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| **Time** | **What Students Wil Do** | **What Teacher Will Do** | **Rationale** |
| 5 minutes | * Enter the room and take their seats * Answer starter * Extension: Answer the same questions for the other problems on the worksheet | * Hand out starter paper * Ask them to take out their worksheet from yesterday * Read the starter aloud: Looking at the first problem, answer the following questions: How can you draw your answer? How can you write your answer using a full sentence? How can you write your answer using variables and an equal sign? * Ask them to answer the questions in order. | * By asking students to think about representing their answer first using a picture, then words, and then variables, it helps scaffold their learning, moving them through a logical progression of their thoughts. It also helps students see the connection between symbols, words, and variables, hopefully making variables seem less daunting and giving them actual meaning. |
| 5 minutes | * Share answers to starter * Come to Elmo to show pictures | * Ask for volunteers * Record student answers on the board | * This gives students the chance to see how their classmates interpreted the starter. Hopefully the class will have come up with a few different answers, which will reinforce the idea of multiple representations |
| 4 minutes | * Answer the starter questions for the other two problems on the front side of the worksheet * Talk with groups | * Ask students to work with their groups to answer the same questions for the other two problems on the front side of the worksheet * Circulate around the room | * Students have the opportunity to practice using pictures, words, and variables |
| 6 minutes | * Each group will share one of their answers so that, in the end, all of the representations have been covered | * Call on groups to share * Record answers on board * Make sure there’s a group consensus that each answer is correct | * Now that students are doing this for the second time, they will need to check each other’s answers, which will help solidify their own understanding |
| 5 minutes | * Finish the pyramid problem if they didn’t yesterday * Extension: Answer the starter question for parts a and b | * Ask them to finish the pyramid problem * Circulate around the room and provide support | * Some groups might not have finished the Jolly Rancher problem yesterday, so this gives them time to catch up. |
| 5 minutes | * Compare answers with another group   + Make changes if necessary in colored pencil * Hand in worksheet | * Pair up groups and have them check their answers with each other. Tell them I’m going to collect the worksheet and grade for accuracy so they need to make sure they have the right answers. * Ask them to make any changes in colored pencil so that I can tell what they changed. Emphasize that making changes is not a bad thing; collaboration often leads to new understanding, which the colored pencil will reflect. * Collect worksheet | * By asking students to check each other’s work, they become responsible for their peers’ learning. |
| 15 minutes | * Work individually on the packet * Extension: Choose one problem from the packet and compare your equation for your original scenario to your equation for your answer. What do you notice? Now look at your pairs of equations for other problems. What similarities and differences do you notice in all of them? | * Hand out algebra balance scales packet * Explain that they’re going to focus now on using variables to represent each balance * Go through the first one with them. Model how they should write two equations: One describing the scenario and one describing the answer. * Tell students to complete the packet individually * Circulate around the room | * This packet exposes students to more balance problems, which will make them more comfortable solving them. * By focusing on writing equations, it gets students used to using variables * The extension will get students thinking about what it means to actually solve an equation (i.e. isolate the variable), which is what the next unit will discuss |
| 7 minutes | * Share answers with the class * Fix work if necessary in colored pencil * Hand in packets | * Ask for volunteers to share answers aloud * Tell students to fix their equations in colored pencil if they realize that they messed up * Collect packets * HW: Ask someone in your family what they have to keep balanced in their life | * This ensures that everyone has the correct equations |