Working with Teens!

Standard: **CA –** Kindergarten Number Sense 1.2: Count, recognize, represent, name, and order a number of objects (up to 30).

CaCCSS – Kindergarten Number and Operations in Base Ten 1: Compose and decompose numbers from 11 to 19 into ten ones and some further ones by using objects or drawings, and record each composition or decomposition by a drawing or equation; understand that these numbers are composed of ten ones, two, three, four, five, six, seven, eight, or nine ones.

Objective: Identifying and recognizing teen numbers using ten frames and linker cubes.
Using the Build it, Draw it, Write it method to decompose teen numbers.
Play memory activity to re-enforce teen numbers.

Introductions: Today, I will show you a few different strategies to help kindergarteners and 1st graders recognize teen numbers and help them build their understanding of teen numbers with decomposition.

Unfortunately, the English Language makes it difficult for kindergarteners to identify and count the teen numbers because teens do not follow the same naming convention as the twenties, thirties, etc. So it is very important to provide kindergarteners and 1st graders different strategies and opportunities to practice the teen numbers.

Today, we will take a look at using ten frames (which give students a 2-dimensional perspective), and linker cubes (which give students a 3-dimensional perspective) to identify and recognize teen numbers. We will then use the Build it, Draw it, and Write it method to decompose the teens. Finally, we will play a game to help students recognition of the teen numbers.

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Ten Frames and Linker Cubes

Ten Frames: Use ten frames to introduce teen numbers. Let students know that teens are very special numbers. A recommendation would be to start with 19 and work backwards.

Display a ten frame with 10 dots and ask, "How many dots do I have?"
Display a ten frame with 9 dots and ask, "How many dots do I have here?"
"When put them together, we get nineteen. We call the ten teen."

Do the same for the rest of the teens and emphasize fifteen, thirteen, twelve, and eleven has extra special names.

Assign student to partner groups. Have one student build a teen and the other student name the teen.

Linker Cubes: In a different lesson, tie in linker cubes with ten frames. Give students 20 linker cubes.

Display the ten frames for 19. Show students how to match linker cubes to each dot. Once you display 10 linker cubes on the ten frame with 10 dots and 9 linker cubes on the ten frame with 9 dots, put the 10 cubes into a tower and let students know that it is the tower of 10. Emphasize to students 10 cubes make a tower, nothing more, nothing less.

Connect back to the ten frames and show students 1 tower, or 10 cubes, and 9 cubes put together makes 19. Show students that 10 cubes plus 9 cubes equal 19, so we can also write it as 10+9=19

Do the same for the rest of the teen numbers.

Build It, Draw It, Write It

Students can create their teen number books with a picture representation and an expression showing decomposition by 10's for each teen number.

Build It Provide students with linker cubes. Review the tower of 10 where 10 linker cubes make a tower. Ask students, "How many more cubes do I need to make 19?" Students should tell you 9. Have students to make 19 using their linker cubes (can be individual or partners).

Draw It After students build 19 with their linker cubes, Have them draw it out. Emphasize to student to draw the 10 tower and 9 more.

Write It Use the drawing you just made to direct students on how to write the expression. Point to your 10 tower and ask:
You: "How many towers do I have?"
Students: "1"
You: "Yes, I have one ten tower. How many cubes make up a tower?
Students: "10"
You: "Yes, so we are going to write the number 10 to represent the tower. Now what number will represent the rest of the cubes?"
Students: "9"
You: "Yes, so we can write 10+9 to represent our cubes. Now when we add 10 and 9 together, what does it equal?"
Students: "19"

Have students write 10+9 under decomposition and the number 19 under number. Do the same for the rest of the teen numbers.

After you have done all the teen numbers, point out to students the 10 tower represents the one in the ten place and the other cubes represent the number in the ones place.

Draw Linker Cubes	Decomposition	Number

Memory Match-Up Game

Materials -18 index cards (with no lines) per game set
-Color pencils or crayons (markers can see through the index cards)

Directions You can create the game cards with your students. Put students in pairs and each pair can make a game set. You will need to assign each student in each pair certain numbers to work on.

First, give each pair 9 index cards. Have them write the numerals from 11-19 on each card.

When students are done with their numerals, handout the other 9 index cards to each pair to make the quantity cards. Have students draw the picture representation (linker cubes) for each teen number on the index cards. For example, draw a ten tower and 5 cubes on an index card. This is the quantity card to match with the numeral card for the number 15.

Once all the game cards are made, direct instruct students how to play the game. Have a volunteer to demonstrate playing the game with you.

First, mix up the cards. Lay the cards on the table facing down. Make three rows with six cards in each row.

Pick two cards to turn over. If the cards are a match (the numeral cards matches the quantity on the other card), you can keep the pair. If the cards are not a match, both cards must be turned over and returned to their original positions. Then the next player takes a turn.

Keep playing until all the matches have been found. The players with the most pairs win that round.

Enhancement Take nine index cards and write the decomposition form for each teen number (i.e. 10+5 for the numeral 15). Replace the decomposition cards with the quantity cards. Students can play the game by matching the expression for numeral.