

Celebrate Earth Day with NEW NASA eClips videos and lessons!

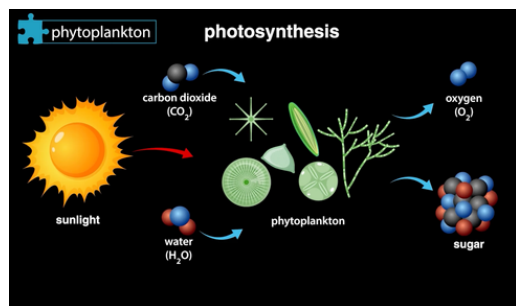
In this edition:

- Check out our **NEW** website. (You may have to do some searching).
- **NEW** videos!
 - *Our World: Phytoplankton - Powering the Ocean Food Web*
 - *Real World : Phytoplankton, Microscopic Drifters*
 - *Ask SME: Oceanographer - Dr. Ivona Cetinić*
- Best practice tips from Advisory Board Members on using NASA eClips videos
- NASA Spotlight Design Challenge Update
- NASA eClips Educator Resources
- Partner Resources & Activities



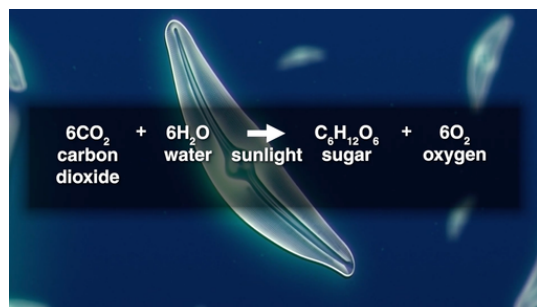
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NEW Phytoplankton Videos



[Our World: Phytoplankton - Powering the Ocean Food Web](#)

Tiny but mighty! Phytoplankton make much of the air we breathe and feed ocean animals big and small. Meet these ocean superheroes in the NASA eClips video: *Our World: Phytoplankton - Powering the Ocean Food Web*.



[Real World: Phytoplankton, Microscopic Drifters](#)

Tiny phytoplankton = big impact! Discover how these microscopic movers shape Earth's systems, from fueling food webs to driving algal blooms, in the NASA eClips video: *Real World: Phytoplankton, Microscopic Movers*.

Ask SME: Close-up with a NASA Subject Matter Expert Video



[Ask SME: Oceanographer - Dr. Ivona Cetinić](#)

In this close-up video, Dr. Ivona Cetinić, oceanographer at NASA's Goddard Space Flight Center, shares her love of exploring the ocean and the thrill of discovering new ocean creatures. She also discusses the challenges of balancing her family and work life, and the joy of working with a strong team.

Tips for Using NASA eClips Videos

The NASA eClips team asked Advisory Board members to share best practices and tips for using videos with learners. Check out their suggestions for engaging learners and getting the most out of videos.



Patrick Neary

Fine Artist,
Traditional and
Digital Mediums

“

Be sure to watch the Ask SME video associated with a NASA eClips video. Subject Matter Experts come from many different backgrounds, and have travelled many different pathways to their positions.

Don't forget to check out the curated resources that accompany each video.

”



Melissa Sleeper

Middle School
Science and
Robotics Teacher

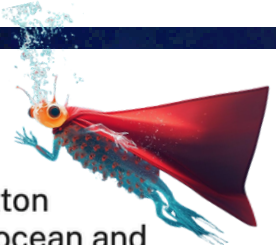
“

I use NASA eClips videos for all parts of my lesson... to introduce an idea or get my students wondering... to explore more about a topic... or to extend learning. For example, when students were learning about how to stay physically fit in space, we watched a NASA eClips video on how the astronauts condition for space.

”

Here are examples of prompts paired with the videos.

1. Ocean Superheroes: Why do you think scientists call phytoplankton "heroes"? Write or talk about how they help both animals in the ocean and people on land.
2. Breath of Fresh Air: Phytoplankton make a lot of the oxygen we breathe. Imagine what life would be like if there were no phytoplankton. How would Earth be different?
3. Food Web Connections: Phytoplankton are at the start of the ocean food web. Choose your favorite ocean animal and explain how it might depend on phytoplankton for survival.



New NASA eClips Educator Resources

NASA Spotlight Lesson: Who Needs Phytoplankton?



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Grades 3-5

Through making a model of a food web and observing phytoplankton in a jar, learners will be introduced to phytoplankton and why they are an important part of an aquatic ecosystem.

