



The Microscopic Big Five (Beginner)

Observing a tardigrade



Connect with nature
Promote microscopy
Inspire STEM

You have found a tardigrade

Use this guide to help you observe it.

Tardigrades (waterbears) are tiny **invertebrate** animals that can be found in moss.

Tardigrades can be pale or red in colour. Under bright light, you may see green or brown food inside it.

The key things to look for at x40:

- 8 short legs
- claws at the end of the legs
- a pointed mouth

Draw your tardigrade and label the features you can see.

Describe what it is doing.

Tardigrades are less than a millimetre long

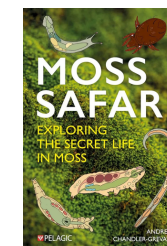
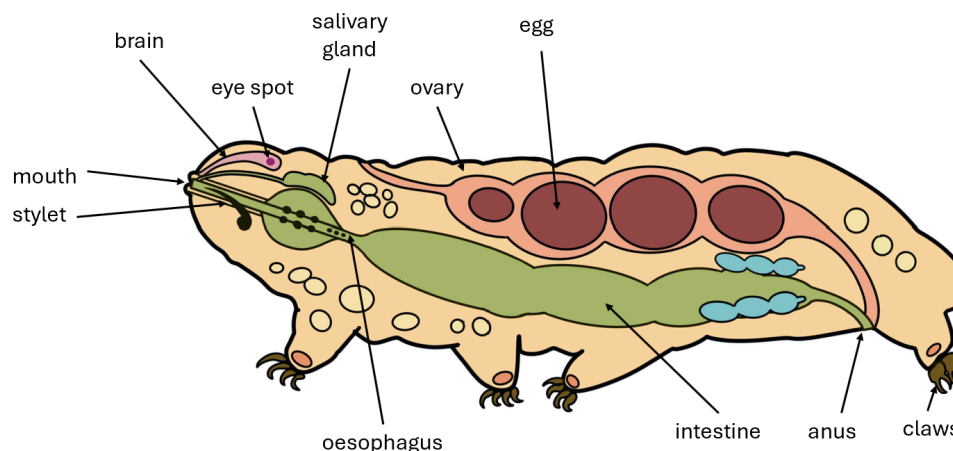
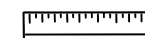


Diagram from

www.mosssafari.com

A.Chandler-Grevatt (2025) *Moss Safari. Exploring the secret life in moss.* Pelagic Publishing

What is it doing?

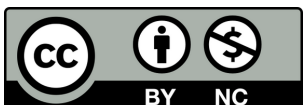
Tardigrades use their claws to grip onto the moss and climb.

They walk using their eight short legs.

Although they live in water they cannot swim.

So what?

Tardigrades are the most resilient animals on Earth. They can survive extreme conditions including the very cold, high pressure, no water and even in the vacuum of space. They do this by turning into a protective ball called a tun.



© 2025 A. Chandler-Grevatt / Moss Safari. This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0). Schools, universities, and educators are welcome to use, copy, and adapt this content for teaching and learning acknowledging the original source. Commercial reproduction or distribution is not permitted without permission. More information: www.mosssafari.com