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| **Math 4** |
| **Subject: Math****Unit: Fractions of a Whole** |
| **Learning Target:** Students willfocus on proper fractions less than or equal to one.They willname, record and create concrete representations of fractions.  |
| **Curriculum Outcomes:** **N8.03** Students will name and record the shaded and non-shaded parts of a whole.**N8.04** Students will represent a given fraction pictorially. Students will demonstrate an understanding of fractions less than or equal to one by using concrete, pictorial, and symbolic representations to name and record fractions for the parts of one whole or a set. |
| **Screencast Support:** S**creencast**,[Fractions of a Whole](https://www.youtube.com/watch?v=C6iG4YGy3jI)https://www.youtube.com/watch?v=C6iG4YGy3jI. |
| **Resources/AT Tips:** **-Screencast** – Fractions of a Whole -iPads-Pearson **interactive** Colour tiles (nsvs site)-cm grid paper-Coloured tiles-Markers-**Activity Sheet** |
| **Lesson Procedure** | **21st Century Skills** |
| **I do:** **Activate Prior Knowledge*** You will lead this lesson with questions that will prompt students to see the role that equal parts play when writing a fraction as a numerator over a denominator. Text, page 175.
* Create and present a coloured quilt, made from 16 square tiles.
 |  find, validate remember, understand  communicate  |
| **You do:*** Present the quilt using the **Smartboard** and the Pearson **interactive** coloured tiles.
* Discuss the need for equal parts in order to create a fraction.
* Discuss the role of the top number of a fraction and discuss the role of the bottom number in a fraction.
* Present a few shapes, top of text page 176, and have students determine the fraction, focusing in on naming the denominators first – thirds, fouths, etc.
* Present the **Screencast** – [Fractions of a Whole](https://www.youtube.com/watch?v=C6iG4YGy3jI)https://www.youtube.com/watch?v=C6iG4YGy3jI.
 |   collaborate, communicate analyze, synthesize critical thinkingevaluate,  |
| **We do:** * Have students make a coloured design, like a small quilt of 24 squares, using coloured tiles, cm grid paper, **or** the geoboard app. Once completed they reproduce it on the grid paper.
* Have students describe each section of the quilt using fractions.
 |   collaborate, communicate analyze, synthesize critical thinking evaluate, leveragecreate, publish citizenship |
| **We share:*** Ask students to sit with numerous partners; swapping and describing quilt designs. Teacher rotates, listens, and records. Offer assistance to those in need.
* Create one more quilt using the **interactive** **tiles** or **interactive grid paper** on the Smartboard as a class. Have students take turns to design a square, then have others describe it using fractions.
 |   collaborate, communicate analyze, synthesizecritical thinking evaluate, leverage create, publish citizenship |
| **Differentiation** |
| **Adaptations:** * Any student needing adaptations or support can work with a partner to create their quilt.
* **Replay** the screencast **Fractions of a Whole** as needed.
* Allow students to help you manipulate the interactive coloured tiles at the Smartboard or have them use coloured tiles.
 | **Enrichment:** * Students ready for enrichment can investigate the fraction strips.
* Allow these students to explore the **Brainingcamp app** (**Fractions**) to learn more about fractions.
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| **Assessment:** Have students demonstrate awareness of fraction partitioning by completing the attached **activity sheet**. Then ask them to attempt task #2 independently, partitioning shapes.Teacher rotates, listens, and records student successes and needs as they discuss their fractional parts with classmates.  |
| **Teacher Reflection:** Watch for those students who need help understanding that fractions compare one part of the whole to the entire whole.Allowing the students to work together allows you to roam, listen and support the students. This further informs the direction of ones instructional strategies.  |

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

Shade each shape to show the given fraction.

 a) Show . b) Show .

 c) Show . d) Show .

 e) Show . f) Show .

**Assessment Task #2**

Display 11 square tiles and tell the student that they represent sandwiches. Explain that two children would like to share the sandwiches equally. Ask: “What fraction of the sandwiches will each child receive?” Have the student use the tiles to show how the sandwiches could be shared between the two children. After the student has created 2 groups of 5 tiles, observe how he or she deals with the eleventh tile.