

# 40 Weeks of Math Challenges

## Week 20



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

# Volume/ Capacity

Definition:

Volume is how much space an object takes up.  
Capacity is how much an object can hold.

1. Look at the picture, what do you notice?
2. I can fill a babushka with chick peas. The amount it can hold is its capacity.
3. Find some containers and have fun filling them with dried beans or chick peas. Which containers have the greatest capacity?



## Challenge 20

1/2

# Volume/ Capacity

Definition:

Volume is how much space an object takes up.  
Capacity is how much an object can hold.

1. Look at the picture, what do you notice?
2. Which containers have the most liquid in them?
3. Collect different size jars, glass or containers. Measure 100ml of water and pour into each container. Write about what you notice in your math journal.



# Volume/ Capacity

Definition:

Volume is how much space an object takes up.  
Capacity is how much an object can hold.

1. Look at the photo. What unit of measurement is used for Volume? What unit of measurement is used for capacity?
2. Can you think of an object that has the same volume as its capacity? Can you think of an object that has a different capacity to its volume?
3. Think about it like this: solid objects all take up space, this is their *volume*. The amount that you can fit into an object is its *capacity*. A rock has volume but no capacity, a jug has volume AND capacity.



# Volume/ Capacity

Definition:

Volume is how much space an object takes up.  
Capacity is how much an object can hold.

1. Look at the picture, decide if a shell has both volume and capacity. Is the capacity the same as the volume?
2. Gather some objects and decide if their capacity is always, sometimes or never the same as their volume.
3. Write about your findings in your math journal.

