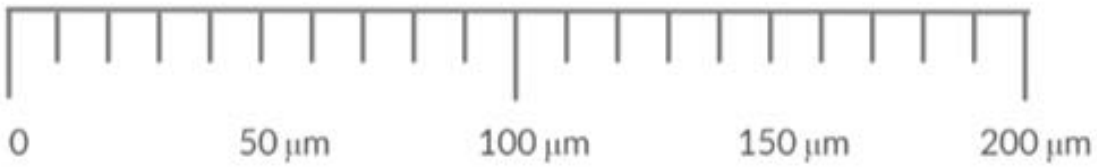
# Scales and Sizes

**What do I need?**

- A sheet of paper
- Felt tip pens or pencils
- Ruler (if you have one)

**What do I do?**

Copy the scale. You can use a ruler to help you with each 5cm=50µm

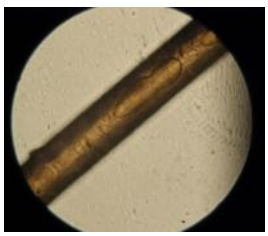



Now can you draw the 5 objects to scale on the same sheet of paper?

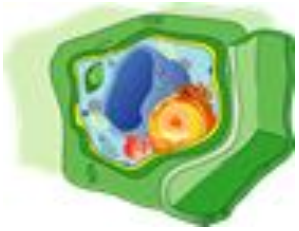
**Virus 0.1µm**

**Bacterium 3µm**

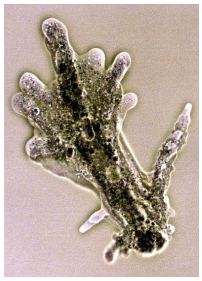
**Human hair diameter 70µm**



**Plant Cell 100µm**



**Amoeba 200µm**



Can you see that the objects are different sizes? For example, a bacterium is bigger than a virus.

# Scales and Sizes

Another way to compare size difference is to see how many of each object fits into the same space. A printed full stop in a newspaper is about 300µm in diameter.

- How many bacterial cells would fit across a full stop?
- How many viruses would fit across a full stop?
- How many more viruses can fit across a full stop compared to bacterial cells?
- You could also think about how many bacteria could cover other surfaces? How about a stamp or a 5 pence peice?

Can you answer these questions? You can use the length formula below to help you.

**Length**