Begin with the End in Mind

Summarize the theme for this project. Why do this project?

This project will assist younger students in developing number sense which will build fundamental knowledge of math concepts. Also, to better prepare students for the Illinois Standard Achievement Test (beginning in third grade) when students will need to explain, in writing, how they solve a math problem. Results from previous years test scores has shown students lack the ability articulate how they solve a given math problem. This project will help students begin the process of knowing how they solve a problem and learning to writing the solution using correct vocabulary.

Identify the content standards that students will learn in this project (two to three per subject).

Illinois Learning Standards:

English Language Arts:
STATE GOAL 3: Write to communicate for a variety of purposes.
STATE GOAL 4: Listen and speak effectively in a variety of situations.
STATE GOAL 5: Use the language arts to acquire, assess and communicate information.

Mathematics:
STATE GOAL 6: Demonstrate and apply a knowledge and sense of numbers, including numeration and operations (addition, subtraction, multiplication, division), patterns, ratios and proportions.
STATE GOAL 8: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

NETS-S
Creativity and Innovation
Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.
  a. apply existing knowledge to generate new ideas, products, or processes.
  b. create original works as a means of personal or group expression.

2. Communication and Collaboration
Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
  a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
  d. contribute to project teams to produce original works or solve problems.

Technology Operations and Concepts
Students demonstrate a sound understanding of technology concepts, systems, and operations.
  a. understand and use technology systems.
  b. select and use applications effectively and productively.
Identify key skills students will learn in this project. List only those skills you plan to assess (two to four per person).

- Learn new vocabulary for addition and subtract
- Write simply sentences to convey addition and subtraction
- Use math manipulatives, communicate solving a simple math equation
- Create a digital story to show case understanding of number sense

Identify the habits of mind that students will practice in this project (one to two per project).

- Learning continuously – from new vocabulary terms to final project
- Gathering data through all senses – writing, manipulatives, listening, etc.
- Managing impulsivity – waiting for turn to share any journal, manipulative activity etc.
- Applying past knowledge to new situations – using journals, manipulatives exercises, and read aloud stories for final project
- Thinking interdependently – verbally communicate using grouping to solve math problems
- Listening to other with understanding and empathy – group work to create story
- Creating, imagining, and innovating – group work to create story

- Does the project meet the criteria for standards-focused PBL?