

This week, Maths learning focuses on talking about **Mass and Capacity**. Using and developing language associated with these and exploring and comparing these. This is a really practical topic that you can explore in any way at home using everyday items around the home! The children always love this at school! I have included guidance of EYFS learning and activity ideas- but please feel free to explore in other ways and follow the children's interests and ideas too. Please pick and choose. I have put a few PowerPoints and paper based activities linked to this to use as appropriate.

## Mass

### Guidance

Children may already have some experience of weight through carrying heavy and light items.

Encourage them to make direct comparisons holding items to estimate which feels the heaviest then use the balance scales to check. Prompt them to use the language of heavy, heavier than, heaviest, light, lighter than, lightest to compare items starting with items which have an obvious difference in weight. Avoid the common misconception that bigger items are always heavier by providing some small, heavier items and some large, lighter ones.

## Capacity

### Guidance

Encourage the children to build on their understanding of full and empty to show half full, nearly full and nearly empty. Provide opportunities to explore capacity using different materials such as water, sand, rice and beads.

Provide different sized and shaped containers to investigate. Prompt them to use the language of tall, thin, narrow, wide and shallow.

Encourage the children to make direct comparisons by pouring from one container into another. They can also use small pots or ladles to make indirect comparisons by counting how many pots it takes to fill each container.

**Activity ideas below or there are some online lessons from the Oak academy website if you prefer.**

## Activity ideas – Weight

Give the children an item, for example, an apple. Challenge them to find things which feel heavier and lighter than the apple and sort them into sets. Use the balance scales to check their estimation. Are all the heavier things larger than the apple? Can they find anything which is larger than the apple but lighter?

If you do not have scales, put an item in each hand and compare the weight.

Can the children help to follow a recipe and be involved in weighing ingredients?

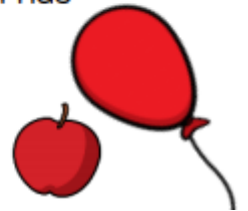
You could make play or salt dough. This could then be used for lots of home learning and is brilliant for fine motor skills.

### How to Set up the Challenge

- Fill two shopping bags, one with many small items and the other with one or two larger empty or light boxes. Do not tell your child that the boxes are empty.
- Show your child the two bags and ask them to look inside without touching.
- Ask your child to predict which bag they think will be the heaviest and why.
- Allow your child to pick up the two shopping bags and ask them to show which bag is heaviest by moving their arms like weighing scales.



Ask the children to be human balance scales – place an item on each hand and ask them to tip to show which item is heavier and which is lighter. Use the balance scales to check the children's estimations. The children could also hold buckets or bags in each hand and place items inside to feel which has the stronger downward pull.



**Weight: Oak Academy lesson**  
<https://classroom.thenational.academy/lessons/using-everyday-language-to-compare-and-explore-weight->

## Capacity ideas

Provide a selection of containers of different shapes and sizes and ask the children to investigate which holds the most. They may do this by pouring directly from one container to another. They could also use a small cup to fill each container, counting how many small cup-fulls the containers hold. Encourage them to record their results using their own methods of recording.



You need to find a collection of jars and bottles of different sizes and shapes, like those in the picture below:



I wonder which holds the most/least liquid?  
Use estimation first of all.  
How could you find out? Explore!

Can you find a way of counting how many "small container-fulls" each will hold?  
Can you find a better way?

Provide sets of similar containers in different sizes such as sets of nesting bowls or boxes. The children will enjoy comparing and ordering them and seeing how many loose parts such as beads, cubes or corks they will hold.

Explore language - full, empty, half full, nearly empty etc. Can your child fill the containers following these instructions. Can they compare/order the containers?

**Capacity: Oak academy lesson**  
<https://classroom.thenational.academy/lessons/using-everyday-language-to-compare-and-explore-capacities-6rv62d>

## Digging Deeper

### Number Shapes Balance

Provide a set of balance scales and some number shapes. Explore how to balance a number shape for example 5 by putting the 5 piece on one side of the scale and exploring different combinations to make it balance.

How many different ways can they find to balance 5?  
What other combinations of shapes balance?



Encourage the children to use the language of equal to, heavier than, lighter than, heaviest, lightest.

### Key Questions

What happens if I put a 5 piece on one side of the scale and two 3 pieces on the other?

Which is heavier, two 2 pieces or one 5 piece?

Which is the heaviest number shape? Which is the lightest?

How many ways can you find to balance 5 exactly?

Can you find ways to balance 4 or 3?

### Which Holds More?

Provide a tall narrow container and a wide shallow one. Ask the children to predict which will hold more water? How could they check? Encourage the children to try different methods.

More containers could be added and the children asked to order them from smallest capacity to greatest.