NASA Spotlight Lesson: Why Are Phytoplankton Important?

Grades 6-8

To discover more about phytoplankton, learners will observe phytoplankton, see how phytoplankton are distributed by simulated currents, and visualize the impact water temperature has on their growth.



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Updates to the NASA Spotlight Challenge

**CHANGE
ALERT!**

Please continue to use the NASA Spotlight Challenge resources to run **your own** video challenge for your learners, however, **the NASA eClips Team will no longer provide support or review final productions after Dec 31, 2025.**

NEW

For inspiration, your learners may review submissions at:

– The NASA eClips website -- [Spotlite | NASA eClips](#)
(Search “Spotlite”)

– The NIA NASA Spotlight YouTube Channel – [Spotlite Gallery](#)



Partner Resources to Complement Phytoplankton Videos



PACE Plankton, Aerosol, Cloud, ocean Ecosystem

Try out these great resources from our partners at PACE:

Which Phytoplankton Are You?

Take this 4 question quiz to learn about phytoplankton, identify your type, and get certified.



Try your hand at building your own PACE satellite. 

Grab some glue, scissors, and a ruler and use the templates provided to make your model.

Materials

- Scissors
- Glue
- Metal ruler to make sharp folds
- *Optional: Hole punch (3/8 inch is best)*

Patterns

Dashed line

Mountain fold

Fold so that the printed pattern faces out.

Dotted line

.....

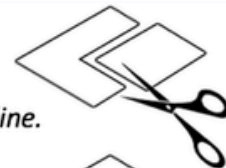
Valley fold

Fold so that the printed pattern faces in.



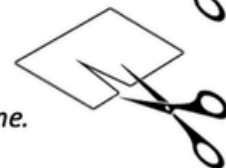
Solid line

Cut parts out along this line.



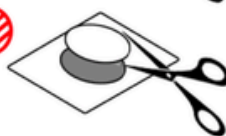
Solid red line

Cut a notch along this line.



Diagonal red lines

Cut these areas out.



Green dots



Glue tabs to another place on that part.

See how it's done! Check out the PACE videos for help in constructing the model

Partner Resources to Complement Phytoplankton Videos Continued

Quiz yourself to see how much you know about photosynthesis and aquatic food chains using these interactives, created by our Advisory Board Member and founder and CEO of Virtual Science Teachers, Suzanne Sprague.

Can you build an [Aquatic Food Chain?](#) 

Or complete [Photosynthesis Reaction in Phytoplankton](#) 

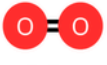

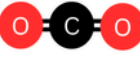



[Analyzing Data: Chlorophyll Patterns in the North Atlantic](#) 



Virtual Science Teachers



Photosynthesis Reaction in Phytoplankton
Drag each item to complete the photosynthesis equation used by phytoplankton.

Reactant 1	+	Reactant 2	+	Energy	+	Product 1	+	Reactant 2
								
6O₂ Oxygen		C₆H₁₂O₆ Glucose		6CO₂ Carbon Dioxide		 Sunlight		6H₂O Water

Resources

Exploring Phytoplankton from Space with My NASA Data - Phytoplankton Mini Lessons

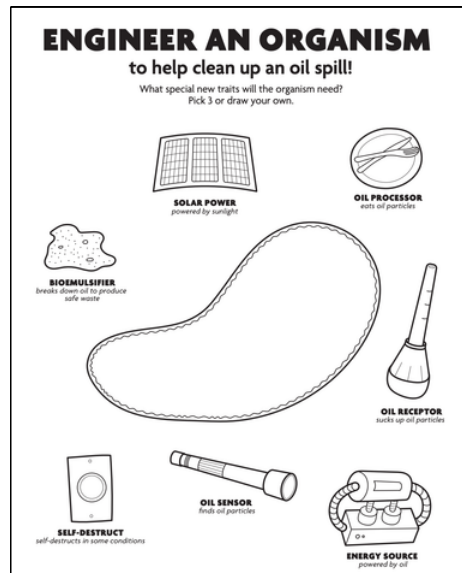
Global Phytoplankton Distribution




<https://mynasadata.larc.nasa.gov/phenomenon/phytoplankton> 

NISE Network - Building with Biology: Super Organisms

Synthetic biologists solve problems by applying engineering principles to living materials. Acting like a synthetic biologist, engineer plankton to help clean up the ocean.



<https://www.nisenet.org/catalog/building-biology-super-organisms> 

<https://science.nasa.gov/eclips/>