

Using POGIL® Activities to Support Anchoring Phenomena Designed for NGSS Middle School Standards

Are you looking for anchoring phenomena to help build your Middle School science units?

Our team of secondary science teachers has created 17 unit outlines, each including two to six POGIL® activities published by Flinn Scientific, Inc., and designed to last from one to four weeks. These student-centered, cooperative learning, inquiry-based activities help students to master foundational concepts. Students then apply these new concepts to explain the anchoring phenomenon at both a visual (macroscopic) level and an invisible (particle/energy) level.

Each unit lasts from 1 week to four weeks. Many include optional enrichment activities.

Anchoring Phenomenon	POGIL® book(s)
Why do elk have such huge antlers?	LS
How does a salamander develop from a single cell?	LS
What happens when a newborn cannot process their food?	LS
How using pesticides causes pests to evolve – and how farmers can reduce the problem	LS
The puzzle of animal fossils: Why do we find fossils from the same animals on different continents?	LS, ESS
Hurricane impacts on drinking water	ESS
What causes the “Ring of Fire”?	ESS
The puzzle of the missing earthquake: Where and why can we detect earthquakes at different locations on the Earth’s surface?	ESS, PS
How well do the materials in “world building” online simulations match real materials on Earth?	ESS, PS
Carrying a backpack from Earth to Mercury – what happens to its weight? Why?	ESS, PS
Finding energy transformations in a Rube Goldberg machine	PS
What causes erosion on sandy beaches and how can we stop it?	PS
Why do bath bombs fizz?	PS
Water on cold pop cans – where does it come from?	PS
Why do pool balls scatter after a break shot?	PS
Why do noodles cook faster in boiling water?	PS, CP
What causes the glass in a cell phone scree to break?	PS, CP

Resources

LS = POGIL® *Life Science Activities Designed to Support the NGSS* © 2018

ESS = POGIL® *Earth and Space Science Activities Designed to Support the NGSS* © 2018

PS = POGIL® *Physical Science Activities Designed to Support the NGSS* © 2019

CP = POGIL® *Conceptual Physics Activities Designed to Support the NGSS* © 2020

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