



Phytoplankton grow everywhere - even the Antarctic. What do phytoplankton look like?



### Phytoplankton – Tiny floating plant-like organisms

**Algae** Diatoms







### Phytoplankton – Tiny floating plant-like organisms

**Dinoflagellates** 

Cyanobacteria





## Phytoplankton aren't really plants. What are they missing?





## Phytoplankton aren't really plants. What are they missing?

Not "true" stems

Why can't phytoplankton have roots?

Alga

Alga is supported by the surrounding water.

Whole alga performs photosynthesis; absorbs water, CO<sub>2</sub>, and minerals from the water.

Shoot system

Plant

Leaves perform photosynthesis and gas exchange.

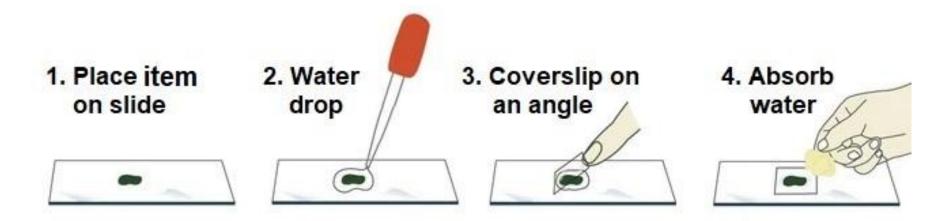
Stem supports plant and may perform photosynthesis.

Root system

Roots anchor plant and absorb water and minerals from the soil.



#### Make a Slide





#### **Setting Up the Microscope**

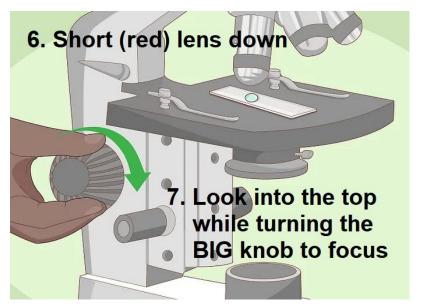
# 1. Plug In 2. Stage down Use big knob

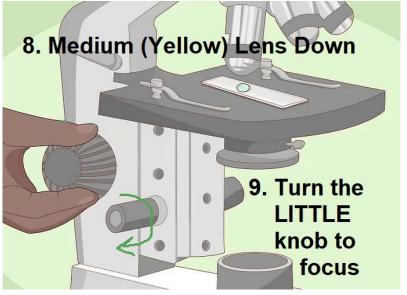
#### **Placing the Slide on the Microscope**





#### Seeing Clearly Through the Microscope Zooming In

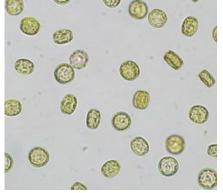






#### Which Phytoplankton Do You See?









Amphidinium Dinoflagellate

Cyclotella Diatom

Thalassiosira Diatom

Plankton come in all shapes and sizes



You don't need to go to the Antarctic or anywhere fancy to find phytoplankton

This sample is from your school's local waterway





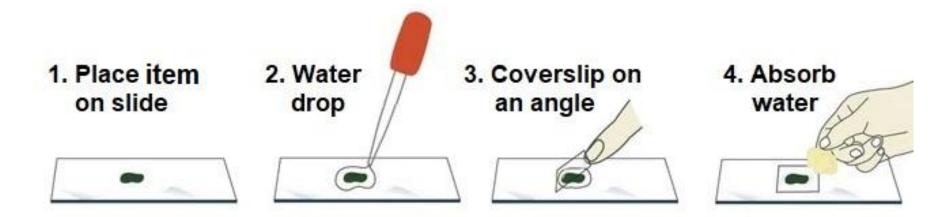
You don't need to go to the Antarctic or anywhere fancy to find phytoplankton

This sample is from your school's local waterway





#### Make a Slide





#### **Setting Up the Microscope**

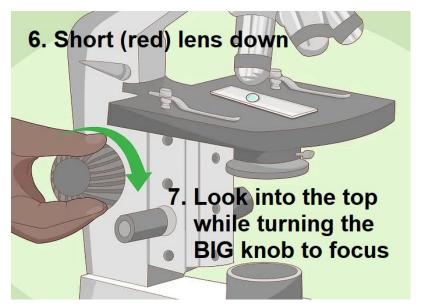
# 1. Plug In 2. Stage down Use big knob

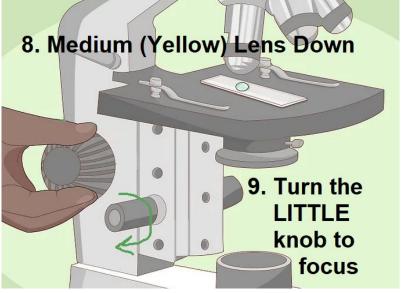
#### Placing the Slide on the Microscope





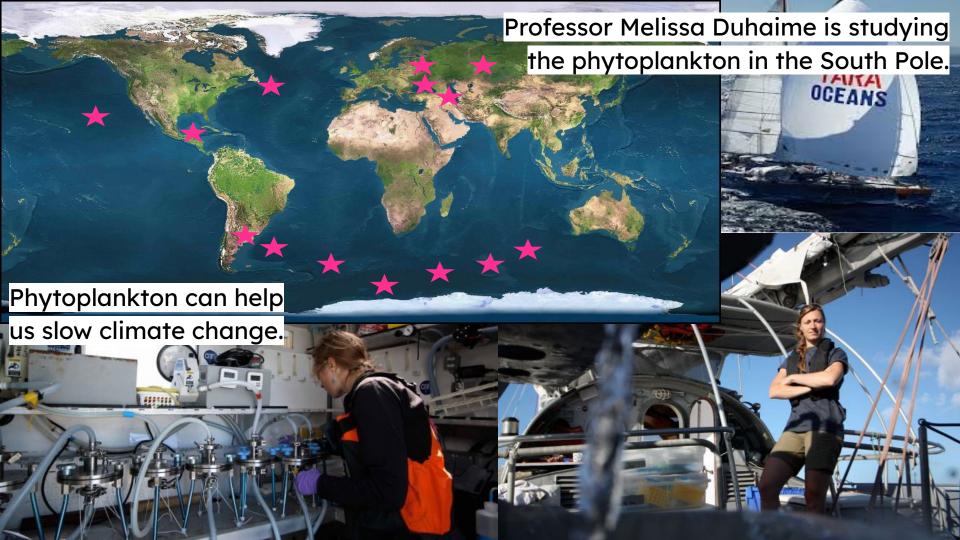
#### Seeing Clearly Through the Microscope Zooming In













How can we quickly grow phytoplankton to help our fight against climate change?

