Episode 5

Strand 6.3	Standard 6.3.3	Big Idea: Earth's atmosphere and unequal heating keeps temperatures stable enough to sustain life.

Title How do wind patterns affect Earth?	Time 60 min		Practice Carry out investigation Develop a model
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Phenomenon: Sailors sail at certain latitudes to use winds to get them to their destinations faster.

Gathering

Carry Out an Investigation

Students will investigate wind <u>patterns</u> using a pan of water, sprinkled cork dust/sawdust/glitter, and a straw. Students will use the straw to create wind above the water and find <u>patterns</u> in the water currents.

Teacher support: As students investigate, they will notice <u>patterns</u> of circulation moving in opposite directions, currents forming and moving water, and edges of the pan blocking and redirecting currents. Investigation should look something like <u>this (Links to an external site)</u>.

Reasoning

Construct Explanations

Students will use the patterns they see in the water and compare them to a map of ocean currents and a map of wind <u>patterns</u>. Students will discuss and construct an explanation of how wind patterns affect Earth's systems.

Communicating

Communicate Information

Students will use evidence from their investigation and the maps to describe how wind drives currents in the ocean.

Assessment:

Correctly describe how surface currents in the ocean are primarily driven by the wind.

Materials, resources, handouts, etc.

Pans, water, cork dust/sawdust/glitter, drinking straws 633a Ocean Currents 633b Wind Currents Real Time Wind Patterns

Example of Investigation:

https://www.youtube.com/watch?v=IDxyXhkjV9M https://www.youtube-nocookie.com/embed/IDxyXhkjV9M https://safesha.re/2ygk

Super Cool Videos Showing WInd patterns:

https://safeshare.tv/x/oRsY_UviBPE https://safeshare.tv/x/ss5e90d0b06a04f

Teacher Support Resources

http://climatekids.nasa.gov/ocean/