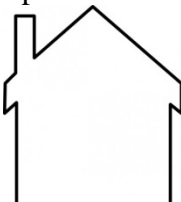




NCEA Math Lesson Plan

Grade: 1

Subject: Mathematics

Domain: Geometry
Standard Number(s) and Description: 1.G.3 Partition circles and rectangles into two and four equal shares, describe the share using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares.
Vocabulary to be Highlighted: Whole, part, half, fourth, quarter, half-of
Mathematical Practices (#): 1. Make sense of problems and persevere in solving them 4. Model with mathematics 6. Attend to precision Essential Questions: When and why should we use fractions?
Materials/Tools (include technology): Book: <u>Full House</u> by Dayle Ann Dodds Chart paper Website: NLVM (Fractions are part of a whole/Fractions-Naming) Optional: Blackline outline of a house (children drawn in 6 windows)  Optional: Circles divided into 6 equal pieces
Connections to Other Math Domains: Operations and Algebraic Thinking (Ways to make a number using addition/subtraction)
Connections to Other Subject Areas: Social Studies (careers)
Catholic Identity Component: Catholic Social Teaching-Pope Benedict XVI wrote, “No man is an island, entire of itself. Our lives are involved with one another, through innumerable interactions they are linked together. No one lives alone. . . . “
Resources (attachments): www.usccb.org/campus

Activities/Timeline:

Whole group activity-options for set up may be to start at desks and then move to carpet/circle area when reading the story. Then students can go back to desk for follow up activity and “pick a spot” in classroom for assessment piece.

1. Discuss examples of careers – noting those that may require travel.
2. Explain the purpose of a Bed and Breakfast.
3. Post highlighted vocabulary-provide a visual example of each on chart paper.
4. Present children with a complete circle – have lines marking the 6 parts of the circle.
5. Engage in an activity that requires the children to identify fractional parts of the circle, (put dots in 1 of the six parts= $1/6$, color 2 of the six parts red= $2/6$ red: $3/6$ have something inside them, etc.)*see formative assessment below.
6. Provide children with the house outline. Tell them they are business owners and they happen to own a Bed and Breakfast. They have a total of 6 bedrooms. Draw a window for each of the bedrooms in the house. Color in one of the windows yellow to show that is their bedroom. How many rooms are available to guests? *see formative assessment below
7. Read the story Full House -color a window for each of Mrs. Bloom’s guests as they are introduced in the story.
8. Point to the vocabulary-whole, part, half-of, when appropriate in the story. Guide the children to see the similarity between $3/6$ and $1/2$. (They may not understand this as it requires a higher level of thinking. Use chart paper to show a circle divided into 6 pieces - color $1/2$ -then count the 3 parts of the 6.)
9. Catholic Social Teaching-Should Mrs. Bloom allow anyone to rent one of her rooms? Discuss.
10. Follow up with any models of fractions or the NLVM website.

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

While students are coloring parts of the circle, note their understanding.

Can students state the correct fraction in describing the parts you name?

Can students write an addition sentence that has a sum of 6 using the windows as the parts?

Can students write a subtraction sentence that starts with the whole (6)?

Summative Assessment:

Using the circle shape from earlier-ask students to glue $1/6$ of their circle to a paper and label it.

Repeat above with different fractional parts of the circle shape.

Ask students to write a fraction of your choosing-labeling the whole and the part.