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| **Common Core State Standards**: CC:5 NF 4A. APPLY AND EXTEND PREVIOUS UNDERSTANDINGS OF MULTIPLICATION TO MULTIPLY A FRACTION OF WHOLE NUMBERS BY A FRACTION. INTERPRET THE PRODUCT (A/B) X Q AS A PARTS OF A PARTITION OF Q INTO B EQUAL PARTS; EQUILIVANTLY, AS THE RESULT OF A SEQUENCE OF OPERATIONS |
| **Learning Target(s):** (What the students will *know* & be able *to do* as a result of this lesson)Model to find the fractional part of a group.Component 1C- Setting instructional goals |
| **Key Concepts:** Students will be able to model the fractional part of a group.Component 1E- Designing coherent instruction**Do Now:** (Spiral Review)Problem of the Day: Dan uses 2/3 cup of brown sugar and ¼ cup of white sugar to make oatmeal bars. How many cups of sugar does he use in all?Component 1A- Demonstrating Knowledge of Content and Pedagogy & 1E Designing Coherent Instruction | **Questioning:** (List at least 3 thought-provoking questions you will use in your lesson)1. *How* many rows of equal size will you show?2.*How* can you determine into how many equal groups to arrange the counters?3.*Explain* how your model would be different if you were finding ¾ of 12 instead of 2/3 of 12? |
| **Introduction/Hook:**(What connections to *past or future learning*? How can you connect it to the *real world*?) Have the students watch the real world video: Electronic Drums. Ask:•Does anyone practice playing a musical instrument? What musical instruments do you play?* Brandon P- Drums. Have him do a couple of beats.

In a song, the length of time a tone is held is indicated in the music by different types of notes. There are whole notes, half notes, quarter notes, and so on. How many quarter notes do you think equals a half a note?Component 1A- Demonstrating Knowledge of Content and Pedagogy & 1E Designing Coherent Instruction |
| **Modeling: (Teacher Do, Mini Lesson)**(List so that anyone can read and imagine what is happening in your class. How will you scaffold instruction so that all students are able to *engage appropriately in this lesson*?)Read and discuss the problem: “Matthew collects stamps. He has 20 stamps in his collection. Four-fifths of his stamps have been cancelled. How many of the stamps in Matthew’s collection have been cancelled?” Find 4/5 of 20.  \*\* Break it down\*\*: What are we finding out? What words are important operation words? How can we set it up?•How can you determine into how many equal groups to arrange the counters?•How is each group alike?•Explain what each group represents?•How can you determine how many groups to circle when finding 4/5 of the counters?Component 1E Designing Coherent Instruction |
| **Guided Practice: (Teacher & Student Do)**( List so that anyone can read and imagine what is happening in your class. How will you scaffold instruction so that all students are able to *engage appropriately* in this lesson?)* Example- Kevin’s video game collection has games from all kinds of systems. He has 12 games from play station 3. Of those 12, 2/3 of them have zombies. How many games have zombies on them?
* Draw an array to represent. This means “build it out”?
* How can you decide how many rows of equal size to make in your array?
* How can you decide how many rows of equal size to circle?

The first problem connects to the learning model. Use exercises 3 and 4 for a quick check. Explain how you can use your model for exercise 4 to find 1/3 of 6. If students completed exercises 3 and 4 correctly, they may continue with independent practice.Component 1E Designing Coherent Instruction & 3A Communicating with students |
| **Independent Practice: (Students Do)**( List so that anyone can read and imagine what is happening in your class. How will you scaffold instruction so that all students are able to engage appropriately in this lesson?) High group: Draw to model the fractional part of a group. No prompting or pictures needed. Intermediate Group: Have students use paper and cups and 12 straws to find 2/3 of 12. Help students see that the denominator is 3 so they will need to make 3 equal groups. Have the students take 3 cups. Then have students share the 12 straws equally among the three cups. How did you decide how many straws to put in each cup? How many straws are in each cup? To find 2/3 of 12, how many groups should you count? The numerator is 2, so you will count two equal groups. Low Group: (use grid paper): Re-do the mini lesson problem on the grid paper. Next, introduce the cups and straws. Give students this problem: 2/3 of Carl’s stamps are from England. He has 18 stamps. How many of Carl’s stamps are from England? Have students model the problem by shading an array on their grid paper. How many rows of equal size will you show? Explain? Have students shade one square in each row until 18 squares are shaded. How many are in each row? How many rows will you circle to show 2/3 of 18? Do this problem on the grids, and then with the cups and straws.Component 1E Designing Coherent Instruction & 2C Managing Classroom Procedures, & 3b Using Questioning techniques,  |
| **Closure (Review/ Summary):** (Summarize/restate what was learned today. How will you know that your students learned today?)How can you find a fractional part of a group?Explain how to find ¾ of 20 using a model. Include a drawing. * Tape the question in their math journals. Collect and evaluate their responses.

