

Math Lesson Plan 1

Grade: 1 st Grade		Subject: Mathematics	
Materials: Expo Marker, Student Workbooks, Pencil		Technology Needed: Computer, Projector, Smart Screen with Pen	
Instructional Strategies: <input type="checkbox"/> Direct instruction <input type="checkbox"/> Peer teaching/collaboration/ cooperative learning <input type="checkbox"/> Guided practice <input type="checkbox"/> Socratic Seminar <input type="checkbox"/> Visuals/Graphic organizers <input type="checkbox"/> Learning Centers <input type="checkbox"/> PBL <input type="checkbox"/> Lecture <input type="checkbox"/> Discussion/Debate <input type="checkbox"/> Technology integration <input type="checkbox"/> Modeling <input type="checkbox"/> Other (list)		Guided Practices and Concrete Application: <input type="checkbox"/> Large group activity <input type="checkbox"/> Hands-on <input type="checkbox"/> Independent activity <input type="checkbox"/> Technology integration <input type="checkbox"/> Pairing/collaboration <input type="checkbox"/> Imitation/Repeat/Mimic <input type="checkbox"/> Simulations/Scenarios <input type="checkbox"/> Other (list) Explain:	
Standard(s) 1.G.1 Distinguish between defining attributes versus non-defining attributes.		Differentiation Below Proficiency: Above Proficiency: Approaching/Emerging Proficiency: Modalities/Learning Preferences:	
Objective(s) By the end of this lesson, students will be able to identify triangles based on their attributes.			
Bloom's Taxonomy Cognitive Level:			
Classroom Management- (grouping(s), movement/transitions, etc.)		Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)	
Minutes	Procedures		
Set-up/Prep: <ul style="list-style-type: none"> • Have the slides and worksheets available on the computer. 			
Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) <ul style="list-style-type: none"> • Gather the students at their colored spots • “Students, we are going to transition to math. I need you to put all your materials away and join me up front at your colored dots.” • Access what they already know about shapes. • “I know that you have worked with your pattern blocks this past week. What shapes can you name?” • Call on students and have them share the shapes they know (i.e., triangles, circles, squares, rectangles, pentagon, hexagon, quadrilateral, etc.) DIAGNOSTIC ASSESSMENT Materials: white board and marker per student <ul style="list-style-type: none"> • Access prior knowledge of shapes by having students draw and 3-2-1 show different shapes. • Have the students gather their materials • “Walk to the back of the room and get your white board and marker and then come back and join me at your colored dots.” • Explain the activity • “I am going to say a shape and I want you to do your best to draw it. Do not show your neighbors, let them think of the idea on their own. If you finish early, draw the shape again. We are going to do it on 3-2-1 show and then hold up your white boards.” • “Any questions?” • State different shapes, giving the students time to draw them on their white board. Gather needed knowledge of what shapes the students know and those they need more work on. After each shape is shown, draw the correct shape on the white board. <ul style="list-style-type: none"> ○ (i.e., triangles, circles, squares, rectangles, pentagon, hexagon, quadrilateral, etc.) • Have the students return their white boards to the back of their classroom 			
Explain: (concepts, procedures, vocabulary, etc.) <ul style="list-style-type: none"> • Introduce the shape triangle. <ul style="list-style-type: none"> ○ “Today we are going to discuss triangles and the characteristics of triangles.” ○ Pull up the following slide. 			

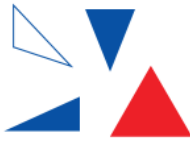
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Triangles: Shapes with 3 Sides

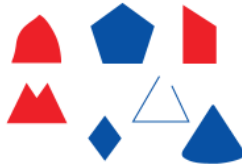
Math Words
• triangle

Triangles have 3 straight sides that are connected.
Triangles also have 3 vertices.

These shapes are triangles.



These shapes are **not** triangles.



What is the same about the shapes that are triangles?

- Identify the characteristics of triangles.
 - “Triangles all have three straight sides. Let’s count the sides of these triangles. Count out loud with me.”
 - Count the sides and mark them on the board.
 - “Triangles also have three vertices. Vertices is the same as saying corners. Can you all say vertices? *Vertices.* Let’s count the vertices on these triangles.”
 - Count the vertices and mark them on the board.
- Discuss why the triangles on the right are NOT triangles.
 - Point to one of the triangles.
 - “Why is this shape not a triangle?”
 - Make sure to point out the curvy sides and the one where the sides are not connected.
 - “Great job, now we are going to see if we can identify triangles.”
- Transition to the following slide.

Drag the shapes to sort them into groups.

