Big Idea: Partitioning ~ Exploring part/part/whole

Curricular Competencies:
Understanding and Solving
Applying mathematical understanding through play, inquiry and problem solving

Learning Targets:

Inclusion	Numeracy
For ALL	I can represent my math thinking with counters and using pictures.
For Some	I can write my story as an equation using numbers and symbols.
For a Few	I can represent my math thinking with a number two more or two less.

Content: Using addition and subtraction in real-life context and problem based situations.
Provide opportunities for concrete and pictorial representations of flexible partitioning.

Before Dot Card Number Talk
Begin with a dot card Number Talk (for example, an arrangement of 6). Invite students to consider, "How many do you notice?" and record their responses. Next, invite students to share their thinking, "How do you see them?" Record their responses visually and as a number model.
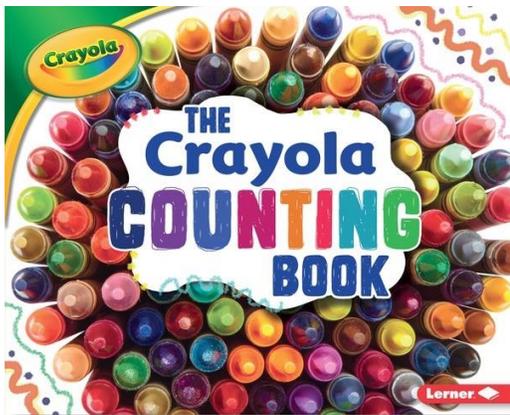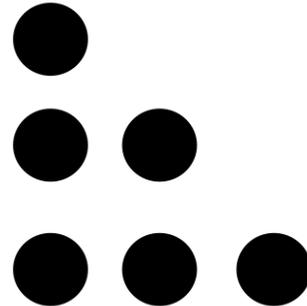
During Crayon Partitioning

Establishing a Need to Know**: Read The Crayon Counting Book**. Invite students to investigate the book for the math around counting principles. Record student observations in a two column chart using the frame "What did you notice? What do you wonder?"

Introduce a real-world situation/task: Christmas Shoe boxes are filled with wonderful things like pens, pencils and sharpeners, crayons, markers, notebooks, paper, calculators, colouring and picture books ahead of the Christmas Season and sent to children throughout the world. Here today we have two shoe boxes and inside so far *just one box* of crayons.

Imagine *you* have two shoe boxes and a pack of 12 crayons to share between the two. What are all the ways to share 12 crayons in two boxes?

Driving Question: What are all the ways to share 12 crayons into two Christmas boxes?

Walk around and give students a handful of bingo chips, telling them they will need 12. Students will raise their hand if they need more bingo chips.

Some students may begin abstractly in conversation with the teacher, others will work with the 12 and determine just one combination (6+6). Keep prompting only as necessary "Is there another way if the crayons do not have to evenly be shared?"
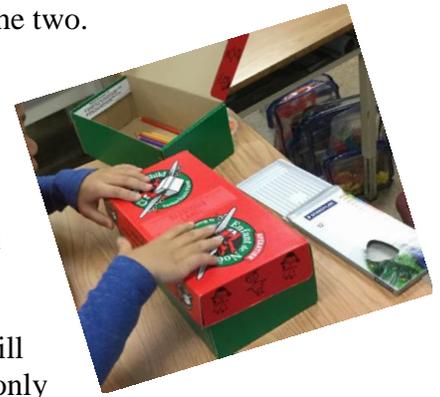
From working with concrete materials now ask children to draw their representations in order to communicate their thinking on a a non-permanent surface using pictures, numbers and words. (OR paper may also be used as evidence of their mathematical solution)
First Steps in Math Diagnostic Task
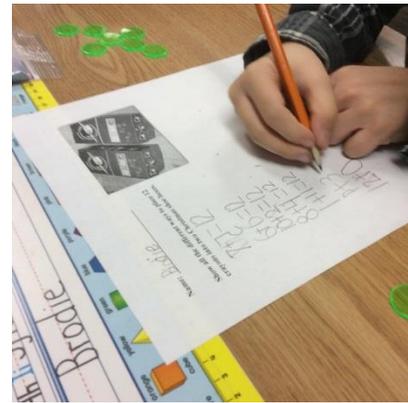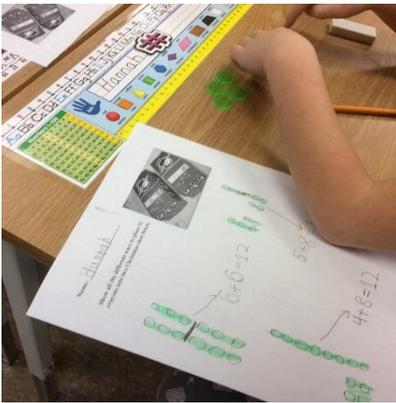
After

Students work in pairs with one Finger Twister board between them. (youcubed.org WIM Day 1). We've adapted the game to a "three finger version" so teacher needn't call directions.
Students each place index finger on the board and then call another colour shape and finger for their partner to place on the board. Game is over when each A/B partner has placed 3 fingers.

Remind students of the video messages they heard - that there is no such thing as a math brain or a math person and anyone can learn any level of math with hard work and efforts.

Lesson adapted from youcubed.org Weekly Inspirational Math 2 - Day 1

Name: _____

Show all the different ways to place 12 crayons into two Christmas shoe boxes.