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| **Stage 1 – Desired Results** |

**Established Goals (Include ACOS standards in this section)**:

* **A1.8** Use the structure of an expression to identify ways to rewrite it. [A-SSE2]

**Understandings (Students will understand that …)**:

* Trinomials are of the form x2 + bx + c.
* Binomials have two terms.
* Factors are multiples of a number.

**Essential Knowledge (Students will know …)**:

* Trinomials
* Binomials
* Factors

**Essential Skills (Students will be able to …)**:

* Factor trinomials of the form x2 + bx + c.
* Find factors of numbers.
* Check answers by using FOIL.

**Essential Question(s)**:

* What career fields use factoring?
  + Engineering, chemistry, physics

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| **Stage 2 – Assessment Evidence** |

**Performance Task(s)**:

* None

**Other Evidence**:

* Exit slip – Students are given a piece of paper and asked to write down one thing they understood from the lesson, and one thing that was the most confusing. (Formative assessment)

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| **Stage 3 – Learning Plan** |

**Materials needed for the lesson**:

(Other than pencil/pen, all materials will be provided for the students by the teacher.)

* Pencil/pen
* Paper
* Elmo

**Bell ringer (if one is used)**:

* Students will answer four questions to prepare them for the lesson. The first two questions ask them which pair of factors of 8 and of 30 has a sum of 9 and -17. The third and fourth questions ask the students to multiply (x + 2)(x + 3) and (r + 5)(r – 9). (5 min)

**Review of relevant, previously learned information**:

* The review of relevant information will be covered in the bell ringer. The students should have already heard about what factors are and what sum means. The students should have also seen the FOIL method. These concepts reviewed in the bell ringer will be used in the lesson.

**Introductory Activity**:

* The students will be shown two binomials and what those two binomials equal when you FOIL them. Such as, (x + 8)(x + 2) = x2 + 10x + 16. The students will be asked to tell the teacher some similarities they seen between the two binomials and the trinomial. The students should be able to explain that the 10 comes from 8 + 2 and the 16 comes from 8 \* 2. (5 min)

**Body of the lesson**:

* Lecture over factoring trinomials. The teacher will explain the methods of factoring and remind students of what factors are. The teacher will also show the students how they can check their answers. (20 min)
  + When students are shown how to factor, the teacher will show multiple methods one can use to factor a trinomial to ensure understanding. Students will be given multiple example problems that involve factoring. The teacher will solve an example with the class before having students try an example on their own. The teacher will pose questions throughout the lesson to get students thinking about more complex problems they will see in future sections.
  + No accommodations are needed for students. (No SPE, ESL, gifted students in the class.)
  + The lesson will incorporate multiple methods. For example, students will be shown a few different ways to factor a polynomial.
* Exit slip – Students will be given an exit slip assessment as explained earlier. This will help the teacher understand what could have been taught better or differently, and how they will teach the lesson the next time. (10-15 min)

**Preview of the next lesson**:

* Students will be asked how they think a trinomial of the form, ax2 + bx + c would be factored. After hearing a few ideas, the teacher will explain that this is what they will learn the next lesson. (5 min)

**Related out of class assignment**:

* Homework problems

**Other class announcements or information**:

* None*.*