



Instructor's Name: Morgan Schwarz

Subject: Mathematics

Grade: 6th Grade

Title of Lesson: Greatest Common Factor (GCF)

Materials and Resources (including technology):

- Yarn
- Small Squares of Paper
- Post-It Notes
- Google Slides (Email)
- Exit Slip

Standard(s) the Lesson will Address: Type out the source, number, and the text of the standard (s) addressed in this lesson

- 6.1.1.6 Determine greatest common factors and least common multiples. Use common factors and common multiples to calculate with fractions and find equivalent fractions.

Objective: State the CONDITION, the BEHAVIOR, and the CRITERIA. Label in () the predominant domain of C for Cognitive, A for Affective, or P for Psychomotor. DO NOT make every condition “at the conclusion of the lesson..”

- During the lesson, students will model the GCF of an assigned number using numbered squares and yarn with a partner. (P)
- At the conclusion of the lesson, students will be able to determine the GCF of a given set of numbers. (A)

Vocabulary:

Academic: Language needed by students to do the work in schools.

- Greatest Common Factor (GCF)

Content: Language the students need to learn to apply the content.

- Factors
- Patterns

Anticipatory Set: How will you get the students ready and/or excited to accept instruction?

- Prose the problem of the day to the students
 - For spirit week, all lockers were decorated with colored streamers. The first locker had orange streamers. The first locker had orange, the second black, and the third white. If the pattern continued, what color were the streamers on the 52nd locker?

- Tip: Encourage students to use the pattern to find multiples of one of the colored streamers. They can then use the multiples to find the color of streamers on a locker close to the 52nd locker, and the pattern to find the color of streamers on locker 52. Suggest that they complete or extend the table below to find multiples.

Locker Number	Color of Streamer
1	orange
2	
3	

Pre-Assessment Plan (if any): Pre-assessments help you to determine what students already know and bring to the lesson content.

- Daily Spiral Review (DO NOW Activity) once the bell has rung (5 minutes to complete)

Input: (SCRIPTED) *Detailed planning: Write plans to a level of depth that would allow another teacher to use the plan to deliver the instruction. Script the learning target(s), transitions and key questions as well as timings.)*

1. Daily Spiral Review (DO NOW) on the board (Students will work on this once the bell has rung). While the students are working, check students' work while answering questions.
2. Review the problems on the Spiral Review with the students on the board.
3. Pose the problem of the day (above) to the students. This should be review.
 - a. What would be the quickest way to solve this problem?
4. To help review the purpose of a Venn Diagram, set up a Venn Diagram concerning pets- one circle labeled "I have a dog", one labeled "I have a cat". Students will write their name on a given sticky note. They will then place their name in the appropriate circle. Discuss the results to review the use of a Venn Diagram.
5. Display the learning goal for today
 - a. **I will find common factors and the greatest common factor of numbers.**
6. Set up a Venn Diagram with one circle titled "Factors of 24" and the other titled "Factors of 54"
7. Display another Venn Diagram with one circle titled "Factors of 39" and the other titled "Factors of 69"
8. Have students identify the common factors (middle of Venn Diagram) and then identify the Greatest Common Factor (GCF) by circling it.
9. Assign a number (1-100) to each student. Have students write all of the factors of their number on small squares of paper (given to them), one factor per square
10. Give each student a piece of yarn to make a circle on a hard surface (notebook, textbook, etc.), placing their small squares of paper in the circle.
11. Direct students to find a partner and combine yarn circles to make a Venn Diagram, placing their factors appropriately.

12. If time allows, allow time for students to share their findings with their partner. Otherwise, allow students time to stand up-hand up-pair up (with someone other than their partner) and discuss findings.
13. Ask for questions. Allow time for answers. If numerous questions arise, allow students to ask during work time.
14. Administer the exit slip. Instruct students to complete the exit slip and flip over when completed.
15. Display and assign the homework assignment on the board for them to begin after their exit slip is completed.
 - a. #2, 3, 11-16, 23-25

Guided Practice (Formative Assessment):

- Group work
- Homework assignment
- Discussion

Closure: (SCRIPTED)

- When the bell rings... Please make sure you ask during study hall if you have questions. Make sure this assignment is brought with you to class TOMORROW (Thursday).

Independent Practice/Summative Assessment: (How will students extend or apply their learning OR demonstrate mastery? If demonstrating mastery, include criteria for evaluation (checklist, rubric, sample, etc).)

- Homework assignment
- Summative assessment (test/quiz) at the end of Topic 5

Accommodations & differentiation for learners:

- Student A- Assignments read to him, shortened assignments, small group environment for homework
- Student B- Use a calculator on math assignments, visual cues to get back on track, goal sheet to monitor progress, “breaks” in resource room when struggling in general education setting
- Student C- Assignments broken down into smaller, more manageable steps, extended time, frequent breaks, small group environment
- Student D- Assignments broken down into smaller, more manageable steps, extended time, frequent breaks, small group environment
- Student E- Allowed to work on homework assignment during instruction, given more advanced problems in textbook and IXL/Prodigy

Multiple Intelligences Addressed: Address at least ONE of these intelligences: ___ verbal linguistic, musical/rhythmic, visual/spatial, intrapersonal, logical/mathematical, interpersonal, bodily/kinesthetic, naturalistic

AFTER TEACHING THE LESSON:

Respond with *professional insights that go beyond superficial considerations.*

- As I reflect on the lesson, to what extent were students productively engaged?
 - The students were actively engaged as I kept them moving throughout the lesson. They were not just sitting in their desks. Instead of direct instruction (which they are used to), the students were moving around about the classroom and interacting with their peers to find the greatest common factor of their sets of numbers.
- To what extent did the students learn what I intended? Were instructional objectives met?
 - The instructional objectives were met as they were actively engaged in learning the content as well as understanding their learning goal of finding greatest common factors of a given set of numbers.
- To what extent did I alter my objectives or instructional plan as I taught the lesson? Why?
 - The instructional plan was altered due to a time crunch. With various things going on that day, we got a late start so I decided to omit the problem of the day to students. The problem of the day was more less a “brain worker” for the students as it did not relate to the lesson of the day.
- To what extent did I practice effective classroom management strategies? What issues do I need to address when I teach again?
 - “3, 2, 1...”
 - Waiting in front of the classroom until everyone is paying attention
 - It is their lunch period that is being wasted, not mine.
 - If this were my own classroom, I would provide other classroom management strategies; however, this is what the students are used to.
 - Raising hands needs to be enforced
 - Independently working while doing the spiral review. It is way too loud and “out of hand” while students do this as their DO NOW activity.
- To what extent did I provide closure to the lesson?
 - Exit slip to be flipped over when completed
 - When the exit slip is completed and flipped over, students may begin working on their homework assignment
 - Not many got to this part
 - When the bell rang, they were dismissed, when prompted.
- If I had the opportunity to teach this lesson again to the same group of students, what would I do differently? Why? How would this affect the outcome of this and future instruction?
 - NO stand up-hand up-pair up
 - Enough moving around the classroom
 - Students were off task during this portion
 - Students would stay on task and be given the opportunity to share their findings with their desk partners/group