

## Factoring Polynomials

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### Lesson Overview

In this culminating lesson, students will produce visual representations of various approaches to factoring polynomial expressions. Students will complete a flow map to show the thought process used when factoring polynomials.

### Standards Addressed

A.ARP.3 Understand the relationship between zeros and factors of polynomials.

### Disciplinary Literacy Best Practices

Table Talk  
Concept Map  
Flow Map (Graphic Organizer)

### Lesson Plan

Time Required – One 60-minute Class Period

Disciplinary Vocabulary : polynomial, trinomial, binomial, factor, GCF, regrouping

Materials Needed:

- Chart Paper
- Markers
- Index Cards
- Glue or Tape

Assessment: Completed Flow Map

## Engage

- The teacher will model a flow map using choices made at a restaurant to order a meal.

## Explore

- Student groups will use the provided vocabulary words to create a flow map that shows the thought process used when factoring polynomial expressions. Students will write key sentences to explain their choices of connections on the flow map.
- Key Questions:
  - Why did you choose to order the words in the way that you did?
  - What other ways might you organize the words to achieve the same end result?

## Extend

- Students will create a polynomial expression that “flows” through the most index cards on their flow map.

## Teacher Reflections and Biographical Information

There are multiple ways that the students can order and organize their flow maps. It is important to allow students time to discuss in their groups the way they would approach the task. The discussion allows students to see that not everyone thinks and approaches these problems the same way. Once there has been plenty of time for discussion and students have come up with their final flow order, the teacher should ask probing questions to make them justify their choice. The teacher may want to consider assigning specific roles to students and possibly adding another discipline literacy strategy to the discussion portion of the activity to ensure that ALL students participate.

Lesson Author: Casey Davis is an 8th grade math and Algebra 1 teacher at the Middle School of Pacolet in Spartanburg School District 3 in Spartanburg, S.C. She has 5 years teaching experience in mathematics.