Start Over

- Tell the students what the task is.
 - “We are going to identify which of these shapes are triangles. Remember we are looking for shapes with three straight sides and three corners or vertices.”
 - “If you see a triangle, I want you to raise your hand and tell me what letter on the shape.”
 - Call on the students and drag the triangles into the box on the left.
- Discuss different ways in which you can sort these triangles.
 - “Now that we have all of our triangles, is there any other ways that we can sort these triangles?”
 - Possible examples include: color, size, alphabetically, triangle shapes (isosceles, right triangle, equilateral – students will not know these names), etc.
- Transition to the following slide:

INVESTIGATIONS

Use the DrawPad to draw triangles and to record how many.

Directions

How many triangles did you draw? _____

- Explain what this slide entails.

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- “We are now going to practice drawing triangles. What are the characteristics we need to remember when drawing triangles?” (3 straight sides and 3 corners)
- “I am going to draw an example. I am going to pick three dots on this sheet and connect them with straight lines.”
- Draw an example.
- Allow students to take turns and draw triangles.
 - Call on students to come up and draw examples.
 - If they are all continuing to draw the same triangle, prompt them by asking “can you make your triangle larger/smaller?” “Can you make the sides all different lengths/two the same length?”
 - Ensure the students that if they don’t get a chance to write on the board, they will get a chance to draw their own triangles on their worksheet.

Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)

- Explain the student their independent work.
 - “We are going to do two pages in your math workbook.”
- Display the workbook page on the board:

The screenshot shows a worksheet with a header for 'NAME' and 'DATE', and a 'DAILY PRACTICE' badge. The title is 'Circling Triangles'. The first instruction is to circle all triangles in a group of shapes including a triangle, parallelogram, circle, trapezoid, diamond, another triangle, oval, right-angled triangle, rectangle, inverted triangle, and square. The second instruction asks for two common characteristics of the circled triangles. The third instruction asks for observations about the sides of a triangle. A note at the bottom states: 'Students identify triangles and list two attributes that all triangles have in common. Triangles: Shapes With 3 Sides. UNIT 2 | 80 | SESSION 2.2 © Pearson Education, Inc.'

- Read the questions to the students, underlining the important words.
 - “The first question says ... “
 - “The second question says ...” “Think to yourself what are two characteristics that we learned today about triangles. Put your hand on your head when you can think of them.”
 - “The third question says ...” “When we have our shapes, do they have straight or curvy sides? Give me a thumbs up when you know the answer.”
- Display the second worksheet page

The screenshot shows a worksheet with a header for 'NAME' and 'DATE'. The title is 'Dot Paper: Triangles'. The instruction is to circle 3 different dots in the same row or column and draw a triangle connecting them. A 20x20 grid of dots is provided. Below the grid, it asks 'How many triangles did you draw?'. A note at the bottom states: 'UNIT 2 | 80 | SESSION 2.2 © Pearson Education, Inc.'

- Explain this side of the page
 - “On this side of the page is your chance to draw triangles. Make sure they have the proper characteristics. On two of your triangles, I want you to circle the vertices. Make sure all of the triangles have three vertices.”
 - “Once you are done drawing your triangles, count them up and answer the question on the bottom of the page.”
- Send the students to work

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- “When I say GO, head back to your desks and pull out your math workbook. Rip out pages 89 and 90 and write your name at the top. Then get to work. GO!”
- Walk around and ask students questions and monitor their learning.

Review (wrap up and transition to next activity):

- Once you notice the students are finishing up make an announcement.
 - “Once either Ms. Brendel or I check your worksheet, place it in your mailbox and grab your Chromebook and begin doing DreamBox.”
- Inform students about working with the teacher during worktime
 - “I might call you over to my desk during DreamBox time. If I call your name, pause where you are and head to my desk.”
 - Don’t tell them that it is an assessment, just say they are going to work with you for a minute.

Formative Assessment: (linked to objectives)

Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc.

- Identification on why certain shapes do NOT fit the criteria of a triangle
- Placing their hand on their head if they can identify the characteristics of triangles
- Thumbs up if they know if the sides are straight or curvy
- Walking around and monitor their learning during independent worktime

Summative Assessment (linked back to objectives)

End of lesson:

- During DreamBox worktime, call students to meet with you one-on-one
- Layout a set of pattern blocks on your desk.



- Ask the student to identify the triangle
 - “Which of these shapes is a triangle?”
- Ask the student how they know that this is a triangle.
 - “How do you know this is a triangle? What characteristics does it have?”
 - Desired answer includes: 3 straight sides (okay if they left out the word straight) and 3 corners or vertices.
- Mark down their score using the following rubric:

3	2	1	0
Can identify the pattern block that is a triangle and can name TWO characteristics of triangles	Can identify the pattern block that is a triangle and can name ONE characteristic of triangles	Can identify the pattern block that is a triangle but cannot tell you how they know/list any characteristics	Cannot identify what pattern block is a triangle

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):