



Food is Art 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 your Food is Art box, this lesson plan divides your box into 4 45-90 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: Cucumber Boats and The Science of Sink or Float

Activity Time: 60 minutes

Learning Outcomes

- Students will discover that some things float and some things sink.
- Students will make and test predictions.
- Younger students will experiment with the idea of sink and float while washing ingredients for the Cucumber Boat recipe.
- Older students will learn about mass, volume and density.
- Older students will learn about Archimedes and his principle.
- Both younger and older students will experiment and share their findings.
- Students will make Cucumber Boats.

Materials

- Recipe guide, ingredients, and tools listed within.
- Chart paper and markers for brainstorm.



Younger Students:

- Sink or Float Worksheet (included)
- Pencil for recording results
- Ingredients from the recipe- lemon, garlic, can of chickpeas, tomato, and cucumber
- Bowl of water

Older Students:

- Video on You tube (3:00)- “How taking a bath led to Archimedes’ Principle”
<https://www.youtube.com/watch?v=ijj58xD5fDI>
- Kitchen scale
- Paper and pencil for recording results
- Pie plate
- Glass of water
- Small object that will float, such as a block of wood

1. Introduction

- a. Brainstorm a list of things that float. Then, brainstorm a list of things that sink. Have students review the lists. What makes these things sink or float? What trait about each item makes them behave that way?

2. Experiment

Sink or Float -- Younger Students (this is perfect to do while you are making the cucumber boats)

- a. Provide students with the Cucumber Boats Recipe Guide. Have them collect the ingredients.
- b. Tell them that you would appreciate their help in washing the lemon, tomatoes, garlic, chickpeas and cucumber.
- c. Say “Hey, I wonder whether these things will sink or float? What do you think?”
- d. Show them the Sink or Float worksheet and help them to make predictions to test. Do all of the predictions first, before testing anything.
- e. Set up a bowl of water either in the sink or at a table on a towel, to catch spills.
- f. Test each item and record the result. Were your predictions correct? What do the items that float/sink have in common?
- g. In the extra two rows of the worksheet have the student choose one thing that they think will sink and one thing that they think will float. Then test it. Were they correct?
- h. Now you have clean veggies to make the Cucumber Boats!

Sink or Float -- Older Students



- a. Why do boats float on the water? How do certain animals stay afloat? To answer these questions you need to know about buoyancy. Once you understand this concept you can explain why some things float and other things sink. To understand buoyancy, you first need to understand the terms, **mass**, **volume**, and **density**.

Mass

Everything is made up of matter. You are made up of matter. A table is made up of matter etc. Exactly how much matter are you made up of? Your mass tells you. Mass is a measure of how much matter there is in something. What can you think of that has a large mass? A small mass?

Volume is a measure of exactly how much space you or any other object actually take up. What can you think of that takes up a lot of space, or has a large volume?

Density

When you consider mass and volume together, you can determine density. Density is how much matter is in a given volume. An object we consider dense like a brick, has a lot of matter crammed into a small space. An object that is less dense, such as a loaf of bread, has less mass in the same amount of space as the brick.

You can use mass and volume to find out the density of an object. Density can be calculated by dividing the mass of an object by its volume.

$$\text{Density} = \frac{\text{Mass}}{\text{Volume}}$$

- b. Watch the video: “How Taking a Bath led to Archimedes Principle”
<https://www.youtube.com/watch?v=ijj58xD5fDI>
- c. Discuss how Archimedes uses mass, volume and density to figure out buoyancy. Here’s what Archimedes figured out:
- Objects more dense than water will sink.
 - Objects less dense than water will float.
 - Objects of the same density as water will remain suspended in water. This state is referred to as neutral density.
- d. Experiment
- Gather your equipment:
 - Kitchen scale
 - Paper and pencil for recording results
 - Pie plate



- Glass of water
- Small object that will float- like a block of wood
- Weigh the block of wood on the scale and record the weight.
- Weigh the pie pan on the scale and record the weight.
- Place the pie pan on the counter right next to the scale. Place the glass of water filled to the brim in the pie pan. Place the wood block in the glass. Some of the water will spill over.
- Carefully remove the glass without spilling anymore water. Now you just have a pan with spilled water.
- Place the pie pan with the spilled water back on the scale and record the weight.
- By subtracting the weight of the pie pan from the weight of the pan with the spilled water you should get the weight of the water spilled alone.
- If you were careful the weight of the spilled water should weigh exactly the same as the wood block you measured at the beginning!

You have just proven **Archimedes principle: any object will float if it displaces as much water as it weighs.** This is true for any object – even a giant metal container ship!

