Teacher: ROBINSON, HALL Date: 10/14-18/2024 Subject: Math Period:

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| **Alabama CCRS/COS: Standards**  11. \*Find the product of two factors (up to four digits by a one-digit number and two two-digit numbers), using strategies based on place value and the properties of operations. a. Illustrate and explain the product of two factors using equations, rectangular arrays, and area models. |

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| **Outcome(s)/Objective(s) Standards:**  **Mathematical Practices:** Ƒ M.4.11.3: Multiply within 100, using strategies such as properties of operations. Ƒ M.4.11.4: Multiply within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 4=, one knows 40 ÷ 5 = 8). Ƒ M.4.11.5: Recall products of two one-digit numbers  NUMBER. |

**ACTIVATING LEARNING STRATEGY/STRATEGIC TEACHING STRATEGIES:**

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|  | KWL |  | Word Splash |  | Anticipation Guide |  | Lecture |  | Graphic Organizer/VLT | |  | Poem, Rhymes, etc. |
|  | Survey |  | Possible Sentence |  | Think-Pair-Share |  | Reading |  | Pictograph | |  | Acronyms/Word |
|  | First Word |  | Concept Map |  | Vocabulary Overview |  | Model |  | Diagram | |  | Other: \_\_\_\_\_\_\_\_\_\_\_\_ |
|  | Word Map |  | Frayer Model |  | Daily Language Practice (DLP)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Hands-on |  | Mind Map/Visual Guide |  | |  |
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| **Engagement Strategies:**  - Collaborative Group Work  - Writing to Learn  - Literacy Groups  Other:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Questioning Techniques  - Scaffolding Text  -Classroom Talk  - T.W.I.R.L. | | | | | | | | | | | | |
| **Technology Integration:**  Smart board  Document Camera  IPADS  Mac Books  Computers  Kindles  Interactive Tablets  Digital/ Video Camera  Clickers  ACCESS  Computer Program:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Other:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | | | | | | |

**This Week’s Vocabulary:**

Compatible numbers

**PROCEDURAL CONTENT (application)**

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|  | | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** | |
| ***Essential Question*** | | * How can you use mental-math strategies to multiply 2-digit multiples of 10 by 2-digit multiples of 10. | How can you use models and properties of operations to multiply 2-digit numbers by multiples of 10? | How can you use rounding or compatible numbers to estimate products of two 2-digit numbers? | How can you use arrays, place value, partial products, and properties of operations to multiply two 2-digit numbers? | * How can you use the Distributive Property and an area model to multiply two 2-digit numbers? | |
| ***I Can Statement*** | | I CAN USE MENTAL MATH STRATEGIES TO MULTIPLY 2 DIGIT MULTIPLES OF 10 BY 2-DIGIT MULTIPLES OF 10. | I CAN USE MODELS AND PROPERTIES OF OPERATIONS TO MULTIPLY 2-DIGIT NUMBERS BY MULTIPLES OF 10. | I CAN USE ROUNDING OR COMPATIBLE NUMBERS TO ESTIMATE PRODUCTS OF TWO 2-DIGIT NUMBERS. | I CAN USE ARRAYS, PLACE-VALUE, PARTIAL PRODUCTS, AND PROTERTIES OF OPERATIONS TO MULTIPLY TWO 2-DIGIT NUMBERS. | I CAN USE THE DISTRIBUTIVE PROPERTY AND AN AREA MODEL TO MULTIPLY TWO 2-DIGIT NUMBERS. | |
| *Preview*  *(Before)*  *Warm-up- Hook* | | SAY SOMETHING  Number String  Calendar Math  Bell Ringer  Prior Knowledge Real World Scenarios  Pose the Solve and Share Problem  Example | SAY SOMETHING  Number String  Calendar Math  Bell Ringer  Prior Knowledge Real World Scenarios  Pose the Solve and Share Problem  Example | SAY SOMETHING  Number String  Calendar Math  Bell Ringer  Prior Knowledge Real World Scenarios  Pose the Solve and Share Problem  Example | SAY SOMETHING  Number String  Calendar Math  Bell Ringer  Prior Knowledge Real World Scenarios  Pose the Solve and Share Problem  Example | Review and Model Lesson  Number String  Calendar Math | |
| *Instruction*  *(During)*  I Do-  We Do-  Y’all Do-  You Do- | | Observe Student at Work  Model Problem  Guided Practice  Independent Practice  Share and show | Observe Student at Work  Model Problem  Guided Practice  Independent Practice  Share and show | Observe Student at Work  Model Problem  Guided Practice  Independent Practice  Share and show | Observe Student at Work  Model Problem  Guided Practice  Independent Practice  Share and show | Assess the students | |
| Small Group | | PROBLEM SOLVING AND ACAP INTERVENTION | Centers:  Fluency/Skill- Envision pg.311  Teacher Table  Word Work  Technology | Centers:  Fluency/Skill- Envision pg.311  Teacher Table  Word Work  Technology | Centers:  Fluency/Skill- Envision pg.311  Teacher Table  Word Work  Technology | PROBLEM SOLVING AND ACAP INTERVENTION | |
| *After/Homework* | | GRAND CONVERSATION Solve the Problem Pad, Kahoot, Booklet  Prodigy, Practice and Study Notes and Problems | GRAND CONVERSATION  Solve the Problem Pad, Kahoot, Booklet  Prodigy, Practice and Study Notes and Problems | GRAND CONVERSATION Solve the Problem Pad, Kahoot, Booklet  Prodigy, Practice and Study Notes and Problems | GRAND CONVERSATION Solve the Problem Pad, Kahoot, Booklet Prodigy, Practice and Study Notes and Problems MATH PLC | STUDENTS CONTINUE TESTING  INTERACTIVE ACTIVITY/EXPERIMENT | |
| **Assessment (Formative):** Class work Notebook Homework quizzes Tests Computer activities Collaborative work  Project/ Other: | | | | | |

**Assessment (Summative):** Quizze**s** T**ests** Group activities Project based Other:

**Summarizing****:**  3-2-1  Ticket out the Door  The Important Thing  Cue Cards  Teacher Questions  Student Summary  Other:

**Lesson Plan: Multi-Digit Multiplication**

**Grade Level:** 4  
**Subject:** Math  
**Topic:** Multi-Digit Multiplication  
**Duration:** 2-3 class periods

**Objectives:**

* Students will understand the concept of multi-digit multiplication.
* Students will be able to multiply multi-digit numbers using the standard algorithm.
* Students will apply multiplication to solve real-world problems.

**Materials Needed:**

* Whiteboard and markers
* Graph paper
* Worksheets with practice problems
* Visual aids (e.g., multiplication charts)
* Real-world problem scenarios for group activities

**Day 1: Introduction to Multi-Digit Multiplication**

1. **Warm-Up (10 minutes):**
   * Review basic multiplication facts (single-digit).
   * Quick mental math exercises to build confidence.
2. **Direct Instruction (20 minutes):**
   * Introduce the concept of multi-digit multiplication.
   * Demonstrate the standard algorithm step-by-step on the board:
     + Multiply the bottom number by each digit of the top number.
     + Emphasize lining up numbers properly.
     + Discuss the importance of place value.
3. **Guided Practice (15 minutes):**
   * Work through a few example problems as a class.
   * Encourage students to ask questions and clarify any misunderstandings.
4. **Independent Practice (15 minutes):**
   * Hand out worksheets with multi-digit multiplication problems.
   * Circulate the room to assist students who may need extra help.
5. **Closure (5 minutes):**
   * Recap what was learned and highlight the importance of multi-digit multiplication.

**Day 2: Application and Problem Solving**

1. **Warm-Up (10 minutes):**
   * Review homework and address any common errors.
2. **Group Activity (25 minutes):**
   * Divide students into small groups.
   * Present them with real-world problems that require multi-digit multiplication (e.g., calculating total items, budgeting).
   * Each group will work together to solve a problem and present their solution.
3. **Independent Practice (15 minutes):**
   * Provide additional practice problems with varying levels of difficulty.
   * Include word problems to enhance critical thinking.
4. **Closure (10 minutes):**
   * Have groups share their solutions.
   * Discuss different strategies used and reinforce the importance of teamwork in problem-solving.

**Day 3: Assessment and Review**

1. **Warm-Up (10 minutes):**
   * Quick review game or quiz on multiplication facts.
2. **Assessment (30 minutes):**
   * Administer a quiz covering multi-digit multiplication concepts and problem-solving skills.
3. **Review and Reinforcement (15 minutes):**
   * Go over quiz answers as a class.
   * Discuss common mistakes and clarify any lingering questions.
4. **Closure (5 minutes):**
   * Highlight key takeaways from the topic.
   * Preview the next topic to generate interest.

**Differentiation:**

* **For advanced learners:** Provide challenging word problems or projects that require additional steps or concepts.
* **For struggling students:** Offer one-on-one support, use manipulatives, or provide simpler problems to build confidence.

**Assessment:**

* Formative: Participation in discussions, completion of practice worksheets.
* Summative: Quiz or test at the end of the topic.