40 Weeks of Math Challenges

Week 35

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

Find me on Instagram @jo_mathinnature and Nature Study Australia

Exponential Growth

Definition:

The total amount keeps increasing in proportion to the current amount.

1. Enjoy this story about a grain of rice!

<u>A Grain of Rice</u>

Or read A Grain of Rice by

Helena Clare Pittman

Exponential Growth

Definition:

The total amount keeps increasing in proportion to the current amount.

1. Have you every tried to keep weeds out of a garden? They just keep growing until they take over, right? Well that's what exponential growth is. You keep getting more and more!

2. We see exponential growth when the amounts, or population, of animals or plants keep growing. Like a plague of mice or rabbits, or weeds taking over your garden.

3. Find out more about the rabbit problem in Australia and why predators can help stop

Exponential Growth

Definition:

The total amount keeps increasing in proportion to the current amount.

1. Look at the picture, what do you notice?

2. Water lilies can reproduce rapidly covering a pond in a few weeks.

3. Think of how populations of things grow in nature. Can the number of lilies in this pond keep multiply forever? Why?

4. Think about what things could stop exponential growth in nature and what would happen if they didn't.

Exponential Growth

Definition:

The total amount keeps increasing in proportion to the current amount.

1. Look at the picture, what is being shown?

2. Is the Fibonacci sequence in nature an example of exponential growth?

3. Think about what things could stop exponential growth in nature and what would happen if they didn't.

4. Write about examples of exponential growth in your math journal.