Lesson Plan Template

Grade: kindergarten

Subject: math – geometry

Materials: clay, sticks

Technology Needed: none

Instructional Strategies:

- ☐ Direct instruction
- ☐ Guided practice
- ☐ Socratic Seminar
- ☐ Learning Centers
- ☐ Lecture
- ☐ Technology integration
- ☐ Other (list)
- ☐ Peer teaching/collaboration/ cooperative learning
- ☐ Visuals/Graphic organizers
- ☐ PBL
- ☐ Discussion/Debate
- ☐ Modeling

Guided Practices and Concrete Application:

- ☐ Large group activity
- ☐ Independent activity
- ☐ Pairing/collaboration
- ☐ Simulations/Scenarios
- ☐ Other (list)
- ☐ Hands-on
- ☐ Technology integration
- ☐ Imitation/Repeat/Mimic

Explain:

Standard(s)

K.G.3 - Identify shapes and solids (squares, circles, triangles, rectangles, cubes, and spheres) as two-dimensional or three-dimensional.

Objective(s)

By the end of the lesson's students will be able to show me that they know the three-dimensional shapes and their names by making them out of clay and sticks.

Bloom's Taxonomy Cognitive Level: create – students are designing and constructing their own 3D shapes with the given materials. They have free rein on what shapes the are choosing to create and how they are creating them.

Differentiation

Below Proficiency:

-I will have little poster cards showing 3D shapes made out of sticks and clay at each table. The students who are struggling may look at these shapes to help them through the lesson. I will also have a chart up with the number of edges and vertices each 3D shape has that they can reference. If they need additional help, I or another teacher can walk them through building one face/ 2D shape of the shape and ask them how they can make the rest of it, so it becomes 3D. Also, I could ask them to ask a neighbor for peer work on how to create their 3D shape. Lastly, I could try to give them the 3D shapes in the block form so they could feel it and touch it.

Above Proficiency:

-I will ask the students to see if they are able to make a bigger version of their shape they are making. Ex- if they are working on a cube, I would see if they could expand the cube without making it a new shape.
-I could also ask them to see if they are able to combine two of the shapes to make something else, like a house. They would do this by creating a cube and a square based pyramid.
-Challenge them to think about how they could create a cylinder with their clay and sticks and create it

Modalities/Learning Preferences:

-tactile- learners are doing the building of the 3D shapes themselves
-visual- students are using the poster cards or the chart on what the 3D shapes look like and they can reference them when they are creating their shapes. They are also creating the visual of these shapes

Classroom Management- (grouping(s), movement/transitions, etc.)

-The students will be at their community circle form lesson with Miss Harris
-I will call students by table group based on who is showing me they are ready to learn
-I will instruct the students to not touch the playdough or sticks once I set it on their table
-students are seated at their desk throughout lesson unless they need to walk up to the poster to see examples of the 3D shapes
-once the lesson is done, I will say something like "show me 10, show me 4, how do you know it's 4 or what makes 4? Okay, now it is time to clean up and go to our sit spots when you are done cleaning."
-I will ask the class to go back to the community circle and wait on their sit spots so we are able to have a few reflective questions
-they will be dismissed after for their snacks

Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)

-the students must be sitting at their spots at the tables
-the students must not touch the clay or sticks when I give it to them
-students must be patient and active listeners while I am instructing them how to make the vertices (balls of clay)
-students must participate when I am asking them the different 3D shapes
-students must keep a voice level 0 when I am talking, but when they are talking students may have a voice level of 2 (small group work, only your group can hear you)
-students must continue to make shapes after they are finished with their first one (students will be expected not to just build random things, they must be on task)
-students must clean up their areas when we are done
-students must show me 10 fingers when I ask "give me 10", and so on for the rest of the numbers I call
-students must clean their area of work before they move to community circle
-students must return to community circle once their area is cleaned up, I expect them to have whole body listening and raise their hands we are have our wrap up and group discussion