3. Kitchen Prep

- a. Read the Cucumber Boat recipe card together.
- b. Identify and gather ingredients.
- c. Gather tools.
- d. Discuss kitchen safety. Specifically, knife safety (Visit Raddishkids.com/pages/safety)

4. Prepare Cucumber Boats!

- a. Ask children to read or describe each step.
- b. Together, follow the steps in the recipe.
- c. When the Cucumber Boats are ready, eat, taste and share!

Discussion snacking Bonus Table Talk: If you could travel in a boat anywhere in the world, where would you travel? What kind of a boat would you want?



Lesson 2: Doodle Noodle Bowls and Interpreting Art and Creating Stories

Activity Time: 90 minutes

Learning Outcomes

- Students will learn the term what it means to “interpret” something, and experience that there can be many possible “right” answers to the same question.
- Younger students will have an opportunity to view art and create a communal story.
- Students will learn and practice using story sequencing.
- Older students will write a story inspired by their interpretation of a picture.
- Students will read aloud, illustrate and/or act out their art inspired stories.
- Students will build their own Doodle Noodle Bowl to create edible abstract art.

Materials

- Recipe guide, ingredients, and tools listed within.
- Paper and pencil for doodle game

Younger Students

- Talking stick (any prop that gets passed around so students know whose turn it is to speak.)
- Art to provide inspiration. For example:
 - the book The Mysteries of Harris Burdick by Chris Van Allsburg
 - or the website:
http://hrsbstaff.ednet.ns.ca/davidc/6c_files/documents/mysteries/divmysteries.htm
- Optional
 - Paper for writing/transcribing communal story
 - Paper and art materials for further illustrating the story
 - Space and or costumes for story to be acted out

Older Students

- Art to provide inspiration. For example:
 - the book The Mysteries of Harris Burdick by Chris Van Allsburg
 - or the website:
http://hrsbstaff.ednet.ns.ca/davidc/6c_files/documents/mysteries/divmysteries.htm
- Paper or computer for writing their story
- Story Map Worksheet (provided)
- Optional: art materials for further illustrating the story



I. Introduction

Younger Students

- a. Read together the Fun Bites Delicious Doodles section of the Recipe Guide. Play the Doodle Game described there. What does it mean to interpret?
 - To explain the meaning of something
 - To understand something in a specified way
 - To perform something (a song, dance) in a way that shows your own thoughts and feelings about it.
- b. Ask students if they've ever looked at a photograph or a painting and wondered what was happening in it? (You can provide an example for them to look at if they don't have one in mind.) Have they ever imagined:
 - Who the people are in it? (Magicians? Chefs?)
 - Or what the environment is? (In a castle? On a cliff in England?)
 - Or what might have happened just before, or just after the scene pictured?
- c. Show the students the book [The Mysteries of Harris Burdick](#) by Chris Van Allsburg, or if you can't find the book use the website provided above. Explain the mystery behind the images. The information is found in the introduction of the book or at the top of the website. What do the students think happened to Harris Burdick? Why didn't he return with the stories that accompany the drawings? After the students share their ideas, prompt them to include a beginning, middle and end to their story. This is called a sequence. Be sure to also determine where the action took place (setting), and who was involved (characters).
- d. Look through the book or website and examine the pictures and their captions. On the website you need to click on the thumbnail to get a bigger picture and to see the caption.
- e. Let the students know that they will be able to choose the picture that most captures their imagination and make up a story about it.

2. Activity

Younger Students -- Communal Storytelling

- a. Have student(s) choose the picture they want to tell a story about.
- b. Show them the magical talking stick (any prop will do). Explain that only the person holding the talking stick will be allowed to talk. When they are done telling their part of the story they will pass it to the next person in the circle. If you have a small group you may pass the stick back and forth.
- c. This activity works best if the story is begun in a clear engaging way so it is best to start it yourself. For example with the image entitled Archie Smith Boy Wonder, you may begin: *"Once upon a time, there was a boy named Archie Smith. On the outside he*



- seemed like a normal little boy, but after his sixth birthday strange things began to happen to him”... Then, pass the talking stick.*
- d. Young children tend to make wild leaps in their story telling. You want to encourage a wild imagination but teach them to fit their idea into the previous ones voiced by the other students. This helps build the skill of sequencing.
 - e. Intervene if the idea seems unrelated. Remind them of what the previous storyteller said and encourage them to add only the next step before passing on the talking stick.
 - f. Periodically, stop and recount what has happened so far to keep the students on track and again reinforce sequencing.
 - g. Younger students also have a tendency to want to bring a story to its conclusion very quickly.. “And he woke up. The end!” In this case, encourage them to think again and add detail to what the last person said to stretch the story further.
 - h. After you have finished the story, debrief the students. What was hard for them about making the story? What was fun? Reinforce that they just created a story together as a community. And this story was inspired from a tiny seed of an idea from Chris Van Allsburg.
 - i. Extension Ideas:
 - i. Have students illustrate the story they just made up. Maybe a particular part from the middle or the end. (Again teaching sequencing.)
 - ii. Have students act out the story.
 - iii. Have students choose another picture and work in small groups to create another story.

