



NCEA Math Lesson Plan

Grade: 2

Subject: Mathematics

Domain: Geometry
Standard Number(s) and Description: 2.G.1 Recognize and draw shapes having specific attributes...Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
Vocabulary to be Highlighted: Attributes, triangles, quadrilaterals, pentagons, hexagons, cubes, sides, faces, angles, vertices, corner Extended vocabulary: heptagon, octagon, nonagon, decagon, polygon
Mathematical Practices (#): 2. Reason abstractly and quantitatively. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. Essential Question: What attributes are important for naming objects?
Materials/Tools (include technology): YouTube book "The Greedy Triangle" by Marilyn Burns Tangrams Geoboards Baseball card creation activity on ReadWriteThink App iPads
Connections to Other Math Domains:
Connections to Other Subject Areas: ELA-Reading Religion Technology
Catholic Identity Component: The number 3 is used 553 times in the Bible -Trinity -Three Wise Men -3 in 1 (Father-Son-Holy Spirit) -Faith-hope-charity -Mind-body-spirit Genesis 1:26 Let us make man in our image...be happy with who you are - God created you Psalms 139:14 Be happy with yourself
Resources (attachments): 150+ Essential Questions for Math-Derry Village School

Bible
National Library of Virtual Manipulatives website

Activities/Timeline:

1. Review/introduce vocabulary to students
2. Talk about Catholic Identity of the number 3
3. Watch the story "The Greedy Triangle" by Marilyn Burns on YouTube
4. Stop and identify the number of sides, the number of faces etc.
5. Discuss/identify attributes for naming shapes in the story
6. Students work with a partner and use paper to record information.
7. Talk about Catholic Identity-"Be happy with who you are."
8. Student choice activities:
 - a) Create a shape trading card (ReadWriteThink app) - Use app to create a trading card for a shape including listing attributes.
 - b) Tangram - use tangram to create an animal; list attributes of shapes on a recording sheet.
 - c) Geoboard or National Library of Manipulatives - create/draw a new creature; list attributes on a recording sheet.
 - d) YouTube "Polygon Song" - write your own song or poem about shapes; list attributes of shapes on a recording sheet.
 - e) Find shapes in everyday life - use iPad to take pictures of shapes found in everyday items; list attributes of shapes on recording sheet.

Formative Assessment (what to look for, how/when to look):

Observe extension activities
Class discussion
Observe student recording sheets
Self-assessment

Summative Assessment:

Identify and draw shapes that match attributes for triangle, quadrilateral, pentagon, hexagon.