

TITLE OF LESSON

Algebra 1 Unit 1 Lesson 9 – Math as a Part of Language

TIME ESTIMATE FOR THIS LESSON

One class period

MATERIALS

Pens
Paper
Markers, colored pencils
Rulers
CD/tape player (Computer with CD drive)

LESSON OBJECTIVES

- To give students an introduction to the idea that math is language
 - To increase the comfort level that students have with mathematics since by reinforcing that it is just another means of expression and communication
 - To break down the barrier between Mathematics and English
 - To give the students the sense of power that comes from being able to express oneself in various ways
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EXPLANATION OF LESSON

Math is a language. Language is used to communicate. We use math every day to communicate ideas. Much of English is interchangeable with Mathematics.

Students will be focused and motivated if they see the discussion and mathematical manipulation of variables as something they already do and something that is relevant to their lives. It is important that we continually draw from the students' experiences and relate the results of the algebraic calculations back to them. The strongest deterrent from using math is usually the sense that it is irrelevant, abstract, and meaningless. Anything we can do to counter these unfounded assertions will benefit the students. Students typically learn these ideas because math is presented to them in irrelevant abstract and meaningless manners. We want algebra to be seen as part of their lives.

FOCUS AND MOTIVATE STUDENTS

- 1) Homework Check – Stamp/initial complete homework assignments. Pass back graded work and have students place in their folders.
 - 2) [Agenda](#) – Have students copy the agenda you have posted.
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ACTIVITIES – INDIVIDUAL AND GROUP

1. List – As the students come into the classroom, have them write their homework lists on the board.
2. Discuss – Discuss the words and math ideas they have found. What does it imply that we can find these math words everywhere? When we say things like add or subtract or multiply in English are we speaking English or are we speaking math or are we speaking both at the same time. Are there things we can say in math that we can't say in English? Are there things we can say in English that we can't say in Math?
3. Media Examples – Ask the students if they can demonstrate any of these ideas in different media such as music or art or dance or movement or building something out of cubes or pencils. Let them choose anything that is available to them in the classroom.

4. Discuss – Lead a discussion on how math is part of language. How is math a part of language? How is math a representation of what we already see in the world? Ask the students to explain how math describes how things are and how they can be if variables change.
 5. Group Work – Form groups of four students. Have students assign roles (see *Group Roles* below) and come back to the class to demonstrate what they come up with. Point out that our equation for success in the class is an example of how math describes something that could change.
 6. Homework Review.
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HOMEWORK

Create your own equation about something you do over the weekend. Think about the play for tomorrow's class

GROUP ROLES

Recorder – The Recorder will record the group's ideas.

Facilitator – The Facilitator will keep group members focused on the activity.

Illustrator – The Illustrator will draw any illustrations the group needs to go with its equations.

Manager – The Manager is responsible for getting materials the group needs.

DOCUMENTATION FOR PORTFOLIO

The work they do today will be part of their classroom folder.