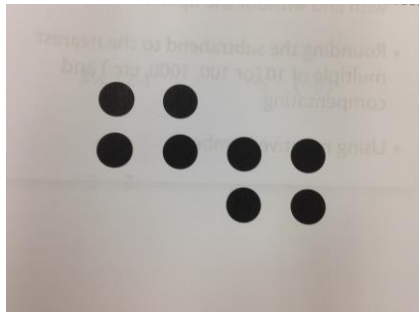




Learning Target: I can show my thinking in pictures, numbers and words.

Dot Card Number Talk: Invite students to look at the dot card and, without counting one by one, figure out how many dots there are. (Reminder to students to have their fists in a discreet position and put up a thumb when they think they know how many dots there are). Then, show the dot card. When most thumbs are up, invite willing students to share how many dots they see. Gather several answers on the board. Next, invite students to describe how they saw it. Consider how best to record each way of seeing. Paraphrase student responses, ask questions to clarify, and record students' thinking in pictures and numbers.



(from p.14-15 in Making Number Talks Matter, Humphreys and Parker, 2015)

Number Talk: Invite students to look at the equation, and without pencil and paper, figure out the answer. (Reminder to students to have their fists in a discreet position and put up a thumb when they think they know the answer). When most thumbs are up, invite willing students to share their answers. Gather several answers on the board. Next, invite students to describe how they solved it. Consider how best to record each way of seeing and solving. Paraphrase student responses, ask questions to clarify, and record students' thinking in pictures and numbers.



A Three Act Task: Bright Idea

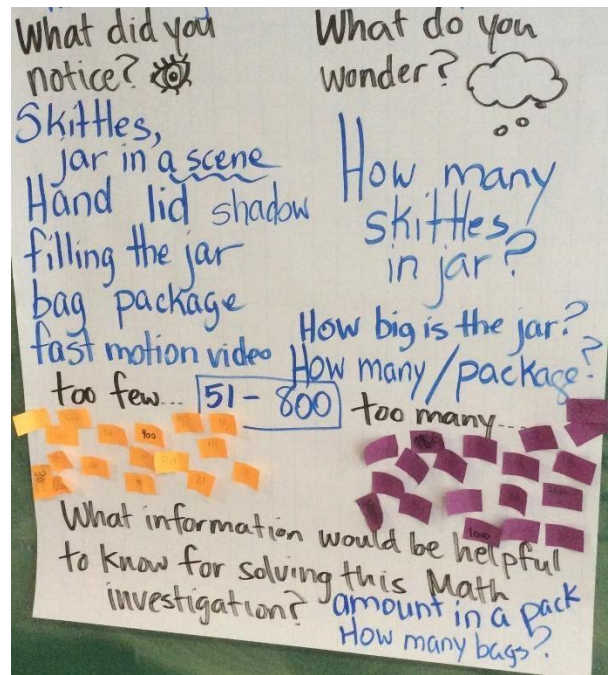
<https://gfletchy.com/bright-idea/>

(Bring in small packages of Skittles to hand out at the end of this lesson)

ACT ONE: Watch the 31 second clip. As a whole group, invite students to think about and share what they noticed in the clip and what they wonder, and record their ideas.

What did you notice?	What do you wonder?
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How many Skittles will fit inside the lightbulb? Any suggestions? (Discuss the difference between an observation and an estimation). Invite students to estimate how many Skittles they think are in the jar come up with a *too low estimate* and a *too high estimate*. An estimate is a wonder! Students write their estimates on two different coloured post-its and walk them to the chalkboard. Teacher arranges the post-its in an array.



A too low estimate:	A too high estimate:
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Scanning the estimates, collectively identify the range - the lowest estimate in the class and the highest of the estimates in the class.

Next, invite students to think about and share information they believe would be useful to know for solving this problem. Record ideas shared.


Arrange Random Groupings - model using an array to randomly sort students into groups of three.


ACT TWO: Looking at the photograph, invite students to first consider how many colors of Skittles there are and how many of each fit in the lightbulb.


In random groups of three, using the vertical nonpermanent surfaces, invite students to figure out how many skittles filled the lightbulb. Students are encouraged to show their thinking in pictures, numbers and words.

ACT THREE:


Share the video clip. Observe the strategy modelled for figuring out how many Skittles were in the lightbulb.


 **-19 yellow**

 **-15 orange**

 **-19 green**

 **-17 purple**


 **-21 red**


 **-19 yellow**


 **-15 orange**


 **-19 green**

 **-17 purple**


 **-21 red**


 **-19 yellow**

 **-15 orange**


 **-19 green**

 **-17 purple**


 **-21 red**

 **-19 yellow**

 **-15 orange**

 **-19 green**

 **-17 purple**

 **-21 red**