

Bachelor of Education (Elementary) & Bachelor of Education (Secondary) STEM Lesson Plan

Lesson Title: Fraction Pizzeria Lesson # 5 Date: Feb 14, 2025
 Name: Marlee Tremblay Subject: Math Grade(s): 3

Rationale:

This lesson is one of the final activities in the unit designed for students to show what they have learned in the unit in a fun and creative way.

Core Competencies:

Communication	Thinking	Personal & Social
<ul style="list-style-type: none"> - Acquiring and presenting information in a unique way. 	<ul style="list-style-type: none"> - Designing and developing representations of their understanding. 	<ul style="list-style-type: none"> - Self-regulating themselves and taking ownership of their behavior and learning.

Big Ideas (Understand)

Fractions are a type of number that can represent quantities.

Learning Standards

(DO)	(KNOW)
Learning Standards - Curricular Competencies	Learning Standards - Content
<ul style="list-style-type: none"> • Using manipulatives to model mathematics in contextualized experiences. 	<ul style="list-style-type: none"> • Fractions parts are equal shares or equal-sized portions of a whole unit.

Instructional Objectives & Assessment

Instructional Objectives (students will be able to...)	Assessment
<ul style="list-style-type: none"> • Students will be able to create a visual representation that matches fractions given to them. 	<ul style="list-style-type: none"> • Observe how students are doing during the activity and whether they need extra help • Use questioning during the activity to assess understanding. • Review their final product in comparison to their order chit that was given for them to create.

Prerequisite Concepts and Skills:

Students will need to understand different fractions, with the highest denominator being 8.
 Students will need to be able to listen quietly to the teacher without disrupting the instructions.

Indigenous Connections/ First Peoples Principles of Learning:

Learning is holistic, reflexive, reflective, experiential and relational (Focused on connectedness, on reciprocal relationships and, a sense of place)

Universal Design for Learning (UDL):

- Using visuals, physical manipulatives, with verbal and written instructions. A digital option can also be added for those who benefit from digital tools.
- The use of small groups during work time and during class discussions

- Change this to culturally responsive fractions where students choose a food in their house that has toppings or can be divided.
- Implement brain breaks if the students need one on the day of the lesson.

Differentiate Instruction (DI):

- Precut the paper plate or put students in small groups where they can watch or get help from other students.
- Give the students easier/harder fractions or more/less fractions toppings on their pizza orders to display on their final product.
- Dividing the pizza into more or less pieces for the students to work with.
- For students with visual impairments, we can use larger manipulatives give them their own examples in front of them.
- Reiterate the importance of putting up your hand when you need help and that they teacher will gladly help their learning.
- Teachers will encourage ideas to be shared at appropriate times from all of the students, but for those who may struggle to want to share will call on them first when they are ready enough to share their thoughts or ideas, giving them a better sense of place and belonging in the class.

Materials and Resources

- Ruler
 - Pencil
 - Eraser
 - Paper plates
 - Glue sticks
 - White board and whiteboard markers
 - Scissors
 - Small pizza box or square piece of cardboard larger than the paper plate
 - A booklet that contains the following:
An order slip- has on it the instructions for how many slices the pizza will be cut into, how many toppings, what they are, and where they will go based on the fraction beside the topping
Colored paper with outlines of the toppings corresponding to the order slip for students to cut out and glue to their pizza.
- **Each pizza will have no more than 5 toppings**

Lesson Activities:

Teacher Activities	Student Activities	Time
Introduction (anticipatory set – “HOOK”): <ul style="list-style-type: none"> - Open the lesson by asking the kids who like pizza, and what they like to order. Or maybe why they do not like pizza Leave time here for a short class discussion. - Then ask the kids to compare their favourite pizza to classmates, friends or guardians in think-pair-share. - Then ask the students about what it must be like to work in a pizzeria with so many unique orders. Give some examples such as a cheese pizza with extra cheese on the whole thing, green 	<ul style="list-style-type: none"> - If they feel like sharing, they will put up their hand and share a favourite pizza creation that they have - Students will think-pair-share a different order of pizza that they have heard before - Students will share connections or ideas about what it might be like working at a Pizzeria and what they think it might be like making so many different orders in a day. Students can share if 	2-3 minutes 2 minutes 1-2 minutes

