open-ended problems for primary math

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Part-Whole Thinking

I have 5 berries in my basket.

Some are strawberries.

Some are blueberries.

How many of each could there be?

How many ways can you find?

Part-Whole

How many ways can you make the yellow rod?

What equations can you write?

One is a Snail...

There were 10 feet on the beach. What creatures could there have been?

How can you show your thinking with your rods?
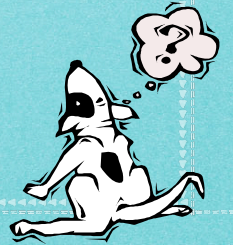
Fractions

I took a handful of M&Ms.

One third of them were red.

What might my handful look like?

How would a mathematician represent it?

Feet!

How can you figure out how many feet are under the table?

How can you figure out how many feet are in the room?

How can you...?

How can you find the difference between 19 and 24?

How would a mathematician record it?

The picnic problem

My mom has 12 quilt squares.

What rectangular quilts can she make?

How many ways can you find?

What numbers would you use to explain your idea?

Square numbers

How can you use materials to show the square numbers?

What do you notice?

How many ways...

There are 14 wheels in the farmyard.

What vehicles might there be?

How many ways can you find?

The bicycle problem

▷ Which has more wheels?

▷ 3 trikes or 4 bikes?

What do you know about...

What do you know about the number 2?

How can you show what you know?

More problems...

- The difference of 2 numbers is 5. What might the numbers be?

- How can you find the sum of 3+5+2+8+7?

- How many ways can you show 11?

- How can you sort these numbers? 2, 14, 3, 12, 7, 11, 16

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