



Gust



## Planet Warriors: Wind — Teacher Notes

Now that your students have listened to the Planet Warriors: Wind Energy episode, these activities will help them explore how wind is formed, how turbines make electricity, and how to separate myths from facts.

Each task builds science and critical-thinking skills while reinforcing key vocabulary. You don't need to be a wind expert — everything you need is right here!

### Activity 1: Gust and the Case of the Curious Current!

Students piece together the steps that cause air to move around our planet.

How to run it:

- Use the diagram (Sun, land, sea, arrows, sphere diagram) as a visual.
- Students match or number the descriptions in the clouds to the picture.
- Optional: have them write a paragraph to explain their understanding of the process.

### Activity 2: Wind Energy Myth Busters

Students evaluate facts and common myths using information from Associate Professor Jonathon Whale.

- Students read each statement and tick True, False, or Needs More Evidence.
- Optional: discuss where people might have heard the information and why it's important to check the source.

### Activity 3: Wind Words Crossword

Students use knowledge from the podcast to complete the crossword.

There is a word bank provided for students who require additional scaffolding.

- Optional: after completing, have students choose one word to illustrate or define.

### Activity 4: Wind Data Detectives


Students interpret data and link wind speed to energy output.

How to run it:

- Review the graph together.
- Ask what happens as wind speed increases.
- Discuss why turbines are placed in windy locations and why too much wind might be a problem.

### Word Help

- Turbine: A machine that captures moving air and turns it into electricity.
- Rotor: The spinning blades of a turbine.
- Generator: The part that converts motion into electrical energy.
- Coriolis Effect: The curving of wind paths caused by Earth's rotation.
- Energy Storage: Batteries or other systems that keep extra power for calm days.

 **Tip:** Wrap up: "What's one thing you learnt today that surprised you about wind energy?"

Encourage students to reflect on why science-based evidence — like Professor Whale's — matters when talking about renewable energy.



