Grade 2 Mathematics – Unit 2: Addition and Subtraction

Phoenixville Area School District

Stage 1 Desired Results

PA Core Standards:

CC.2.1.2.B.3 Use place-value understanding and properties of operations to add and subtract within 1000.

CC.2.2.2.A.1 Represent and solve problems involving addition and subtraction within 100.

CC.2.2.2.A.2 Use mental strategies to add and subtract within 20.

Transfer

TRANSFER GOALS

Students will be able to independently use their learning to…

- *Fluency:* Demonstrate automatic recall of addition, subtraction, multiplication and division facts.
- *Problem-Solving:* Persistently apply various problem-solving strategies and organized approaches to accurately understand and solve problems.
- *Mathematical Vocabulary:* Interpret mathematical vocabulary and apply proper terminology to engage in meaningful oral and written expression that communicates mathematical thinking, problem-solving methods, and rationale.

Meaning

UNDERSTANDINGS

Students will understand that…

- Operations and numerical properties increase computational fluency.
- Depending on the situation, problems may be solved using a variety of tools and strategies.
- Estimation helps determine the reasonableness of an answer.

ESSENTIAL QUESTIONS

Students will keep considering...

- How are the basic operations related to one another? How do numerical properties assist in computation?
- What information and strategies do I use to solve this problem? What is the right tool (operation/ strategy/ technology) for the job?
- When is estimation more appropriate than finding an exact answer?

Knowledge and Skills Acquisition

KNOWLEDGE

Students will know…

- Addition of three-digit numbers with and without regrouping

SKILLS

Students will be skilled at…

- Adding 2 three-digit numbers up to 1,000 with and without regrouping.

	• Subtraction of three-digit numbers with and without regrouping • Modeling addition as joining sets • Modeling comparing as taking away • Modeling addition and subtraction as comparing sets VOCABULARY • Add • Subtract • Regroup • Inverse Operations • Digit	• Subtracting 2 three-digit numbers up to 1,000 with and without regrouping. • Solving real-world problems involving addition and subtraction of three-digit numbers using bar models.

Stage 2 – Evidence

Code A/M/T	Evaluative Criteria	Assessment Evidence	
N/A	N/A	RFORMANCE TASK(S) *udents will demonstrate understanding (meaning making and transfer) through complex rformance by...* A	Differentiation Considerations:
A	Valid conclusions are made based on given/ implied/ found information. Chooses effective strategy/strategies for solving the problem. All necessary work is shown with no missing information/skipped steps. Predictions/solutions are reasonable based upon the	OTHER EVIDENCE **Unit Test 2.1: Addition** • Multiple Choice • Open-Ended Response **Unit Test 2.2: Subtraction** • Multiple Choice • Open-Ended Response **Unit Test 2.3: Real-World Problems** • Multiple Choice • Open-Ended Response	Differentiation Considerations: [Work on this section after completing Stages 1-2 of all units]

	context of the problem situation. Related mathematics is presented in a step – by – step format (final submission only). -All representations are clear and labeled accurately. -Solution is clearly identified; appropriate units are provided (if applicable).		