

Classifying Math Mistakes

Name(s):

School:

District:

Grade(s) Served: 9, 10, 11, 12

Domain: Academic

Activity

This lesson is to help students learn to check their work in math, to recognize what they need more help on, and to advocate for themselves.

Students will be given a table that outlines the most common math mistakes. They will review some of their graded math work and tally what kind of mistakes they made. We will talk about which of these types of mistakes they can keep themselves from making by checking their work and looking for these, and what they need more instruction on to understand. We will then talk about how to let the teacher know they need more help and what with.

Lesson Topic

Attributes, knowledge and skills for lifelong learning.

ASCA Mindset Standards

M 2. Self-confidence in ability to succeed

M 5. Belief in using abilities to their fullest to achieve high-quality results and outcomes

ASCA Behavior Standards

B-LS 4. Apply self-motivation and self-direction to learning

B-LS 6. Set high standards of quality

B-SMS 2. Demonstrate self-discipline and self-control

B-SMS 8. Demonstrate the ability to balance school, home and community activities

B-SS 3. Create relationships with adults that support success

B-SS 8. Demonstrate advocacy skills and ability to assert self, when necessary

Learning Objectives

1. Students will learn how to check their work in math, and how to advocate to get more help when needed.
2. Students will identify errors they are prone to while test taking so that they may be better aware of them and know how to check their work effectively.
3. Students will learn to advocate for more help when they need it.

Materials

Paper, table handout, pre and post surveys, pencils, a previously graded test/assignment.

Handouts/Resource

See handout in lesson table

Procedure

1. Distribute Pre-Survey.
 2. Be sure that every student has a previously graded math test/assignment.
 3. Distribute the handout that shows the different types of mistakes and the example worksheet.
 - Give each student a copy of the sample worksheet and walk through with them how to identify the type of mistakes.
 - Show the students how to use the table handout to tally mistake types.
 4. Talk about the most common student math errors (these are 1. sloppiness, 2. careless error (e.g., $2 + 3 = 6$), 3. not remembering invisible 1s, 4. didn't memorize something, 5. expired rules (e.g., FOIL, PEMDAS, factor rainbows), 6. minus signs, 7. actually not understanding.)
 5. Students will review their graded math homework and tests and tally each type of mistake they made. Then they will use this checklist to check for mistakes while they are working. This will help them see what type of mistakes they are making. Anything except actually not understanding can be fixed by the student by checking their work. They can then focus on getting help with what they actually don't understand.
 6. Have students tally their mistakes for their next test and compare their previous tallies.
 7. Distribute post-survey.
 8. Graph the pre and post surveys. Graph the overall pre and post tally outcomes for the group.
 9. Celebrate successes.
- Plan for Evaluation: How

Plan for Evaluation: How will each of the following be captured?

Process Data

Rosters of students
Schedule for meeting in small groups

Perception Data

Pre and Post surveys to measure student's academic goal setting and student testing.

Outcome Data

Pre vs. Post survey results
Pre vs. Post tally of mistake types

Follow Up Plan for Students Who Do Not Meet Objectives

Meet after their next test to identify common errors.