

Episode 5

Strand 6.3	Standard 6.3.3	Big Idea: Earth's atmosphere and unequal heating keeps temperatures stable enough to sustain life.
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Title How do wind patterns affect Earth?	Time 60 min	CCCs Patterns	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 patterns 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 patterns in the water currents.

Teacher support: As students investigate, they will notice patterns 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 [this \(Links to an external site\)](#).

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 patterns. 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/>