Older Students – Story Writing

- a. Have student(s) choose the picture they want to tell a story about.
- b. Provide them with the Story Mapping Worksheet (included)
- c. Have them complete the worksheet. Provide assistance as necessary.
- d. Ask students to write their story. Provide help as necessary. Refer back to the tips for younger students as they may be helpful here as well.
- e. Depending on age and skill level of students you may want to introduce feedback, editing and rewrite into the activity.
- f. Extension Ideas:
 - i. Have students illustrate the story they just made up. Maybe a particular part from the middle or the end. (Again teaching sequencing.)
 - ii. Invite students read their story aloud for their family.
 - iii. Have students act out the story.
 - iv. Encourage students choose another picture to create another story.

3. Kitchen Prep

- a. Read the title page together.



- b. Identify and gather ingredients and tools.
- c. Discuss kitchen safety, in particular stove top safety. For example, have students keep their elbows high and handles turned in when stirring on the stove top.

4. Prepare Doodle Noodle Bowl

- a. Ask children to read or describe each step.
- b. Give each child a turn cutting, measuring, mixing, etc.
- c. Create your Doodle Noodle Bowl. If someone saw the art in your bowl what could they interpret about you?

5. Doodle Noodle Bowl Interpreted!

- a. Once everything is assembled, interpret your dinner art for your family! Why did you choose certain toppings? What does it say about your mood that you assembled them in that way? Why do you like to eat certain colored foods more than others?
- b. Eat, taste and share!

Lesson 3: Painted Pastry Fruit Tart and Gaudi Nature Art!

Activity time: 60 minutes

Learning Outcomes

- Students will learn about patterns, concentric circles and basic shapes.
- Students will learn what a *trencadis* is.
- Students will learn about the architecture of Antoni Gaudi.
- Students will create collages in the style of Antoni Gaudi.
- Students will make and decorate a Painted Pastry Fruit Tart using an artistic eye inspired by color and shape.

Materials

- Recipe guide and ingredients and tools listed within.
- Optional:
 - Books about Gaudi from the library.
 - Map of Spain or Barcelona
- You tube video (3:53) – “Viking Oceans: Antoni Gaudi- Barcelona’s Master of Sacred Architecture” -- Describes his use of nature in architecture
https://www.youtube.com/watch?v=6W_ICdVISXk
- Pictures of food, plants, animals from assorted media such as:
 - Grocery store flyers





- Magazines
- Stickers
- Draw yourself
- Glue
- Scissors
- Paper with basic blackline shape outline. For example, outline of a starfish, house, tree, mushroom, heart, etc.

1. Introduction

- a. Ask students if they have ever heard of the Spanish architect Antoni Gaudi? If they have, what can they share about him? If not watch the video about him on YouTube or look at images online.
- b. Ask the students what they noticed watching the video. How did he use nature in his buildings? Why do you think he did? The style of mosaic art that Gaudi made was called *trencadis*. This form used broken plates and roof tiles. Gaudi first used this style in Park Guell. Look in a book or online at images of buildings and sculpture he created there. What patterns do students notice? Patterns could include shape, color, size, alternating, or symmetry.
- c. Let students know that they will be creating a *trencadis* image using paper instead of tiles.



2. Art Inspired by Nature

- a. Have students cut out small pictures of fruit, vegetable, leaves, flowers, shells, animals etc. For younger students you may want to pre-cut the pictures or use nature stickers.



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Kitchen. Table. Family.

- b. Have each student decide on a shape that they want to decorate in the *trencadis* style. Either have students draw a simple black outline, draw it yourself, or look for simple clip art images and print them out large computer paper.
- c. Have students arrange their images in the outlined drawing before gluing them down. Remind them to think about patterns.
- d. Once arranged have students glue down their images and display their art.



3. Kitchen Prep

- a. Read the title page together.
- b. Identify and gather ingredients and tools.
- c. Discuss kitchen safety, in particular oven and knife safety.

