1. **Title and Grade Level:** Making Ten to Subtract, Grade 2
2. **Lesson Essential Question(s):** How can making 10 help you subtract from numbers greater than 10?
3. **Standards:** 2.OA.2 – “Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.”
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| **Learning Objective(s)** | **Assessments** |
| 1. SWBAT use the strategy of “making 10” to subtract within 20.
 | **-** Students will use counters and a double ten frame to model and complete subtraction problems using the strategy of “making ten.”- Students will use drawings to show how they can subtract using the strategy. |

1. **Materials:**

Students’ workbooks for lesson 3-5

Baggie of counters for each student pair

Double ten frame sheets

Online Envision Video for lesson 3-5

Digitized Envision teacher’s edition of lesson 3-5.

1. **Pre-lesson assignments and/or prior knowledge:** The students have been learning addition and subtraction strategies over the last month, including 0, 1, and 2 more than/less than; doubles; near-doubles; related facts; and making 10 to add. Every day they also practice basic addition and subtraction facts with math games and/or with non-graded timed quizzes to encourage the development of automaticity. The strategy they are studying in this lesson is essentially the reverse version of the making 10 to add strategy, which I taught them last week using the same double ten frames and counters. They are familiar with the materials and with the concept of “making ten,” but they have not yet deliberately used it to subtract.
2. **Lesson Beginning:** To open the lesson, I will try to get the children to bring their prior knowledge to mind by very briefly questioning the class on the subtraction strategies they have been studying so far this week. I will introduce the new topic of making 10 to subtract, connecting it to their previous experience with making 10 to add. I will provide students with the rationale that they may find this strategy useful because it allows them to break apart a larger problem into smaller, more manageable units. We will gather together on the carpet in a circle, and I will distribute ten frame sheets and baggies of counters to the students so that they are working in pairs with the person next to them. We will do an example problem together, so that everyone is coordinated and I can provide them with a model of how to use the strategy. I will give a problem such as, “There are 12 birds in the tree. Please put 12 counters out on your ten frames. How many should go in the first one? (10) How many do we need in the second ten frame? (2) Now, 5 of the birds flew away. What is our subtraction sentence? (12-5) We know that we can take these two away to make 10, so let’s do that together. What subtraction problem did we just do? (12-2=10) Now, we just took away 2, but 5 birds flew away, so we still have to take away 5 in all. How many more do we have to take away so that we’re subtracting 5? (3) Let’s take 3 away from 10. What subtraction problem did we just do? (10-3) What are we left with? (7!). So to subtract 5 from 12, first we did 12-2 to make 10, then we did 10-3 to make sure we were taking away 5,” etc. Students will return their baggies and ten-frame sheets and quietly go back to their desks.
3. **Instructional Plan:**

Video: I will select a student at random (using the jar of popsicle sticks) to operate the computer for the lesson video (a classroom tradition). As we watch the video, I will make sure students are attending to its concepts by encouraging them to respond when appropriate. I will also pass out the lesson workbooks and counters during this time.

First Page: Student pairs will be asked to take out their one ten frame sheet (which they should have in their folders) per pair and reminded not to open their baggie of counters until the first number is picked. I will bring up the interactive version of the lesson workbook on the smartboard so that they can see a model of what they are to do. I will pick students at random to choose from a stack of subtraction fact cards to provide us with the problems on the first page (the lesson workbook leaves the numbers up to the user on this page). Students will arrange their counters to represent the problems (while I represent them with little circles on the smartboard), and we will solve the problems together. Throughout all seatwork, I will be circulating around the room, helping students who need help and ensuring all are on-task. The classroom aide Mrs. B will also be assisting with those who need a little more individual attention.

Guided Practice: Student pairs will work together with the manipulatives as before, and we will solve the problems together as a coordinated group. I will try to encourage the students, through questioning and thinking aloud, to see the usefulness of the strategy, e.g. “16-7. Hmm … Well, I know how many I need to subtract to make 10. How many is that? (6) And then since I’ve already taken 6 away, I only need to take away 1 more to make sure I’m subtracting 7. That leaves me with a super easy one-less-than problem --- 10-1!” I will ask the students if any of them thought of a different way of finding the answer, too, because I am sure some of them will simply count back, and it is important for all to understand that the same amount is being taken away whether or not you break up the problem.

Independent Practice: Students will work by themselves on this section. I will collect the counters at this point except for those of students who still want to use them, and encourage the rest to draw pictures to help them solve the problem (as I will have modeled how to do on the smartboard during the previous pages).

1. **Closure:** (NOTE: Because students take their math workbooks home at the end of the day, Mrs. Pellichero and I must check each page of each students’ workbook after each section of the lesson to ensure that they have done their work correctly, so we will be doing a lot of this as students finish.) I will have students stand up and stretch and move a little, as they will have been sitting for 45 minutes or so at this point. I’ll have them tell me what strategy we just learned, and then we will do some “jumping math,” doing a subtraction problem aloud and jumping as we count. If there is time left, we will gather on the carpet to play math fact games for extra practice (a Friday end-of-day tradition).