Lesson Printables

Be a rockstar and only print what you need!

Planners: 2-3

Measurement Tables
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Big Versions
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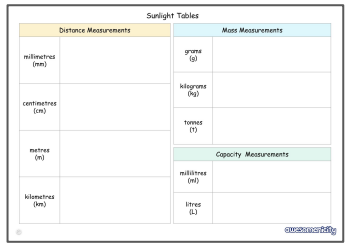
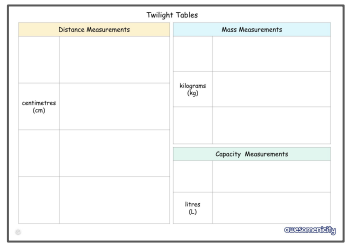
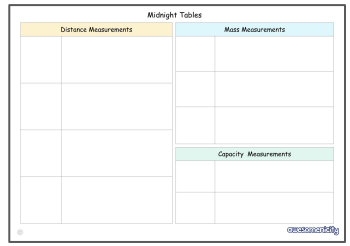
LESSON 1: Measurement - Exploring standard units of metric measurement

Starter	Main Activity and Input: Identify what each unit of measurement is used for.	Plenary
Factor Friends: Pick a number between 0 and 30. What are the factors of the number? Repeat. **To support:** 1. Provide students with counters that they can divide into equal groups in order to identify factors. **To challenge:** 1. What numbers between 0 and 30 have the most factors? What numbers have the fewest factors? Can students find any numbers that only have two factors?	**Input:** *Note, this lesson explores metric measurements using pictures. The pictures are not to scale. This might be worth discussing with students. FOr example, when looking at the width of the orange, students should think of a real orange, not the one on the screen.* 1. Slide 6 shows an orange. The slide is set up as an 'I spy' scenario. What measurements can students spy when looking at the oranges? Discuss ideas as a class. Slide 7 focuses on the width of the cut orange. What standard unit of metric measurement do students think they would use to measure this? If you have measuring tools in the classroom, you could ask students which one would be most appropriate for measuring the width of an orange. 2. Slide 8 displays a 'measurement pyramid' with centimetres written on it. This is the unit that would probably be used to measure the width of the orange. Ask students if they can think of anything smaller that could be measured on the orange. What about something longer that connects to the orange? Slides 9 to 11 go over distance measurements: millimetres, metres and kilometres. *Note, we do not explicitly state that you can use two units at one time. E.g. The bee's length could be measured in cm and mm. This is something you could discuss with your students.* 3. Slides 12 to 15 repeat making a *measurement pyramid,* but this time students are asked to explore mass. We have defined mass as the amount of matter there is in an object. Throughout the slideshow, we have connected all measurements loosely to the original orange picture. For example, a basket of oranges would be measured in kilograms, one orange would be weighed in grams, and the mass of a truck carrying oranges would be measured in tonnes. 4. Slides 16 to 18 model making a measurement pyramid for liquid volume/capacity. Litres are connected to a large family-size juice carton and millilitres are connected to measuring juice in a cup. 5. Slide 19 shows all three measurement pyramids in order to recap the measurements discussed. Do students notice any patterns? Elicit from students that every unit of length has the suffix 'metre', both units of mass have the suffix 'gram' and both units of liquid volume have the suffix 'litre'. **Activity: Identify objects that could be measured using standard metric units of measurement.** 1. Print the measurement tables for each learning zone. Students could explore objects to measure in small groups or pairs. (Set up exploration guidelines with your class.) Can students find objects in and around their school that could be measured using any of the units in the measurement tables? Once students find a connection to any particular type of measurement, they should fill it in on their own individual (or group) table. Encourage students to try out all three measurement tables. **To support:** 1. Sunlight Zone tables include the names of all types of measurements. **To challenge:** 1. Midnight Zone does not have the names of any of the measurements. Can students fill in all of the tables? 2. Ask students to estimate what the actual measurement might be. E.g. The length of the orange seed could be about 6 millimetres. 3. How are the different units of measurement connected? Students could write what they know about measurement equivalence.	**I Spy:** Play I Spy as a class by looking at the picture of the farmyard. Pick one student to say, 'I spy with my little eye, something that would be measured in…' Students get to guess what the 'spyer' is looking at. **Check for understanding:** 1. Can students correctly identify when to use a particular measurement?

Things that might be useful for this lesson:

- Individual whiteboards:
  - ➔ Help students to record their thinking and share ideas with others.
- Devices:
  - ➔ To take photos of the items.
- Rulers/scales/beakers:
  - ➔ Could be used for students to investigate units of measurement.

Peek at the Printables:

Sunlight Zone	Twilight Zone	Midnight Zone
		

Greener Alternatives:

- ➔ Rather than printing the tables, students could record the different units of measurement in their books and then start the measurement hunt.
- ➔ If you wish to have a more structured inquiry, you could gather a collection of items or picture prompts for students to explore.

Sunlight Tables

Length/Distance Measurements	
millimetres (mm)	
centimetres (cm)	
metres (m)	
kilometres (km)	

Mass Measurements	
grams (g)	
kilograms (kg)	
tonnes (t)	

Liquid Volume/Capacity Measurements	
millilitres (ml)	
litres (L)	

Twilight Tables

Length/Distance Measurements	
centimetres (cm)	

Mass Measurements	
kilograms (kg)	

Liquid Volume/Capacity Measurements	
litres (L)	

Midnight Tables

Length/Distance Measurements	

Mass Measurements	

Liquid Volume/Capacity Measurements	

Length/Distance Measurements	
millimetres (mm)	
centimetres (cm)	
metres (m)	
kilometres (km)	

Mass Measurements	
grams (g)	
kilograms (kg)	
tonnes (t)	

Liquid Volume/Capacity Measurements	
millilitres (ml)	
litres (L)	