# Lesson Printables

Be a rockstar and only print what you need!

## Lesson Information Sheet: 2

**All Zones**
Activity: 3
Metric Measurements: 4
Answers: 5

# Let's explore units of measurement

## Why learn this?

Measurement has so many real life math applications. Knowing how to identify and work between a variety of different measurements helps students gain essential life skills that can be applied in a variety of scenarios.

## What types of metric measurement should my student identify?

**Length/distance**
- In the metric system, the standard units of length and distance are millimeters, centimeters, meters and kilometers.

**Mass**
- In the metric system, the standard units of mass are grams, kilograms and metric tons.

**Volume/Liquid Volume/Capacity**
- Volume refers to the total 3D space an object occupies. Volume can be measured in cubic units such as $cm^3$, $m^3$, etc. *Please note, we do not explicitly discuss volume in this year group, instead we focus on liquid volume and capacity.*
- Liquid volume refers to the space a liquid occupies. In the metric system, this is measured in milliliters and liters.
- Capacity refers to the maximum amount a container can hold. You can measure the capacity of a cup and you can also measure the liquid volume within a cup.
  - ➔ The capacity of a cup refers to the storage potential of the cup, while the liquid volume refers to the actual amount of liquid that is in the cup.
  - ➔ The capacity of a stadium refers to the amount of people who can safely fill the whole stadium.
  - ➔ The capacity of a car refers to how many people can fit (safely) in the car.

## Let's warm up!

**Starter Activity - Delicious Donuts**
What number sentences or math connections could students connect to the picture of donuts?

**To support, students could:**
- Be asked guiding questions:
  - ➔ What are some ways you could count the donuts?
  - ➔ How could money connect to the donuts?
  - ➔ How could fractions connect to the donuts?

**To challenge, students could:**
- Try to make at least 6 possible connections.

## Let's do this!

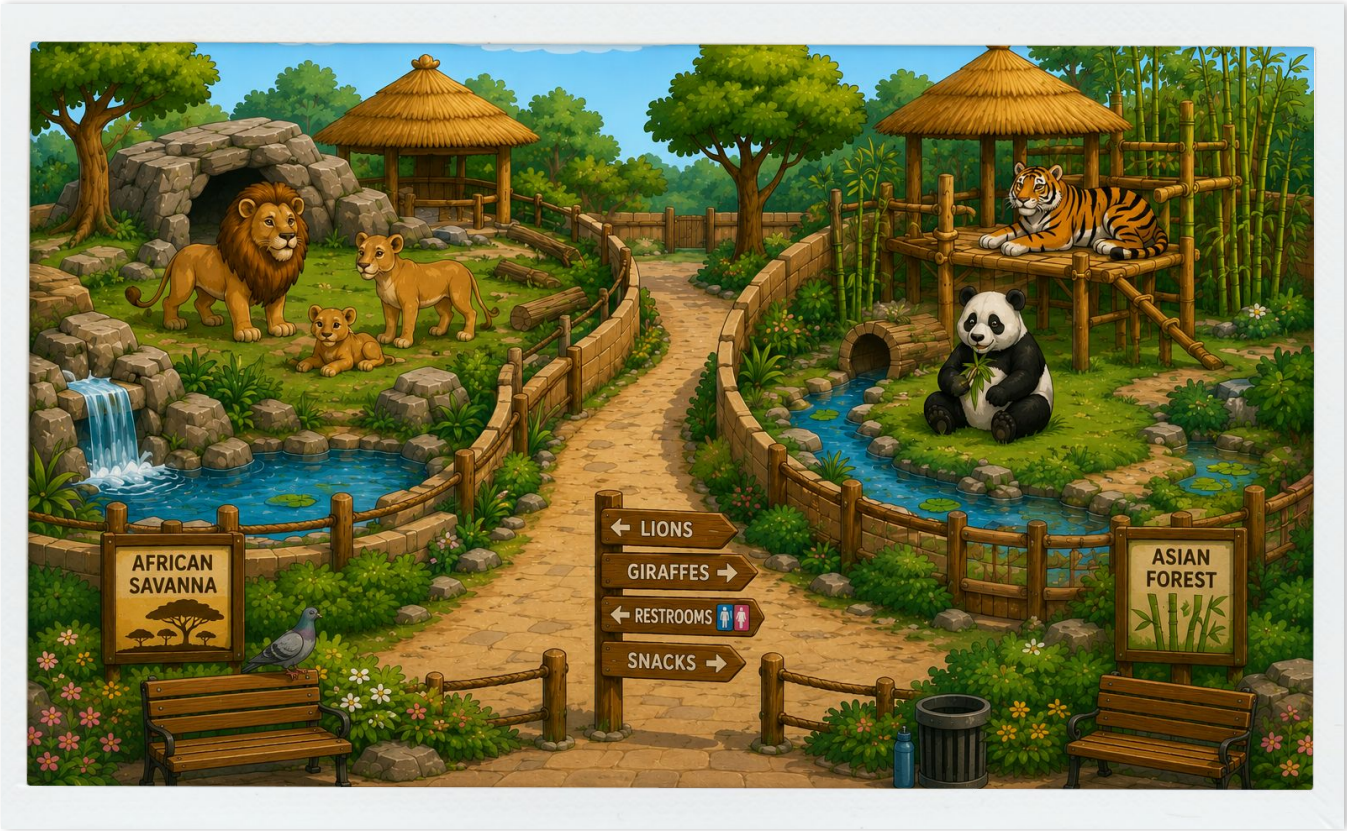
**Main Activity** - Students are shown a picture of a zoo. What measurements can students connect to the picture? These could be obvious measurements or students can think more abstractly as modelled in the lesson. Encourage students to include what unit of measurement would be used to measure each of their ideas.