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Minutes	Procedures
	Set-up/Prep: -have the clay and sticks ready at their tables -have 3D shape charts at each table for them to reference if they need -have the reference poster up front for the students to refer to
	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) -Today students we are going to make 3D shapes! What do you think we are going to make these shapes out of? -What kinds of 3D shapes do we know? How do you know a _cube_ is a _cube_? -show them the materials
	Explain: (concepts, procedures, vocabulary, etc.) Vocabulary- three-dimensional (3D), cylinder, cube, rectangular prism, face, edge, vertices Procedure- -Okay learners we just went over reviewing our 3D shapes and how many vertices and edges each one has, so now we get to make our own 3D shapes. Can anyone think of materials we may use to make these figures? -I will state that when they sit down at their tables, it is not their job to touch the materials yet until I instruct them to do so -I will call off by table to their tables based on if they look like they are ready to learn -Each child will sit at the table spots -I will then ask, so class if we were to build a square based pyramid, how many sticks would we need? How many vertices would we need to make? -After I will instruct everyone to get their clay -Once everyone has their clay, I will show them the amount of clay that we need to make the first vertex for our sticks -Then I will say you grab this same amount of clay -Together we are going to roll it into a ball, does everyone see how I rolled this into a ball? -What 3D shape does our ball look like? How do we know that it makes a sphere? -Once we discuss that I will remind the students that everyone has a job of making the 3D shape that they choose -I will walk around and monitor them building their shapes -I will ask them questions like, “Why are you choosing to build your 3D shape that way?”, “What shape are you working on and how do you know it is that shape? What 2D shape did you have to build in order or make this 3D shape?” -If I notice a student struggling, I will remind students that there are guidance sheets available for them to use. I will also help guide a student if they are stuck with the activity -After about 7 minutes of student building their shapes, I will call out “Give me 10, give me…” -I will wait for student to show me all 10 fingers, I will ask them questions like “How do you know that was 7…” -Students will clean up when I instruct them and return to the community circle when they are done -I will ask the student to place all the sticks back into the center of their tables and gather all their clay and press it back into their containers. The clay will also go back into the center of the table -Once everyone is at the community circle, I expect them to have whole body listening and raise their hands we are have our wrap up and group discussion
	Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions) Reflective questions-“Learners, today you showed me how to make 3D shapes, what kinds of other materials do you think you could have used to make these shapes? What was the hardest part for you when you were making these shapes? When we look around the room, what are some objects that we see that are the same as the shapes we just made?
	Review (wrap up and transition to next activity): -Friends, lets go out our shapes that we learned today on this poster. Can you name the 3D shapes as I point to them on our poster?

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Formative Assessment: (linked to objectives) **Progress monitoring throughout lesson- clarifying questions, check-** **in strategies, etc.** -walking around watching my learners figure out how to make 3D shapes with the materials -asking my learners questions as they are building their shapes **Consideration for Back-up Plan:** -if the students are not understanding this concept, we will walk through how to build a shape together as a class -we will talk about how many edges the 3D shape has and how many vertices the 3D shape has -we will build one face of the shape and then figure out how to build the next section of it looking at our poster cards -If the whole lesson isn't working and students are confused on what we are doing, I will regather them at the community circle and we will discuss 3D shapes again and what makes up a 3D shape.	**Summative Assessment (linked back to objectives)** **End of lesson:** -none, just class review of their shapes and observing throughout the lesson **If applicable- overall unit, chapter, concept, etc.:** none

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):
This was my favorite lesson that I thought when I was in Miss Harris's classroom. I thought that I did a really good job on having movement around the classroom, holding the student's attention, creating motivation, and differentiating. For differentiating, it really helped the students to have the picture cards at what the shapes look like because I noticed a lot of students taking these to reference. The students in the classroom listened really well and responded to my attention getter of "give me 10" and voice levels 0. If I were to teach this lesson again, I would work more on my scaffolding of the lesson. It would have been helpful to focus more of the "we do" because when the students were first trying to make the clay balls and create shapes, a few of them were struggling at what to do. One thing I did that helped these students is to call attention to a student's work that had been done correctly to make the 3D shape. If this didn't work, I could have called the students back to my attention by using an attention getter and then redoing the "we do" scaffolding process. I think it is important for teachers to call back their students when they see that more than a few of them are struggling at what to do. I would definitely use this lesson again in my classroom because it gives the students a hands on learning activity for math and also takes them to the creating category on the blooms taxonomy.