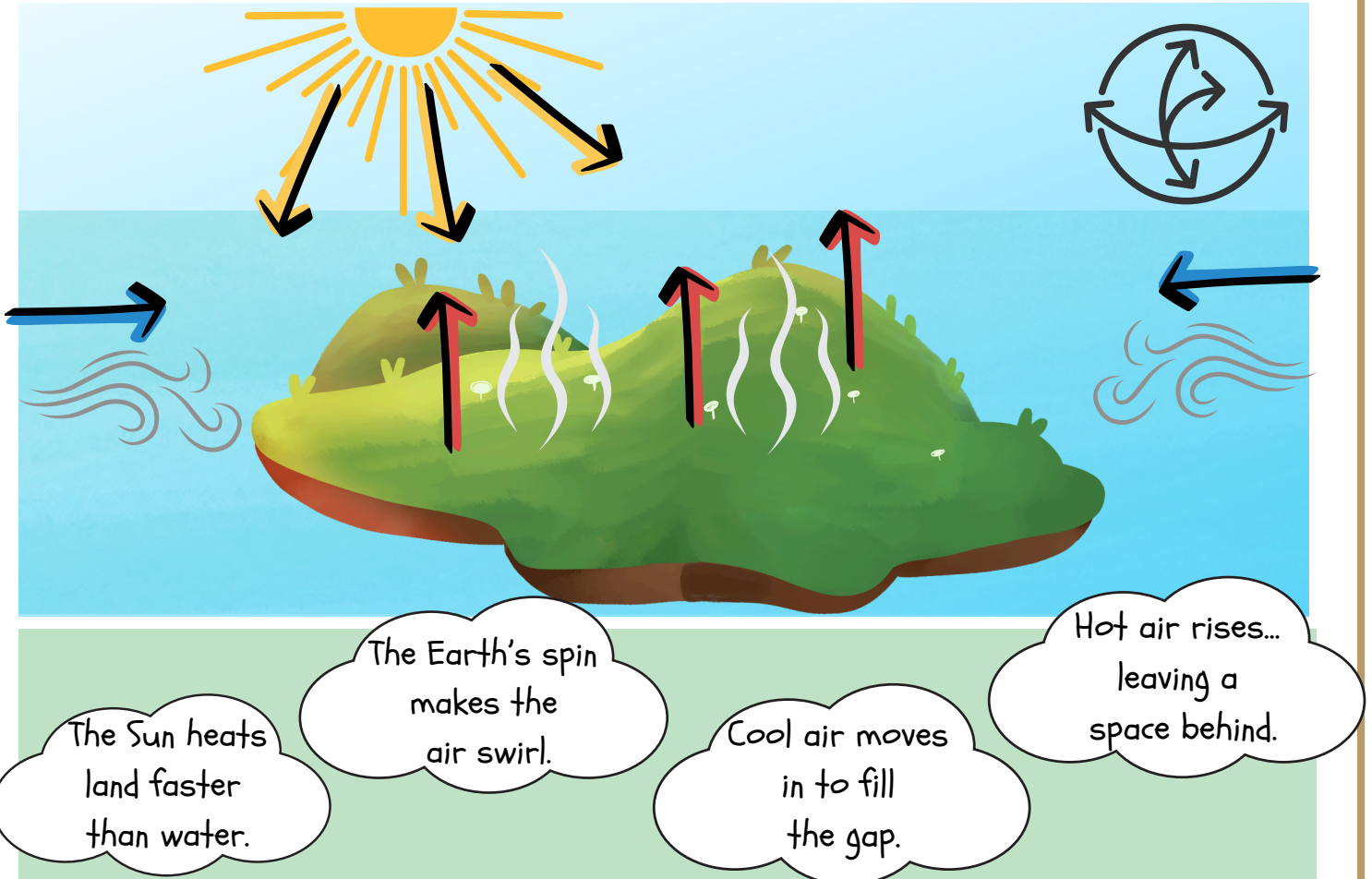
Gust

# PLANET WARRIORS

## Wind

### Gust and the Case of the Curious Current!

1. Gust has picked up the hint of a breeze. "Something's moving — but what's pushing it?" he wonders. **Match the labels in the clouds to the parts of the picture to show Gust how wind is really made!**



**Tip:** Without the Sun, there'd be no wind at all — it's the planet's way of balancing hot and cold air!

2. Lots of stories swirl around about wind energy — but which ones are true, and which are just hot air? With help from Associate Professor Jonathon Whale of Murdoch University, it's time to sort the facts from the fakes.

**Read each statement carefully. Then tick whether you think it's True, False, or Needs More Evidence.**

	TRUE	FALSE	NEEDS MORE EVIDENCE
a. Wind turbines make whales beach themselves.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Wind turbines only work 30% of the time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. When communities are involved they are more likely to be happy with wind farms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Wind farms kill more bats and birds than any other cause.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



3. Gust's got his words all blown around in the breeze! Use what you've learnt about wind energy to **fill in the crossword below**.

Each clue reveals an important piece of wind-power science.

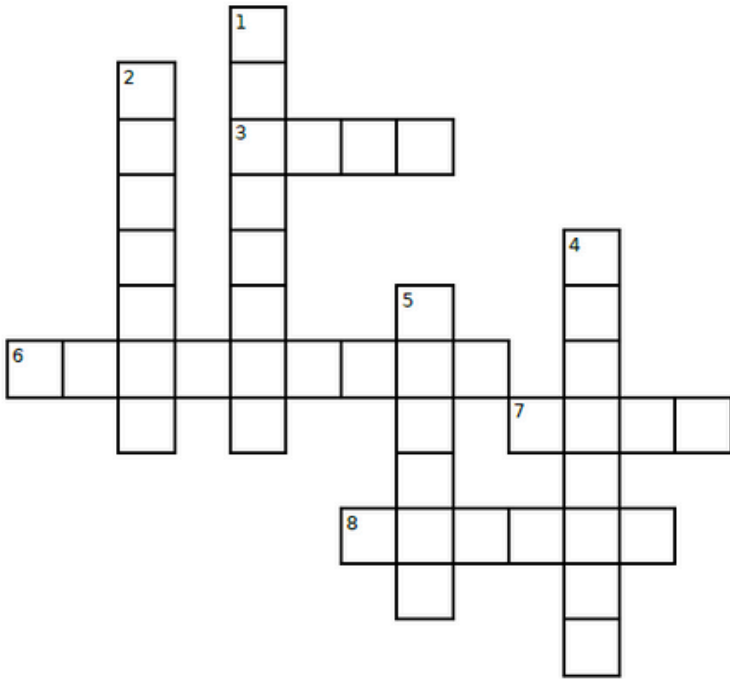
### CLUES

#### DOWN

1. A turbine built in the ocean is called an \_\_\_\_\_ turbine.
2. The tall machine that catches wind to make electricity.
4. The effect caused by Earth's spin that makes wind curve.
5. One turbine blade might be a different \_\_\_\_\_ so birds can see it.

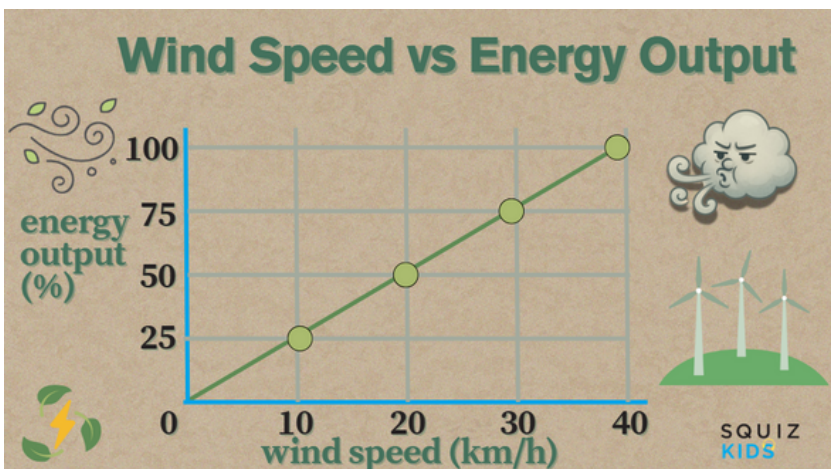
#### ACROSS

3. A group of turbines working together is a wind \_\_\_\_\_.
6. The machine inside a turbine that makes electricity.
7. The moving air around us that can be used to create power.
8. A curtain created to shield whales from noise is called double \_\_\_\_\_.



GENERATOR, COLOUR, WIND, BUBBLE,  
CORIOLIS, TURBINE, OFFSHORE, FARM

4. Gust loves a good graph! Below is a chart showing how fast the wind blows compared to how much electricity a turbine can make. Study the data carefully, then use your science skills to solve the questions that follow.



a. What happens to the energy output when wind speed goes from 10 to 20 km/h?

- ☐ It goes up.
- ☐ It goes down.
- ☐ It remains the same.

b. At which wind speed is this turbine making maximum power?

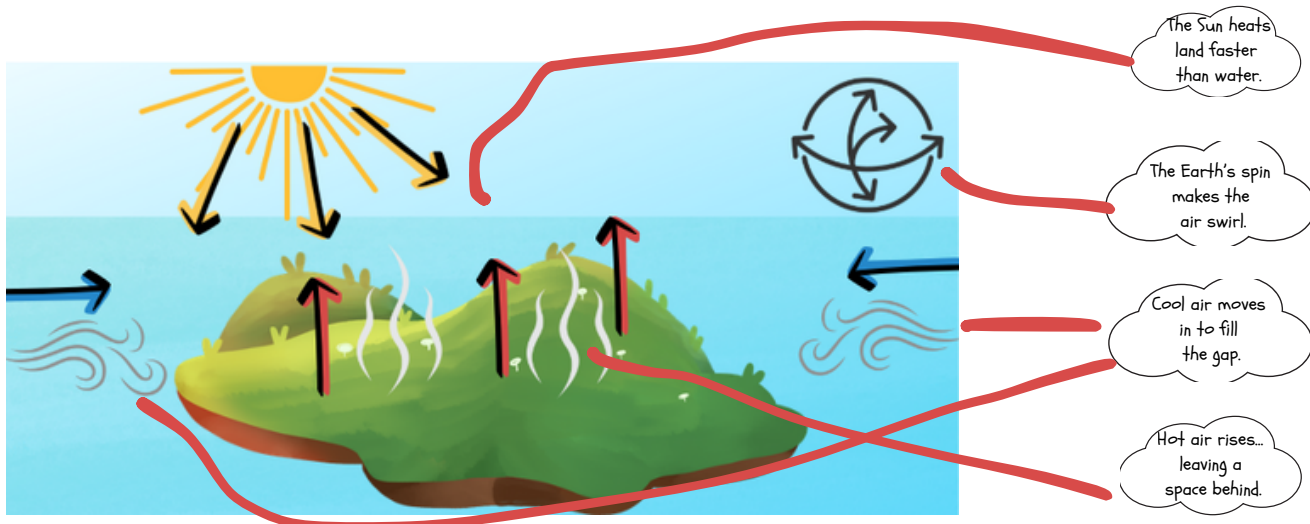
c. Why do you think wind turbines are often built in open, windy places like hills or out at sea?





## ✓ Planet Warriors: Wind — Solutions

### Activity 1: Gust and the Case of the Curious Current!



### Activity 2: Wind Energy Myth Busters

- a. Needs more evidence.      b. false      c. true      d. false

### Activity 3: Wind Words Crossword



### Activity 4: Wind Data Detective

- a. It goes up.
- b. 40 km/hr
- c. Open, windy places give steady airflow and fewer obstacles.