## Using Computational Thinking Activity #2: Wind Power

Introduce learners to wind power using websites such as the following:

- National Geographic Wind Power
- Wind Turbine Simulator from ManyLabs.org

Learners can explore background information about wind generated power and use the online simulations to create multiple scenarios of variables that affect wind power. Learners should be encouraged to continually ask questions, record findings, and engage in argumentation when sharing results.

## **Related Crosscutting Concepts:**

- Cause & Effect
- Scale, Proportion & Quantity
- Systems & System Models
- Structure & Function
- Energy & Matter

## Related Disciplinary Core Ideas:

- Core Idea PS2: Motion and Stability: Forces and Interactions
  - PS2.A: Forces and Motion
  - PS2.B: Types of Interactions
  - PS2.C: Stability and Instability in Physical Systems
- Core Idea PS3: Energy
  - PS3.A: Definitions of Energy
  - PS3.B: Conservation of Energy and Energy Transfer
  - PS3.C: Relationship Between Energy and Forces
- Core Idea ESS2: Earth's Systems

- ESS2.D: Weather and Climate
- <u>Core Idea ETS1: Engineering Design</u>
  - ETS1.A: Defining and Delimiting an Engineering Problem
  - ETS1.B: Developing Possible Solutions
  - ETS1.C: Optimizing the Design Solution