**To support, students could:**
- Be asked guiding questions.
  - ➔ Let's focus on length. What could you measure using a tape measure or ruler in this picture?
  - ➔ Let's focus on mass. What could you weigh in this picture?
  - ➔ Let's focus on liquid volume. What could you measure that connects to liquids in this picture?

**To challenge, students could:**
- Be encouraged to include an estimation for each of their ideas.

# All Zone

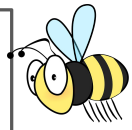
What measurements could connect to the picture?



# Metric Measurements

## Length

- millimeters



- centimeters

- meters

- kilometers

## Mass

- grams

- kilograms

- tons

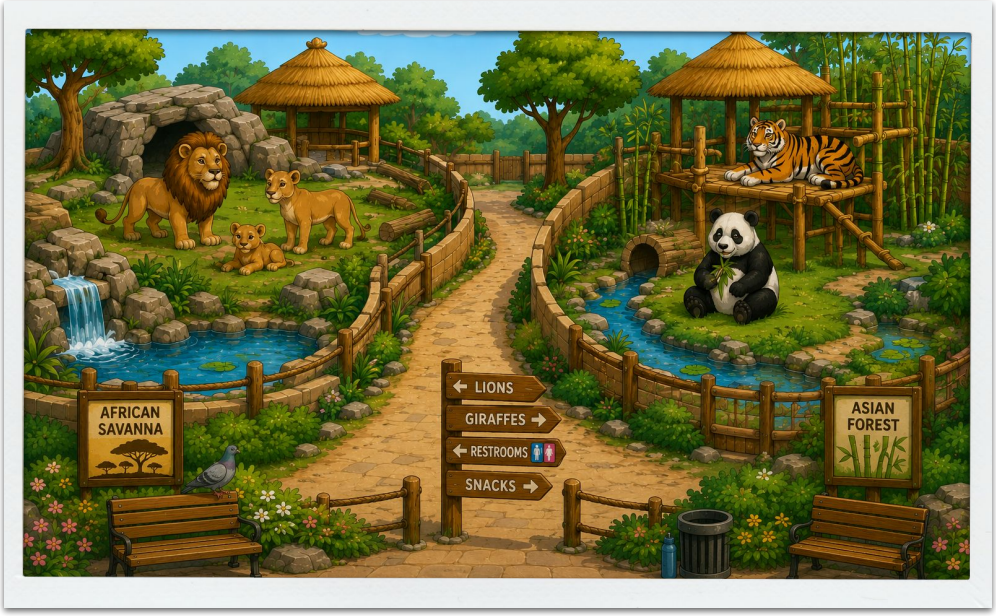
## Liquid Volume

- milliliters

- liters

# Answers

Encourage students to come up with as many ideas as possible.
Below are some examples. Students might come up with other ideas.




**Kilometers**
- ➔ Distance a lion might travel in the wild
- ➔ Distance a pigeon might fly
- ➔ Distance people walk when visiting the zoo

**Millimeters**
- ➔ Width of bamboo stem
- ➔ Width of nail in the fence
- ➔ Width of a lion hair

**Meters**
- ➔ Height of straw hut
- ➔ Height of a tree
- ➔ Length of a tiger
- ➔ Width of the enclosures.

**Centimeters**
- ➔ Length of a lion tail
- ➔ Length of a bench
- ➔ Height of the lion cub
- ➔ Width of a panda paw

**Kilograms**
- ➔ Mass of a lion
- ➔ Mass of a panda
- ➔ Mass of the benches

**Grams**
- ➔ Mass of baby panda
- ➔ Mass of pigeon
- ➔ Mass of a small rock

**Liters**
- ➔ Amount of water in the ponds
- ➔ Amount of water animals drink in a day

**Milliliters**
- ➔ Amount of water in the water bottle