|  |  |  |
| --- | --- | --- |
|  | **Instructional Support**  *What tools or resources will students have to use in their work that will give them entry to, and help them reason through, the activity?* |  |
| **Task**  *What is the main activity that students will be working on in this lesson?* | Students will have algebra tiles to use. Since many have a good understanding of what area is, this understanding will be used to help students conceptualize multiplying to polynomials. Students will also have the resource of working with each other. | **Learning Goals (Residue)**  *What understandings will students take away from this activity?* |
| First, students will be introduced to algebra tiles. Students will then use Algebra tiles to multiply polynomials. An initial example will be done at the front of the class using the SMART Board. The class will also discuss what assumptions the creators of algebra tiles made when designing them. | Students should understand how to use algebra tiles to multiply polynomials. They should also understand the incorrect assumptions that algebra tiles imply about the value of x (that x is positive, that x is greater than one). |
| *What questions might you ask students that will support their exploration of the activity and* ***bridge*** *between* ***what they did*** *and* ***what you want them to learn*** *(the two green boxes)?*  To be clear on what students actually did, begin by asking a set of assessing questions such as: What did you do? How did you get that? What does this mean? Once you have a clearer sense of what the student understands, move on to appropriate set of questions below. |
| *What are the various ways that students might complete the activity?* | What side of the rectangle represents the value of x? How do you know? What assumptions are made about the value of x? What if x is negative? What if x is a fraction between zero and one? How does this related to finding the area of a rectangle? How do you represent each polynomial using algebra tiles? | **Evidence**  *What will students say, do, produce, etc. that will provide evidence of their understandings*? |
| Students should use algebra tiles to solve the problems given, however, some will try to use distribution and others may try to jump ahead and use F.O.I.L. The individual method in how they use the ties may vary from student to student. | Students will draw their resulting algebra tile solutions on a given worksheet. They will also complete a homework assignment that asks them to use algebra tiles to multiply polynomials. |