Component 1F Designing Student Assessments, & Component 3d Using Assessment in Instruction, & Component 3D- Using assessment in instruction |
| **Vocabulary:** (What words do the students need to know and use so that they can learn today?) attach sheet if necessaryReview: numerator, and dominator. High Group: Improper FractionComponent 1A- Demonstrating Knowledge of resourcesComponent 1E- Designing coherent instruction | **Materials:** (What items will be used to teach this lesson?)MathBoard, counters, grid paper, thinkcentral counters.Component 1D- Demonstrating knowledge of resources |
| **Remediation (Differentiation):** (What activities will the students that don’t learn complete? How will you re-teach the learning target?) attach sheet if necessaryELL Support- Draw- There are 8 balls. Three fourths of the balls are red. How many balls are red? Have students draw a picture to model the problem. How many equal groups did you draw? How many balls are in each group? How many groups did you circle to show ¾ of 8? “Of and x” are the same.Component 1B- Demonstrating Knowledge of students | **Acceleration:** (What activities will students who already know the concept complete? How will you expand their learning?)Science: The earth rotates on its axis once every 24 hours. One rotation takes one day. This rotation causes different parts of the Earth to have light and dark every day. The sun provides the Earth’s light, so when a part of the Earth is not facing the sun, it is in the dark. When it is dark on Earth for ¼ of the day, for how many hours is it dark?Social Studies: Displaying a map- discuss that there are 50 states in the United States. The mainland is surrounded by the Pacific Ocean to the west, the Atlantic Ocean to the east, and the Gulf of Mexico to the south. Explain that 1/10 of the state’s border the Gulf of Mexico. Have the students find how many states border the Gulf of Mexico. Have students look at the map to identify which states border the Gulf of Mexico. |
|  | **Assessment Strategies:** (Choose only the ones used in lesson) |
| **Data:**

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| Name | Tier | Objective met | HW Group |
| B.A. |  |  |  |
| C.A. |  |  |  |
| K.C. |  |  |  |
| A.D. |  |  |  |
| T.H. |  |  |  |
| R.H. |  |  |  |
| K.H. |  |  |  |
| K.I. |  |  |  |
| F.M. |  |  |  |
| B.M. |  |  |  |
| M.M |  |  |  |
| B.P. |  |  |  |
| D.T. |  |  |  |

 | **Teacher Observation**Written Work**Oral Responses**ProjectsConstructed ResponseCollaborative Group Work | PresentationsIndividual Practice**Guided Practice**Writing ActivitiesQuiz/Test**Performance Tasks**Component 3D Using Assessment in Instruction |

Component 4A- Reflecting on teaching

**Reflections/Revisions/Artifacts:**

1. How did student work connect to other disciplines and /or real-life?
2. How did this lesson reflect academic rigor?
3. How did this lesson impact student learning?
4. How did this lesson engage students in collaborative learning and enhance their

collaborative learning skills?

1. How will you use these learning experiences or student products as formative assessment?
2. What quality feedback did you gain from the assessment?
3. How will you adjust instruction to reteach and retest for mastery?
4. What evidence (data) proved the students “got it”?
5. How will you accelerate instruction for student who “got it”?