Lesson Plan: Genshin Impact Times Table Masterpiece

Student: Milly (Age 8)

Subject: Math (Multiplication), Art

Focus: This lesson moves beyond memorization to creatively apply multiplication facts in a fun, artistic project that combines Milly's interests.

Materials Needed:

- A simple, printable coloring page of a Genshin Impact character of Milly's choice (e.g., Klee, Paimon, or a favorite character with clear, large sections).
- Plain white paper (1-2 sheets).
- Pencil and eraser.
- Crayons, colored pencils, or markers.
- A ruler (optional, but helpful for making a key).
- A calculator for checking work at the end (optional).

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1. Learning Objectives

- **Application:** Milly will apply her knowledge of multiplication facts (focusing on specific times tables like 2s, 3s, 5s, and 10s) to create a color-by-number key.
- **Problem-Solving:** Milly will correctly place multiplication problems into specific sections of an illustration to correspond with her color key.
- **Creativity:** Milly will design and complete a unique piece of art by solving the multiplication problems she created.

2. Alignment with Standards

This lesson aligns with common 3rd-grade mathematics standards, such as:

- **Operations & Algebraic Thinking:** Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division. (e.g., Common Core 3.OA.C.7).
- **Cross-Curricular Connection:** Integrates mathematical practice with visual arts standards by using creative expression to demonstrate understanding.

3. Lesson Activities & Instructional Strategy (Step-by-Step)

Part 1: The Secret Color Code (10 minutes)

Goal: Introduce the concept and collaboratively create the "key" that will guide the artwork.

1. **Introduction (I Do):** "Today, we're not just going to do math, we're going to turn math into art! We are going to create a secret code to color in a picture of a Genshin Impact character. The only way to crack the code is by solving times tables."
2. **Creating the Key (We Do):**
    - On a fresh piece of paper, help Milly create a "Color Key." Draw boxes for 6-8 different colors she wants to use for her character (e.g., red for Klee's hat, blonde for her hair, etc.).

    - Next to each color, we will assign a range of numbers. For example:
        - **Red:** 1-10
        - **Blonde:** 11-20
        - **White/Light Gray:** 21-30
        - **Brown:** 31-40
        - **Black:** 41-50
    - Talk about the choices. "If Klee's dress is red, what kind of multiplication problems will we need to write in those sections? That's right! Problems where the answer is a number between 1 and 10, like 2x3 or 5x2."

Part 2: The Puzzle Designer (15-20 minutes)

Goal: Milly takes ownership by creating the puzzle herself, applying her multiplication knowledge.

1. **Mapping the Character (You Do):** Give Milly the coloring page of her chosen Genshin character.
2. **Placing the Problems:**
    - Ask Milly to look at a section, like the character's hair. "What color is the hair?" (Blonde). "Okay, look at our key. What number range is for blonde?" (11-20). "Great! Now, can you think of a multiplication problem where the answer is between 11 and 20?" (e.g., 3x4=12, 2x8=16, 5x3=15).
    - Milly will then write one of these problems lightly in pencil in a section of the hair.
    - She will continue this process for the entire picture, filling each section with a multiplication problem whose answer corresponds to the correct color on her key. Encourage her to use a variety of problems.

Part 3: The Artist and Mathematician (15 minutes)

Goal: Solve the puzzle and bring the artwork to life.

1. **Solve and Color:** Now it's time to be the artist! Milly will go through her own puzzle, one section at a time.
2. She solves the problem she wrote (e.g., "3x4"), finds the answer (12), checks the key to see which color that answer corresponds to (Blonde), and then colors that section in.
3. Continue until the entire masterpiece is colored correctly based on her math problems.

4. Differentiation and Inclusivity

- **For Extra Support:**
    - Focus on a smaller set of times tables (e.g., only 2s, 5s, and 10s).
    - Use a coloring page with very large, simple sections.
    - Keep a multiplication chart handy for her to reference as she creates the problems.
    - Complete the first 2-3 sections together to build confidence.
- **For an Extra Challenge:**
    - Encourage the use of more complex times tables (e.g., 7s, 8s, 9s).
    - Introduce two-step problems for larger sections (e.g., "(2x5) + 20" would be 30, which falls in the White/Gray category).
    - Use a more detailed coloring page requiring more problems and colors.

5. Assessment

- **Formative (During the lesson):**
    - Observe Milly as she creates the color key and assigns problems. Is she correctly matching number ranges? Is she accurately creating multiplication sentences?
    - Ask guiding questions: "What's another way you could get an answer in the 'red' range?"
- **Summative (End of the lesson):**

    - The final colored artwork is the primary assessment. Is the character colored correctly according to the key and the solved problems? This demonstrates a clear application of the math skills.
    - Have Milly explain her favorite part of the picture and how she chose the math problem for it. This assesses her understanding of the process.

6. Wrap-Up and Extension

- **Sharing:** Celebrate the finished artwork! Display it proudly. She can even "give" the blank puzzle to a family member to solve and see if their coloring matches hers.
- **Extension Idea:** Create another puzzle for a different character, or try the same concept with division facts ("Color by Division").