**Grade** **Level**: 4th Grade **Dates**: 2/1-3/15

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| **School Information****School**: Copeland Elementary **School Code**: 060043**Teachers**: David, Jennings, Nelson **Buffer**:  | **Transdisciplinary Theme**: Where we are in place and time **Segment of Theme**: Inquiry into personal histories; homes and journeys; the discoveries**Over Arching Concept**: Function |
| **Section 1: Overview** |
| 1. **Central Idea**: Fractions can be used in many aspects of our everyday lives.
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| 1. **Key Concepts**: Connection and Change
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| 1. **Guiding Related Concepts**: Representation
 | 1. **Lines of Inquiry**:
 | 1. **Teacher Questions (Guided Questions)**:
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| Vocabulary: Fractions Denominator Numerator Whole Part | Fractions can influence or impact our daily life decisions.Changes in Fractions can have long term affects.Fractions surround our everyday activities.  | **DOK Level 3 & 4** 1. How can the knowledge of fractions be used to solve real world problems?
2. How are fractions related to finding the cost of items ?
3. What areas can changes in fraction affect ?
4. What are the long term affects that can happen if fractions are misinterpreted or incorrect ?
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| 1. **Prior Content Knowledge**:
 | 1. **Assessing the Lines of Inquiry**:
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| * Students should be able to Identify that the denominator in a fraction tells us how many equal sized parts are in a whole, and the numerator tells us how many of the pieces we are interested in
* Students can coordinate the numerator and the denominator in a fraction to create and explain meaning for fractions
* Student’s will need to have prior knowledge of how fractions are a part of a whole that can be added together or broken apart.
 | How will you assess student’s understanding of the lines of inquiry?Students will create real world fraction word problems to solve with their peers.Students will demonstrate they can add and subtraction Fractions. Students will demonstrate that they can multiply fractions. Students will be given the shopping with fraction activity and will be evaluated on how well they can determine the cost and/or price of items.  |
| **Section 2: What Are Our Target Goals?** |
| 1. **Concept Based Summative Assessment:**
 | 1. **Targeted Approaches to Learning (highlight 3):**
 | 1. **Targeted Learner Profile Attributes (highlight 2):**
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|  Shopping with Fraction (Fraction Inquiry Collaborative project): Students will be task with creating their own Pop up shop. 3 Items must be marked off. students will go around to different shops in the class to purchase items and they must use appropriate operation to figure out the cost and pay the shop.  | Social Skills, Research Skills, Communication Skills. Thinking Skills, Self-Management Skills  | well-balanced, caring, principled, open-minded, risk taker, knowledgeable, communicator, reflective, thinker, inquirer |
| **Section 3: What Assessments will be provided in this unit of inqu** |
| 1. Pre-Assessments:

What assessment will be given at the beginning of the unit to inform current understanding  | 1. Formative Content Based Assessments:

What assessments will be given to monitor student learning of content? | 1. Summative Content Based Assessments:

What assessments will be given for students to show mastery of unit content? |
| Ready Math Unit District Pre-assessment4th Grade unit 3 Pre-test  | IXL Seasaw Exit Tickets I-ready Informal checks Kahoot Small group Activities Station/rotation activities -Fraction Wars: Students deal two cards: a numerator and a denominator, and then determine whose fraction is the largest. Students will then add and subtract the fractions. The winner keeps all four cards, and play continues until the cards are gone. | Unit 3 Content Mastery Assessment post assessment Unit 3 District Assessment  |
| **Section 4: How will we Facilitate Learning?** |
| 1. Provocation:

How will interest into this unit be sparked? | 1. Learning Experiences:

What activities/experiences will help facilitate the learning? | 1. Evidence of Differentiation:

How will the learning experiences be adjusted to different learning styles/abilities? |
| Student will watch a video that discusses how to add and subtract fractions with mixed numbers. <https://www.brainpop.com/math/numbersandoperations/addingandsubtractingfractions/>Adding Fractions.[https://www.flocabulary.com/unit/adding-fractions/](https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.flocabulary.com%2Funit%2Fadding-fractions%2F&data=04%7C01%7CDavidTa%40BOE.Richmond.k12.ga.us%7C9922c9b96f7147540f6408d9dac3a5dd%7C30b22d4073624f1783a92530927b6f65%7C0%7C0%7C637781356101314145%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=HhKETx1pAAuIGSwj3bzypGRnys5C6eVu6seXPAEFTCQ%3D&reserved=0)Multiplying Fractions[https://www.flocabulary.com/unit/multiply-fractions/](https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.flocabulary.com%2Funit%2Fmultiply-fractions%2F&data=04%7C01%7CDavidTa%40BOE.Richmond.k12.ga.us%7C9922c9b96f7147540f6408d9dac3a5dd%7C30b22d4073624f1783a92530927b6f65%7C0%7C0%7C637781356101314145%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=hGUH7Zc9A7t3wBAPPG5jrx%2B4iJI76OD232y5jsJcJ7M%3D&reserved=0)Provocation: Trail Mix Activity- Students will practice adding, subtracting, and multiplying fractions by making their own trail mix. Students will have to solve each problem correctly before they are allowed to eat the trail mix.  | Week 1: ( Lesson 20 Ready Classroom )Focus on Equal PartsStudents will fold a piece of paper to practice recognizing making and naming fractional parts.Week 2: Fraction PizzasStudents will be given various pizza orders of twos and will be required to fix the order and determine which operation is required to figure out the order. Cooking with FractionsStudents will be placed in groups of 4-5 students and given the following task: Students are having a get together and are expecting 30 guests. Students plan on serving Banana Bread, Chocolate Chip Cookies, and Sugar Cookies. Using the three recipes given, work with your group to create recipe cards to feed 30 people. Next, total up the ingredients needed. Then, check to see how much of each product needs to be purchased based on what is already on hand. Finally, create a display of your project that showcases your group’s creativity. <http://www.montereyinstitute.org/courses/DevelopmentalMath/U02PROJECT_RESOURCE/index.html>Week 3: Fraction HopscotchTeacher will draw a Fraction Hopscotch board on the playground and label it with fractions. Students will throw a marble and come up with a fractions that's equivalent to that fraction they landed on ( review) and then add that fraction to the number they stepped on. Week 4: Shopping with Fraction (Fraction Inquiry Collaborative project): Students will be task with creating their own Pop up shop. 3 Items must be marked off. students will go around to different shops in the class to purchase items and they must use appropriate operation to figure out the cost and pay the shop.  | All of the activities will be scaffold to meet the varies needs of learners. The teacher will make sure to cater to the needs of the different learner styles when teaching the material. ( providing visuals, Manipulatives, Videos, Hands on activities, etc.) Paras and SPED teachers will also assist students who need additional support.  |
| 1. Learning Experiences in Specials:

How are Specials Courses able to connect to this unit? | 1. Local/National/Global Connections:

How can we connect the content to local/national/global issues? | 1. Student Action

What learning experiences support potential student-initiated action? |
|  | Students can make local connections to fractions in the real world by learning about how fractions play a role in time, baking, recipes, sales, in their grades etc.,. Students can make global connections with fractions by completing the Fractions Around the World Scavenger Hunt (Food edition) from TeachersPayTeachers. | These activities support potential student action: Shopping with Fraction (Fraction Inquiry Collaborative project): Students will be task with creating their own Pop up shop. 3 Items must be marked off. students will go around to different shops in the class to purchase items and they must use appropriate operation to figure out the cost and pay the shop. Fraction HopscotchTeacher will draw a Fraction Hopscotch board on the playground and label it with fractions. Students will throw a marble and come up with a fractions that's equivalent to that fraction they landed on ( review) and then add that fraction to the number they stepped on.As students are participating in these activities student action will rise by them taking ownership of their learning and by applying skills to new learning concepts.  |
| 1. Student Agency and Play:

What learning experiences provide students with voice, choice and ownership? What play opportunities will be provided by Kindergarten/Pre-K?hands on/STEAM for K-5? | 1. Resources:

Which resources will you and the students use? This may include people, places, technologies, learning spaces and physical materials.  |
| These activities allow students to have voice, choice and ownership: Shopping with Fraction (Fraction Inquiry Collaborative project): Students will be task with creating their own Pop up shop. 3 Items must be marked off. students will go around to different shops in the class to purchase items and they must use appropriate operation to figure out the cost and pay the shop. Fraction PizzasStudents will be given various pizza orders of twos and will be required to fix the order and determine which operation is required to figure out the order.Cooking with FractionsStudents will need to use fractions to determine if they have enough ingredients in their recipes to feed all 30 guest. Fraction HopscotchTeacher will draw a Fraction Hopscotch board on the playground and label it with fractions. Students will throw a marble and come up with a fractions that's equivalent to that fraction they landed on ( review) and then add that fraction to the number they stepped on. | Brain PopIXLSeasaw Performance Matters Canvas Ready Math student and Teacher Textbook Recess Field ( Fraction Hopscotch)  |
| **Section 5: Reflection** (Write the year, change font color for each year) |
| 1. Reflect on learning experiences:
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| Jennings- My students really enjoyed learning and experiences, faction pizza and cooking with fractionsDavid- My students enjoyed the learning experiences presented within the unit. They enjoyed being able to make connections to how fractions are used in everyday life. My students really enjoyed the shopping with fraction activity and were inspired to bring this experience to real life. Nelson- The students were able to experience great learning opportunities. The students enjoyed the activities that were created to make the connections to their new and prior learning of fractions. I believe that their favorite experiences were Fractions Pizza and Cooking with fractions.  |
| 1. How were the tasks differentiated to meet different learning styles?
 | 1. How did the learning experiences and strategies we used throughout the unit help to develop and show students understanding of the central idea?
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| Jennings- I was able to differentiate to meet the different learning styles by focusing on the needs of my expectational students. While planning and carrying out this unit the variety of activities met the needs of students who were having a difficult time as well. David- I was able to differentiate my instruction by catering to the individual needs of my students. Students were grouped by ability and their different learning styles to complete learning experiences. Nelson- I was able to differentiate to meet the different learning styles by focusing on the needs of my expectational students. While planning and carrying out this unit I made that activities that would work for my Speech, IEP, 504, Gifted and ELL students. I created more rigor where it was needed and made activities less rigorous for certain students as well. We included learning experiences that were for visual, auditory, kinesthetic, and reading/ writing learners. I also included many technology activities as we have transitioned to a 1 to 1 school with laptops. | David- The learning experiences allowed students to make connections to the fraction unit and central idea by asking family members about family recipes and traditions. Nelson- Students were able to make the connection between our study of fractions and the Central Idea by asking their families about their favorite family recipes and bringing them in using fractions to determine how much of each ingredient. This was a way to show evidence from past experiences relating to present day. Jennings- Students were able to make the connection between our study of fractions and the Central Idea by asking their families on how they cook. |
| 1. What learning experiences best supported students’ development and demonstration of the attributes of the learner profile and approaches to learning?
 | 1. How effective were the summative assessments in measuring student learning? What, if any, changes need to be made to the assessments?
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| As a team we believed that these learning experiences best supported the development and demonstration of the attributes of thee learning profile and approaches to learning-Connection: Looking at recipe measurements as fractions. Reflection: Reflecting on how fractions connect to everyday life. Causation: Looking at the recipes as cause and effect.  | David- I believe the summative assessments were appropriate and allowed students the opportunity to show what they knew and was effective in measuring students learning. Nelson- These were great assessments for assessing student learning. Jennings- The summative assessments were very effective in measuring student learning.  |
| 1. What student-initiated inquiries (questions) arose from this unit of inquiry?
 | 1. What student action arose from this unit of inquiry?
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| David-1. How do you use fractions for cooking wouldn’t it be confusing ?
2. Why do you have to use fractions to cook ?
3. When I go to the store and it has a price tag that says ½ off does that mean people have to pay $50 ?

Nelson- Some student- initiated inquiries were: How can fractions be in recipes, How can you play Hopscotch work with math, Why are we talking about fractions with math? Jennings-  | David- One student action that arose from this unit of inquiry was students wanted to create real businesses to sell items to their peers to make money. Nelson- One student action that arose was that students wanted to “cook” a recipe in class using fractions as the measurements. Jennings- Students were shocked that they could help the family cook by knowing how to measure the items. |
| 1. Any additional notes or changes that need to be considered next year?
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| David- The unit provided a lot of opportunities for students to connect learning to the central idea. Therefore, at this time no changes need to be made. Nelson- This was a great unit. I do not recommend any changes.  |
| **Section 6: Picture Evidence** |
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\*\*Scroll Down for Unit Standards\*\*

**Unit Standards**:

**ELA**:

**Math**:
Adding and Subtracting Fractions
and Mixed Numbers

Multiplying a Fraction by a Whole
Number

**Science**:

**Social Studies**: