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| **School Information:** Kindergarten  **School**: Copeland Elementary  **School Code**: 060043  **Teachers**: Bussey, Ellison, Heise, Spikes  **Dates:** 2-14—3-25 (7 weeks)  **Buffer**: 3-28—4-1 | | | **Transdisciplinary Theme**: How the World Works  **Segment of Theme**:  An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic​  **Over Arching Concept**: Addition and Subtraction | | |
| **Section 1: Overview** | | | | | |
| 1. **Central Idea**: Addition and Subtraction are ways to work with numbers | | | | | |
| 1. **Key Concepts**: function, change, connection | | | | | |
| 1. **Guiding Related Concepts**: | | 1. **Line28—4-1s of Inquiry**: | | 1. **Teacher Questions (Guided Questions)**: | |
| Discovery  Opposites  Organization | | Addition and subtraction share numbers.  Addition and subtraction share fact families.  Addition and subtraction are opposite operations. | | **DOK Level 3 & 4**  How are addition and subtraction connected? (connection)  How are addition and subtraction related? (function)  How are addition and subtraction opposites? (change) | |
| 1. **Prior Content Knowledge**: | | 1. **Assessing the Lines of Inquiry**: | |
| Number knowledge (ID and counting), One to One correspondence; basic knowledge of more and less. | | How will you assess student’s understanding of the lines of inquiry?  Students will be able to illustrate/draw/dictate examples of addition and subtraction. | |
| **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):** | |
| Write, illustrate/demonstrate, and verbally explain how to do an addition and a subtraction problem. | | 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 inquiry?** | | | | | |
| 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? | |
| Number knowledge (ID and counting), One to One correspondence; basic knowledge of more and less; | | Number ID and counting check; teacher observation and class participation | | IReady  Pre-Post Test in Canvas | |
| **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? |
| Manipulate students in real life addition and subtraction.  Videos:  “When you add with a Pirate”  “Adding Doubles”  “Unicorn, Dinosaur, Dog, Shark Fact Family”  “Add ‘Em Up”  Flocabulary Math  XtraMath  Brain Pop – Adding and Subtracting | **Tuning In:**  “When you add with a Pirate” video; Using students as “manipulatives” model addition/subtraction problems to make the real world connection.    Videos:  “When you add with a Pirate”  “Adding Doubles”  “Unicorn, Dinosaur, Dog, Shark Fact Family”  **Finding Out/Sorting Out:**  Several story problems to act out addition (then subtraction) problems to model real world examples to show understanding; vary difficulty based on student need/ability; make the connections for fact families; modeling, exploring numbers.  Station Examples: Using manipulatives to model adding and subtracting; As mastery is met, Seesaw activities, XtraMath is student driven and leveled to move up as mastery is met, flash cards    **Going Further:**  Students will demonstrate mastery of addition/subtraction using manipulatives, number lines, pictures, etc. Moving to two digit for those kids who are ready for the challenge and master the standard; XtraMath  **Drawing Conclusions/Reflecting and Acting:**  Differentiation will truly be seen at this point, because students will be at a variety of levels. Students will be met where they are to help them continue to progress. | | | | Students will work at own pace. Building on mastery level and progressing as they are ready.  Paraprofessional assistance – with small groups (two teacher directed groups)  Independent group  IReady Group  IXL  SeeSaw |
| 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? | |
| Counting in Spanish | | Addition and subtraction are mathematical operations used around the world. | | Role play, manipulatives, practice at home, drill and practice, Xtramath, | |
| 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. | |
| Scales, more and less, manipulatives, unifix cubes, linking cubes (manipulative) | | | | Math manipulatives: Unifix cubes, fingers, linking cubes, bears, etc.  IXL  IReady  SeeSaw  YouTube Videos  Brain Pop | |
| **Section 5: Reflection** (Write the year, change font color for each year) | | | | | |
| 1. Reflect on learning experiences: | | | | | |
| Bussey- Students were able to add and subtract using various strategies: number lines, ten frames, fingers and number bonds  Ellison-Students learned different methods and representations of addition and subtraction problems.  Heise-The best part about this unit is how self-paced it is for each child. Students can gain knowledge as they are ready.  Spikes- Students were able to add using their fingers, number lines, and ten frames. | | | | | |
