurant or at home.
- Students will practice setting the table.
- Students will count, add, multiply and create projections, depending on age and ability.
- Students will practice left and right, above, below and beside.
- Students will make a simple graph to aid in solving math problems.
- Students will be encouraged to use drawings, tally marks, or other written math systems to show their mental processes of figuring out math problems.

Materials:

- Setting the Table Skill Card
- Paper, pencil
- Knife, salad fork, dinner fork, spoon, dinner plate, bread plate, drink cup, napkin.

1. Set the Table

a. Have students look at the picture on the Setting the Table Skill Card and have them recreate it on a table using the above materials.
b. Ask them to double check their work when they are done. If there is something out of place give them a clue. Such as "you have one too many things on the right." Or "one item is out of place."
c. Make a game out of asking them quantitative related questions about this one place setting. Such as:
d. How many plates are there?
    1. How many forks?
    2. How many circular things?
    3. How many pieces of silverware/cutlery?
    4. How many forks to the left of the dinner plate?
    5. What is above the knife and spoon?
    6. What is beside the napkin?
    7. How many pieces in the place setting all together?
    8. How many pieces of silverware would there be if there was no salad served? Etc.
e. Create a table to graph data. Using the paper, pencil and a ruler create a simple table with 5 columns and 8 rows. Fill in the headings as below. Fill in the number of

people depending on the age of the students. Younger students 1, 2, 3, 4, 5. Older Students 1, 2, 5, 10, 25, 100, 263.

f. Have students fill in the table. Let students use the real life Table Setting in front of them to help count. Help younger students keep track. Encourage them to use scratch paper to keep track of their counting, or use symbolic drawing to solve the problem. Encourage older students to look for patterns and explain their mathematical thinking. The answer for 263 people is as follows 263 X 1Cups= 263, 263 X 2 plates=526, 263 X 4 cutlery=1052, All togetherL 263 cups + 263 napkins + 526 plates + 1052 cutlery= 2104 items. Students may come to this answer many different ways.

# People	# Cups	# Plates	#Cutlery	#All together
1				
2				

2. Ready, set, Set the Table

a. Have the students use their completed chart to calculate, count and set the table for your family dinner!

Bonus!!!!

Origami Napkins

Check out this link for 28 pictorial directions for creating fun and seasonal napkin folds.

http://www.buzzfeed.com/peggy/28-creative-napkin-folding-techniques-for-every-oc#q4itec