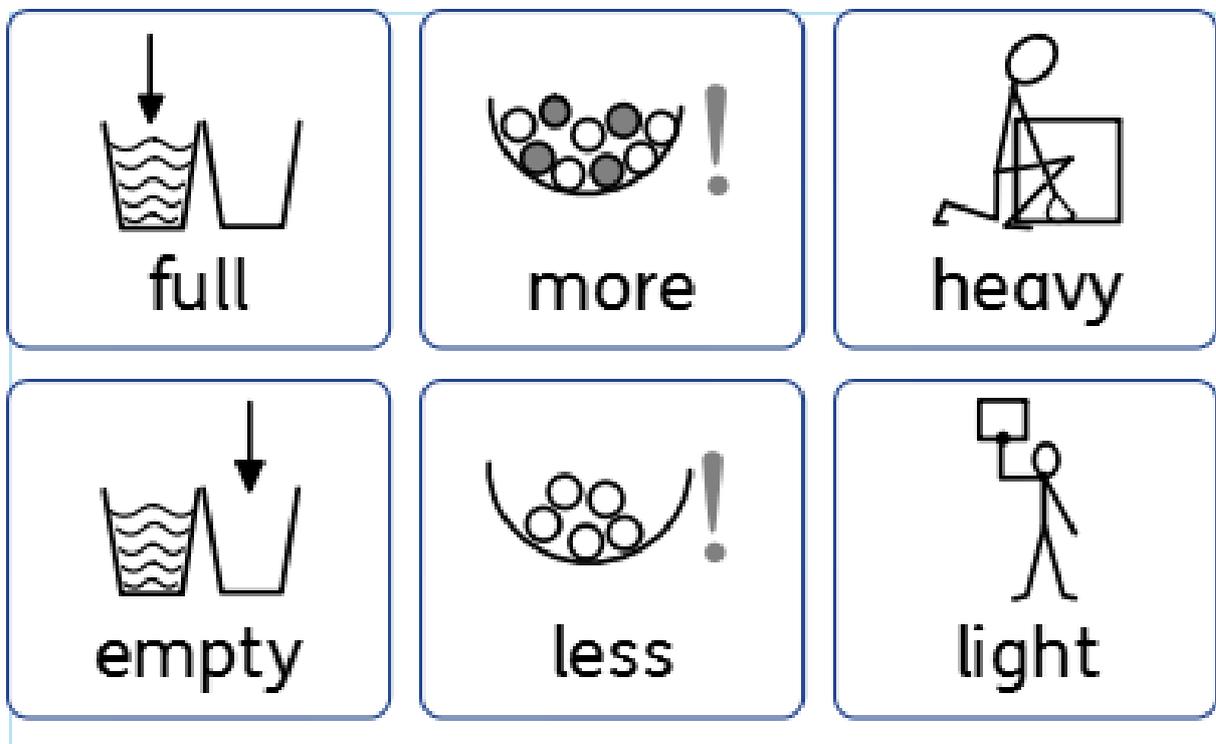


Ideas for Exploring Weighing, Measuring and Volume in Maths.

Students can learn by exploring and observing the way things work by joining in a range of maths play activities.

The idea is to create opportunities to explore similarities and differences. Where appropriate support this exploration using simple vocabulary such as full, empty, heavy, light, more, less but the main emphasis is on the exploration learning and having fun.



I hope you have fun with these activities and if you have any photos you would like to share or any other ideas for exploring maths then we would love to see them thowarth@charltonparkacademy.co.uk

Make Sensory Bags



Make a selection of pairs sensory bags filled with different materials.

To make them stronger tape the edges. They can be filled with liquid or dry materials. If your young person has particular favourite things, then use these in the bag.

- Full and empty – vary the amount of liquid inside but keep a constant number of objects.
- Heavy and light – try to find 2 materials that will give a similar volume but different weights i.e. polystyrene beads and rice.
- More and less – keep the volume of liquid the same but put different numbers of objects inside it.

Make A Balance Scale and Weigh Different Materials



<https://earlylearningideas.com/diy-balance/>

Make a simple balance with recyclable materials, you can glue a toilet paper tube onto the bottom of the shoe box lid or for a stronger option try a piece of dowel with a board. Add little cups to each end of the balance to hold objects or materials if you want to.

Use the cardboard balance to experiment with toys and materials to help your young person to begin to understand concepts weight.

You can use any kind of objects with the balances. Think about high-interest items that will be most exciting for your young person.

Place some small cars on a tray with a balance to let your young person experiment with it as a ramp. Provide ramps of different lengths. How do the cars react differently? Add different materials to the top of the ramp (sandpaper strips, shelf liner, foil, etc.) What happens?

Make A Coat Hanger Balance



<https://kidsactivitiesblog.com/17228/science-for-kids-hanger-balance>

Create a simple balance using a two yoghurt pots attached to three strands of yarn each and hung from a coat hanger. This balance can then be hung from the knob of a kitchen cupboard or a door handle.

See if you can make different items balance or use the balance to see which items are heavier. Take the balance outside and see what you can find to place in the balance there.

Exploring Volume

These activities will give your young person the opportunity to explore that volume is the space a substance or object takes up. It will provide opportunities to observe the differences and similarities among the containers when they pour the water and compare the results.

Pouring or scooping into a container helps:

- hand-eye coordination
- strengthen hand and arm muscles for pouring drinks into a glass with more accuracy
- grasping objects with more proficiency

Fill to The Line

exploring full vs. empty and how much space a certain amount of pom poms takes up.



This sensory maths activity will also help your young person hold their hand steady as they pour the pom poms into each container in order to reach the line.

Explore using different size scoops and materials to fill the bottles.

Exploring the Volume of Different Containers

Explore the concept of volume, size, and capacity with just a few simple materials. This simple measurement and math activity is a fun way to introduce volume and includes great fine motor skills practice!

Comparing the size and capacity of various containers is a practical way for students to learn about volume.



Explore the capacity of a variety of different size containers by pouring water (or another material) between the containers.

If you have used some larger containers, you can extend the activity by seeing how many more cups of water will fit into each of the containers. Even if a container overflows, it is a great opportunity to show what happens when the volume of water is greater than the volume of the container!