4. Prepare Painted Pastry Fruit Tart

- a. Ask children to read or describe each step.
- b. Give each child a turn measuring, timing, mixing, etc.
- c. Read together the Fun Bites: Fruit Tart Art on the Recipe Guide. Discuss the different shapes and patterns shown there. Point out the concentric circles (one circle inside the next getting smaller and smaller). What shapes or patterns might they want to create on their blank canvas?
- d. While children are cutting fruit to decorate, remind them of the patterns that they created with the *trencadis*. Suggest that they cut the fruit into different sizes and shapes to allow for variation when decorating.

5. Tart and Art Show

- a. Display the tart(s) and *trencadis* artwork. Invite family and friends to visit for a gallery opening. Have students describe their works of art, share what they learned about Antoni Gaudi, and explain the inspiration behind their tart decoration.
- b. Eat, taste and share!



Lesson 4: Still Life Studio and Photography Point of View

Activity time: 90 minutes

Learning Outcomes

- Students will learn what a still life art is.
- Students will create their own still life arrangement and capture it with pencil, paint or “film”.
- Students will learn about perspective.
- Students will practice taking different points of view: head-on, bird’s-eye view (from above), bug’s-eye view (from below), and zoom (close up).
- Students will compare and discuss how the different perspectives affect what they see and how it makes them feel.
- Students will create a gallery of their art to share with friends and family.

Materials

- Still Life Studio activity card and all the materials listed
- Camera or camera phone
- Internet- Google image search “still life paintings of food” provides some really great examples.

1. Introduction

- a. Are your students familiar with still life art? If so have them describe a favorite to the group. (Maybe Van Gogh’s *Sunflowers*) What makes it a still life?
- b. Share examples with students, either found in books or on the internet. Invite them to say the first thing they notice when they look at a particular picture. Why is their eye drawn there? How much of the picture is filled up with the item drawn? How much background? What is missing in a still life?
- c. If you could create your own still life what would your subject be? (flowers, food, pile of Lego, cars, dolls, pile of markers etc.)

2. Still Life Studio

- a. Read the Still Life Studio card together.
- b. Set the scene.
- c. Decide what method you are going to use to capture your still life; drawing, paint or with a camera.
- d. Create art!
- e. Extension:



- i. Use construction paper to make a matted frame in a contrasting color for your art.
- ii. Create a title for your work of art.
- iii. Practice your artist signature on a scrap piece of paper and then apply it to your finished still life.

3. Bird's-Eye View, Bug's-Eye View, and Zoom

With photographs, you can make people see things in ways that they have never seen before. You're used to looking at things head-on. Why not try another point of view?

Bird's-Eye View is taking the perspective or point of view of a bird. Where does a bird experience the world? What do you think things on the ground look like to a bird? How do you think you could use a camera to capture a picture the way a bird would see it?

- Get up high. With adult permission climb up on a chair.
- Check out the way things look from up there. Look through the viewfinder of the camera or at the screen.
- Pick something that you can see and take a picture of it.

Bug's-Eye View is taking the perspective or point of view of a tiny ant. Where does an ant experience the world? How do you think things look to an ant looking up? How do you think you could use a camera to capture a picture the way an ant would see it?

- Get down low. Crawl around on your hands and knees or lie down flat on your tummy to see things from below.
- Check out the way things look from down there. Look through the viewfinder of the camera or at the screen.
- Pick something that you can see and take a picture of it.

Zoom is taking a picture of your subject from very close. The best way to take a zoomed in picture is to actually move your body closer to the subject. This takes a clearer picture with more detail rather than using the zoom feature on your camera.

- Choose a subject.
- Get up really close to it. Using your eyes first decide what the most interesting thing about it is. For example, on a kitty cat it might be the pattern of its fur or on a banana it might be the sticker.
- Now look through the viewfinder of the camera or at the screen and zoom in on the most interesting part so that it fills up the screen.
- Take a picture of it.



4. Put it all together once you've looked at something from every angle, you're ready.

- Choose a subject.
- Shoot it from three different points of view.
 - Get up high and shoot down at it. Bird's-eye view.
 - Get down low and shoot up at it. Bug's-eye view.
 - Move in tight and shoot an interesting part of it. Zoom
- How do the three pictures compare? Do they tell different stories? Do they make you feel different ways? Which one do you like the best and why?

5. Picture Gallery

- a. Display your still life art and photography point of view pictures around the room.
- b. What order do you want people to look at them in? Do you want to give a guided tour of your gallery and explain the art to your visitors or allow them to explore on their own.
- c. Explain to your guests what a still life is, what bird's-eye view, bug's-eye view and zoom means.
- d. Invite your guests to tell you what they notice in your art and what a specific picture makes them think about or how does it make them feel.
- e. Recommend that your guests try taking pictures from different perspectives in the future and sharing their results with you.