<ul style="list-style-type: none"> - Once the example is done, ask some helpers to hand out the booklets, while the teacher hands out the paper plates. - Remind the students that they need to check their pizza and order slip with the teacher or two peers before gluing their pizza onto the box or cardboard. - Ask if there are any questions before they begin the task. - Leave the visuals of different circles cut into different equal pieces on the board as well as the example. - Walk around the classroom to help and guide engagement. - Use the waterfall call back to regain students' attention to bring up any important questions or ideas that may arise or to remind students what they should be doing once they are all done. - Give the students time warnings of 10-, 5-, and 1-minute left so students are aware. - After the final one minute of activity time then allow for 5 minutes of cleanup time. 	<ul style="list-style-type: none"> - A few students will volunteer to hand out booklets and then help the teacher to do so. - Students will ask questions to clarify any misunderstandings before beginning the activity. - Students will begin the task and refer to the examples on the board or ask the teacher for help when they need it. - Students will participate in the callback and actively listen to the teacher. - Students are aware of the time left - Students will clean up their space. 	<p>2 minutes</p> <p>1 minute</p> <p>20-25 minutes</p> <p>1 minute</p> <p>5 minutes</p>
<p>Closure:</p> <ul style="list-style-type: none"> - Once the students are all done, they can glue their pizza into a small pizza box or onto a square cardboard "plate" piece and put their name on the final product. - They can hand them into the teacher and sit back in their space. - The teacher then can ask if they thought it was easy or hard to create this pizza and why? - Briefly remind students how this is one of many examples of how fractions are used in everyday life. - To wrap it up do a class vote where they raise their hand and ask how many people would want to get a job one day making pizzas versus how many do not. Record both on the board against the class population to get another fraction that shows how many students would want to be a pizza creator in the class as opposed to how many students to not. Showing the students once again how fractions are used every day. 	<ul style="list-style-type: none"> - After checking with the teacher or two peers, students will glue their pizza onto the inside of a pizza box or on top of a cardboard plate. - Students will share their ideas with the class if they choose to. - Students will participate in the class vote whether or not they would like to work at a pizzeria and see that their answers over the class total is also a representation of a fraction. 	<p>5 minutes</p> <p>3 minutes</p> <p>2 minutes</p>

Organizational Strategies:

- With the instructions and paper plate, there will also be topping sheets to cut out that correlate with each of the orders. For example, a pizza that only has pepperoni and spinach as a topping wouldn't have a pineapple topping sheet attached to it.
- Set up step by step visual instructions paired with the verbal instructions, then leave the visuals on the board.
- If students require technology, then set up everything organized and ready to go on their computer or tablet in a folder in advance.

Proactive, Positive Classroom Learning Environment Strategies:

- The teacher will move around the classroom and encourage the different learning while also helping students that may need more assistance.
- To get the classes attention, the teacher will say "Waterfall" and the students will raise their hand and make a "Shhhhhh" sound while they lower then and put their attention onto the teacher.
- The teacher will thank the students who are on task.
- Make behavior expectations clear before the activity begins- listening to instructions quietly and without distracting others, only speaking when called upon or during times where everyone is sharing, such as in the think pair share.
- The teacher needs to be excited and engaged in the teaching of this lesson to spark equal if not more interest in the students.
- Tell the students before the lesson begins that they can work in small groups if they can listen really well during the instructions and can stay on task while working.

Extensions:

- You could have students complete more than one and compare the different pizzas.
- You could cut these out of felt and turn them into a game that students play during math games or centers
- Use equivalent fractions such as $\frac{1}{2}$ of the pizza has peperoni rather than $\frac{4}{8}$
- Connect this with other real-life scenarios where you need to divide

Reflections (if necessary, continue on separate sheet):

I feel that this is an exciting and creative lesson for kids to participate in. I could see the cutting out of materials to be a potential thing that I may need to change in the future in case I have a class that struggles with cutting things out. I also can see myself wanting to change this into a class set that I can make out of felt that students can use and play with. I mentioned that in my extensions, but it wasn't until after I was done writing the lesson plan that I realized what a great idea it may be, but it would have to be over a break when I have enough time to do that much cutting. I feel like I may also rush the instructions out of excitement of doing the activity, so I need to remember to be thorough in explaining the steps and not rush that out of excitement. I do also feel that I may let the students all share a memory that they have with pizza, so maybe I would start the day with a storybook about food or pizza, then have them write in their books during writing practice about food or pizza. Then when it came to sharing, I could just ask for a few and remind them that we can read and share their entries later too.