Unit 3a-Fractions Equivalence and Comparison

Content Area: **Mathematics**
Course(s): **Math 3**
Time Period: **Marking Period 3**
Length: **MP3 Topic 13 13-1 to 13-8**
Status: **Published**

Essential Questions

- What are different ways to compare fractions?

Big Ideas

- **Build on the Concept of Unit Fractions-** Students understand that fractions are parts of a whole.
- **Fraction Representations-** Fraction concepts are developed and reinforced using diagrams of positioned regions, fraction bars, and number lines.

Cross-Curricular Integration

Integration Area: Science

3-LS4-4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

Topic 13 Pick-a-Project

Research how deep one has to dig a well to reach water. Draw a picture showing how deep you would dig your well. The distance will be one whole. Include what is underground, such as the rock into which you are digging—and the water, of course! Next, think of two fractions that have the same denominator. Each will be a fraction of the whole distance you have to dig your well from the top of the ground to the place you can reach water. Mark each fraction along that whole distance of the well you have drawn in the picture. Compare the two fractions with the whole distance that was dug for the well. What do you notice about the two fractions compared with the whole? How would two other fractions, each with

the same denominator, compare?

CSDT Technology Connection

8.1.5.DA.2: Compare the amount of storage space required for different types of data

Enduring Understandings

3.NF.A [M] Develop understanding of fractions as numbers

3.NF.A.3a Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

3.NF.A.3b Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.

3.NF.A.3c Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.

3.NF.A.3d Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Mathematical Practices Focus

3. Construct viable arguments and critique the reasoning of others.