

Measurement At Home Invent a unit



Can you dream up a new measurement unit?

- ❖ Metres, seconds, newtons, amps... are examples of units that we all use to measure things
- ❖ There are international agreements about how they are defined
- ❖ Are you ready to make a major international contribution?
- ❖ You can have fun creating useful or crazy units
- ❖ NPL staff participate in committees discussing measurement units for worldwide science, safety, trade, health and industry

Estimated time: 20 minutes

Have fun thinking of ideas - no limit to the number of entries

Instructions

Watch the video ([YouTube DBnkZYxiJts](https://www.youtube.com/watch?v=DNkZYxiJts))

1. Think about what a measurement unit is used for.
2. Think about what matters to you and how your new measurement unit might help you and others. For instance, a unit to measure a sensible amount of screen time spent each day. What would you call it?
3. Think of a good name for your unit. It could relate to its use, like the **candela**, which connects to the brightness of a candle. Maybe you could name it after yourself, like the Newton which measures force.
4. Someone invented the **beard-second**, a humorous (not internationally recognised) length unit which is how long a beard grows in one second.
5. Share your idea on social media using #Measurementathome, or send it to us using the form on the NPL webpage / below.
6. Repeat as many times as you like.
7. You could have fun with family and friends discussing this – brilliant ideas can come from such chats.
8. Ideas submitted to NPL by end 20 May 2020 may be included in a report to appear Friday 22 May 2020.

#MeasurementAtHome
npl.co.uk/measurement-at-home

Equipment required

Just your imagination.

Risks

If you have a really good idea, we may get back to you to ask if we can promote it internationally and you may become famous.

SI measurement units

- ❖ There are just 7 base units (represented by NPL's coloured SI-Bot robots). Can you name these units?

Challenge Topics

Measurement Science, Maths, Physics

Thoughts, tips and information

- ❖ There are many measurement units. Historically, countries used different units for the same quantities which made trade, science and engineering difficult.
- ❖ Human body parts were often used in units, even of particular people – the **cubit** related to the length of an Egyptian pharaoh's arm.
- ❖ Have fun researching silly measurement units. The **Mickey** (named after Mickey Mouse) is the length of the smallest detectable movement of a computer mouse.
- ❖ **Prefixes** are used to simplify describing things bigger or smaller than the unit. A **gigasecond** is **one thousand million** seconds (about 31.7 years). Some NPL staff celebrate gigasecond birthdays!

Your measurement unit name	What your unit is used to measure