| 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? | |
| Bussey- Task were differentiated based on learning levels. Students added and subtracted within 5, 10 etc.. Students worked at their own pace when solving problems.  Ellison-Math tasks were differentiated based on ability groupings and students added and subtracted within 5, 10, etc. Students saw pictorial representations, videos, and manipulatives to meet different learning styles.  Heise-learning addition and subtraction is soooo self-paced, I love it! The kids can grow as they are ready.  Spikes-They were differentiated upon their learning needs and groupings. They also did within 5 and 10. | | | | Bussey- Students were able to understand that being knowledgeable about numbers and their value helps to solve both addition and subtraction problems.  Ellison-The learning experiences helped students explore numeracy, one-to-one correspondence as it related to adding and subtracting numbers.  Heise-hands on learning is so effective and number sense is so important at this age.  Spikes-They were able to count on and show being thinkers when it came to figuring out the math problem. | |
| 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? | |
| Bussey- Students were able to use a life size number line to solve addition problems displaying that they were risk takers and thinkers. Also, they independently solved problems in class without being told to.  Ellison-Students were able to use music videos and sing mathematical songs that demonstrated they were well versed and knowledgeable about the basic concept of addition.  Heise-The fact that the kids are invested in getting “better” and learning more is so encouraging to themselves. They know that they are having fun, then are surprised that they are learning while having fun.  Spikes- They were able to play learning games on the promethean and also do peer learning together and help peers who were struggling. | | | | Bussey- The summative assessments displayed how knowledgeable in subtraction and addition the students are. We can implement a home project shows how well they have mastered the standards; Making an addition or subtraction word problem using items from home.  Ellison-The summative assessments were very effective in measuring students learning. The Canvas assessment gave an a good indication of who had mastered the concepts.  Heise-Seeing where the kids started verses where they are now, is amazing! Keeping the kids learning at their own rate is so important and more impactful for the students. \  Spikes- It showed their understanding of being able to carry out math problems on their own. We can do more outside and real world problems to help with understanding as well to change it up a bit where they are not so tied down to the classroom. | |
| 1. What student-initiated inquiries (questions) arose from this unit of inquiry? | | | | 1. What student action arose from this unit of inquiry? | |
| Bussey- Students wanted to know if it were possible to add two digit numbers using their fingers.  Ellison- Students asked what was the best way to add and subtract numbers when you run out of fingers.  Heise-They started the talks about how many students are in class, how many girls, boys, “big kids” /adults. There are more statements than questions, which is awesome.  Spikes- What happens if we go backwards on the number line. | | | | Bussey-Students who were grasping the addition and subtraction standard assisted their group members who were struggling.  Ellison-Student action that arose were when students worked in pairs and cross-checked each others work.  Heise-excitement of success and the fact they are having fun while learning!  Spikes-They enjoyed the many ways to do math problems with pictures, fingers, ten frame, and number lines. They grasp the different strategies helped them to complete the problem. | |
| 1. Any additional notes or changes that need to be considered next year? | | | | | |
| Bussey- Next year we can use items from home such as cereal to add and subtract.  Ellison- Next year students can create posters of addition and subtraction problems and create a gallery walk.  Heise- more production of actual products to show what they know. They have done a lot of verbal and demonstrating, but not as much physical results.  Spikes- Next year we can use games to make it more fun. I actually have all kinds of math games for the students to use. You don’t think about all of this stuff when so much is going on. | | | | | |
| **Section 6: Picture Evidence** | | | | | |
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\*\*Scroll Down for Unit Standards\*\*

**Unit Standards**:

**ELA**:

**Math**:

**Science**:

**Social Studies**: