## 40 Weeks of Math Challenges



These visual math challenges have been created to intrigue and inspire your children. They are designed to be hands on, open-ended inquiries, to challenge them to think deeply about the world around them.

Each week a new set will be released with four levels.

- Preschool
- Years $1 / 2$ (approx. age 6-8)
- Year 3/4 (approx ages 8-10)
- Year $5 / 6$ (approx. ages 10-12)

I hope you enjoy exploring the ideas with your children! The challenges don't require any special resources, however your children will need a 'Math Journal' to record their discoveries. Any notebook will work, but if you can, try to encourage them to use a Grid book.

You are welcome to freely print these cards for your family but please respect our creative copyright and link back to the original file on our web page to share with others. Thanks, Jo

## Estimation

Definition:

## To find a value that is close enough to the right answer, usually with some thought or calculation involved.

1. Look at the picture, what do you notice? What do you wonder?
2. Sometimes I wonder how many things I can see, and I try to guess without counting. How many mushrooms growing in a field? How many sheep in a paddock? How many ducks on the pond?
3. Grab a handful of blocks and guess how many you have grabbed? Now count them. Were you close? Practice guessing how many things there are and then count to see how close you can get. The more you play this game the better you will become at estimating amounts!


## Challenge 29

## Estimation

Definition:

To find a value that is close enough to the right answer, usually with some thought or calculation involved.

1. Look at the picture, what do you notice? What do you wonder? How many seeds do you think are in this pawpaw?
2. Sometimes I wonder how many things I can see, and I try to guess without counting. How many mushrooms growing in a field? How many sheep in a paddock? How many ducks on the pond?
3. You can get better at estimating by practicing. Over time you will have a memory of what an amount of something looks like. You are not really guessing you are using information that you have.
4. In your journal draw groups of dots. What does one dot look like? Ten? Twenty? One hundred?


## Estimation

Definition:

To find a value that is close enough to the right answer, usually with some thought or calculation involved.

1. Look at the picture, what do you notice? What do you wonder? This is an example of silo art. The silos are huge! And the paintings are amazing! Can you estimate the size of this painting?
2. Estimating is sometimes described as guessing, but it's not really guessing. It's using the information you have, to come to an answer which is close to the exact amount. To estimate ask: What information do I have? How can that help me find the answer? What information can I gather, to help me find out the answer?
3. Look at the picture, what information would help you estimate the size of the painting?


## Estimation

Definition:

To find a value that is close enough to the right answer, usually with some thought or calculation involved.

1. Look at the picture, what do you notice? What do you wonder? I wonder how much water flows down the waterfall each hour.
2. Estimating is sometimes described as guessing, but it's not really guessing. It's using the information you have, to come to an answer which is close to the exact amount. To estimate ask: What information do I have? How can that help me find the answer? What information can I gather, to help me find out the answer?
3. Look at the picture, what information would help you estimate the amount of water flowing down the waterfall?

