

## **Year 1 Maths Toolkit Activities- CAPACITY**

### **Activity 1 – Introducing ‘empty’ and ‘full’**

#### **Activity Approach**

- Groupwork

#### **Resources**

- Activity Sheet 1.1
- Resources 1.1 - flashcards ‘empty’, ‘full’
- Powerpoint Presentation – Capacity Full or Empty (<http://www.primaryresources.co.uk/maths/mathsE1.htm#capacity>)
- Posters 1.1: empty bottle, full bottle ([sparklebox.co.uk](http://www.sparklebox.co.uk) – Capacity posters - [www.sparklebox.co.uk/thumbs686-690/sb688prev.html](http://www.sparklebox.co.uk/thumbs686-690/sb688prev.html))
- An empty bottle and a full bottle of water

#### **Instructions**

1. Show the pupils 2 bottles - one full of water and one empty.
2. Look carefully at these containers: ‘*What’s the difference between these bottles?*’
3. Stick the flashcard ‘full’ to the container full of water and ‘empty’ to the empty container.
4. View the Powerpoint Presentation – Capacity Full or Empty (<http://www.primaryresources.co.uk/maths/mathsE1.htm#capacity>)
5. Give empty cups and a bottle of water to each group.
6. Fill some cups with water and leave some empty – identify the full/empty cups.
7. Stick the empty bottle, full bottle posters in Capacity display.
8. Take out Activity Sheet 1.1 and match the full/empty containers with the correct heading.

## **Year 1 Maths Toolkit Activities- CAPACITY**

### **Activity 2 – Recognising the concepts of ‘full’, ‘empty’ and ‘half full’**

#### **Activity Approach**

- Groupwork

#### **Resources**

- Posters 1.2: half-full bottle ([sparklebox.co.uk](http://www.sparklebox.co.uk) – Capacity poster- [www.sparklebox.co.uk/thumbs686-690/sb688prev.htmls](http://www.sparklebox.co.uk/thumbs686-690/sb688prev.htmls))
- Dry filling material (e.g. lentils, sand, peas), plastic spoons, cups, whiteboard markers
- Activity Sheet 1.2
- Flashcards ‘empty’, ‘full’ ‘half-full’ on display

#### **Instructions**

1. Show the pupils 2 empty cups and instruct a pupil to fill a cup with lentils.
2. Teacher asks, ‘*Which is the empty/full cup?*’
3. Pour the lentils from the full cup into the empty cup and mark both cups ‘half-full’, using a whiteboard marker.
4. Provide each group with a packet of lentils, empty cups, plastic spoon and marker.
5. Fill half of the cups with lentils and mark the level using the marker.
6. Let the pupils fill the cups with lentils at different levels – empty, half-full and full.
7. Stick the half-full bottle poster in capacity display.
8. Each pupil works Activity Sheet 1.2 by circling the container showing the appropriate level of water - EMPTY, HALF-FULL and FULL.

## ***Year 1 Maths Toolkit Activities- CAPACITY***

### ***Activity 3 – Introducing ‘nearly empty’ and ‘nearly full’***

#### **Activity Approach**

- Wholeclass approach

#### **Resources**

- StarBoard Activity 1.3
- Basket with Interlocking cubes
- 5 buckets per group

#### **Instructions**

1. Provide each group with a basket full of interlocking cubes.
2. Remove some of the interlocking cubes – now the basket is not full as some of the cubes are missing, so it is NEARLY FULL.
3. Now, remove all the cubes from the basket till it is EMPTY.
4. Put a few cubes in the basket – now it is NEARLY EMPTY.
5. Give 5 buckets and a set of interlocking cubes to each group.
6. Fill the buckets with interlocking cubes at different levels – EMPTY, NEARLY EMPTY, HALF-FULL, NEARLY FULL, FULL and place labels alongside the containers.
7. Stick the nearly-full, nearly-empty bottle poster in Capacity display.
8. Work StarBoard Activity 1.3 on IWB, by dragging the containers NEARLY EMPTY or NEARLY FULL in the box provided.

## ***Year 1 Maths Toolkit Activities- CAPACITY***

### ***Activity 4 – Comparing levels of capacity***

#### **Activity Approach**

- Groupwork

#### **Resources**

- Carton of milk/juice, cups, straws
- Activity Sheet 1.4

#### **Instructions**

1. Give some cups, straws and a carton of milk/juice to each group.
2. Show the FULL carton of milk/juice.
3. Pour a cup of milk/juice – now it is NEARLY FULL.
4. Pour more cups of milk/juice – now it is HALF-FULL/ NEARLY EMPTY.
5. When the container is empty – now it is EMPTY.
6. Let the pupils drink the milk/juice only for 10 seconds.
7. Discuss the level of milk/juice left in the cups.
8. Complete Activity Sheet 1.4 by colouring the drink left in each container.

## ***Year 1 Maths Toolkit Activities- CAPACITY***

### ***Activity 5 – Comparing levels of Capacity***

#### **Activity Approach**

- Groupwork

#### **Resources**

- Capacity Bingo Cards (*sparklebox.co.uk – Bingo - [www.sparklebox.co.uk/5001-5010/sb5009.html](http://www.sparklebox.co.uk/5001-5010/sb5009.html)*)

#### **Instructions**

1. Give a set of cards, showing bottles holding different levels of water, to each group.
2. Lay the matching cards face down on the table and pick up a card and say the words out loud, e.g. nearly empty, and the pupils have to find the matching bottle.
3. Step 2 is repeated until a group finds a set of 5 correct bottles.
4. After checking if all the bottles match properly, declare the winning group.