# Lesson Printables

Be a rockstar and only print what you need!

**Planners:** 2-3

**Extras**

Large Recording Log: 4

Small Recording Logs: 5

# LESSON 1: Measurement - Exploring non-standard units for measuring distance

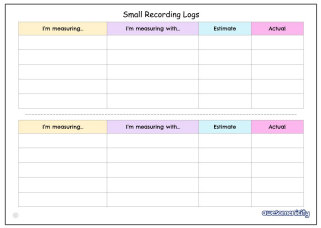
| Starter | Main Activity and Input: Use non-standard units to measure objects around the classroom. | Plenary |
|---|---|---|
| **Odd One Out:** Which of the nine cards could be the odd one out?<br><br>**To support:**<br>1. Work methodically through each card. What do students notice? Is there a pattern or a connection between the cards? What makes the card students are focusing on unique?<br><br>**To challenge:**<br>1. What are some new cards that could match the pineapple cards? | **Input:**<br>*Note, in this lesson students explore measuring objects using non-standard units of measurement. We do not explicitly go into standard units of measurement, although they might come up in discussion in your class. Standard units will be explicitly covered in future lessons.*<br>1. Slide 6 asks students what things can be measured. Share ideas as a class. E.g. Measuring your height, the length of your feet, the distance you walk to school, etc. Do students use 'other' measuring terms such as mass, time, capacity, etc.?<br>2. Slide 7 introduces using limes as a non-standard unit of measurement. If students were to measure the giraffe's legs using limes, how many limes would they need? Students could come to the board and use their hands and fingers to measure the width of the lime on the screen and then estimate. Ask a student to write their estimation in the box provided in the table on the screen.<br>3. Slide 8 shows that the giraffe's legs are '6 limes long'. What if students want to measure the length of the giraffe's neck? Again, fill in the estimation box as a class. Slide 9 reveals that the neck is 2 and ½ limes long. This is an opportunity to recap fraction knowledge. Elicit from students that there are 2 whole limes and 'part of' or ½ of another lime.<br>4. Slide 10 asks students to find a pencil in the classroom and measure it using a non-standard unit of measurement. Allow students to find objects in your classroom to use as their measuring tool and to work individually or in pairs to measure a pencil. At this point, you might wish to discuss how to measure objects accurately. Ask students to make sure their measuring object is perfectly lined up with the start of the pencil. Slide 11 models using paper clips to measure a pencil.<br>5. Slide 11 introduces a new measuring term 'height'. Ask students how this is different to length. Share ideas as a class. Students might say that length measures 'along' or horizontally and height measures 'up' or vertically. You might also wish to discuss the term 'width'.<br>6. Slide 12 models measuring the height of a chair (you could put chairs on their side to measure more accurately). Ask students if the giraffe has measured accurately. Elicit from students that this measurement isn't as accurate as the previous ones because not all of the shoes are the same size. If students are going to measure using shoes, the shoes need to be the same shoe or the same size each time in order to be accurate.<br>**Activity: Exploring measuring using non-standard units of measurement.**<br>1. Students pick objects around the classroom (or outside) that can be measured. Students could work in small groups or pairs to use non-standard units of measurement to estimate and then actually measure the objects.<br>**To support:**<br>1. Encourage students to measure several objects using the same unit of measurement so that they become more accurate when estimating and measuring.<br>**To challenge:**<br>1. Can students measure more than just the length of objects? Can they include terms like height or width?<br>2. Allow students to also use standard units of measurement to measure their items. E.g. A ruler or metre stick. You could also use this as a pre-assessment to see if students know how to measure accurately using standard units of measurement. | **Standard vs. Non-standard:** Slide 15 shows a pencil being measured in paper clips and buttons. Ask students why these units of measurement aren't used on a regular basis.<br><br>**Discuss:**<br>1. Why do we use standard units of measurement? Elicit from students that all paper clips aren't the same size, but a centimetre in Australia is the same size as a centimetre in India, etc. |

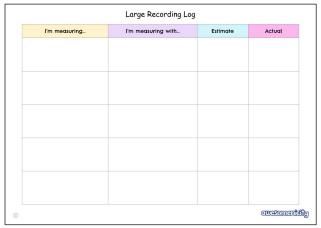
***Things that might be useful for this lesson:***

- Individual whiteboards:
  - ➔ Help students to record their thinking and share ideas with others.
- Collection of objects:
  - ➔ Could be helpful for students to choose appropriate items.
- Sticky notes:
  - ➔ Could be used to label items in the class that students can measure.


## Peek at the Printables:

### Recording Logs




## Greener Alternatives:

➔ Skip printing the recording logs. Students could record their findings in their books.

# Large Recording Log

| I'm measuring... | I'm measuring with... | Estimate | Actual |
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# Small Recording Logs

| I'm measuring... | I'm measuring with... | Estimate | Actual |
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| I'm measuring... | I'm measuring with... | Estimate | Actual |
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