

Storm Tracking

Name: Answer Guide

Date: _____

Vocabulary

Compass - a tool used to show the current directions based on Earth's magnetic field.

Map - a scaled drawing of an area that shows physical features of the space.

Storm - a disturbance of the Earth's atmosphere that usually causes strong winds, rains, thunder, or snow.



Introduction

Stormy Days

- 1 How do storms affect us? Think of a time that your day was affected by a storm. What happened? Draw an image or write words that describe this experience.

Example - There was a rain storm that lasted 6 days and there was so much flooding on the roads that we had no school. My brother and I kayaked on our front lawn.

- 2 Why do you think it might be important to predict storms before they happen?

It is important to predict storms so we can prepare our homes for what the storms might bring. We can also try to stay safe by not driving in bad weather.

Activity 1

Using a Compass with Maps

- 1 To best track and predict where storms are moving, it is important to know the direction that the storm is traveling, which requires a compass. The maps below each have a compass.

Label the compasses with the directions - North, South, West, and East.



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2 Now we will use Ari's Compass to read a map.

- Place Ari on your desk.
- Turn your map below so that the compass rose on the map looks exactly like the compass on Ari.
- Keep your map in this orientation and place Ari onto the  on the map.
- Now practice reading the map using Ari.

Determine which direction each location is from your location, which is indicated as this icon: 



Home

South



Fishing spot

East



Your boat

Southwest



The bridge

West



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Activity 2

Tracking a Storm

The map below is an enlarged map showing where your town is located on the larger island. We know that the mountain range is East of your town. Position Ari on the square so that the mountains are on Ari's East. Now tap "Set North" on Ari so that Ari can help track the storm.



island!

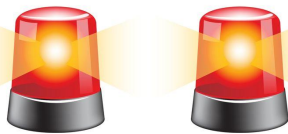
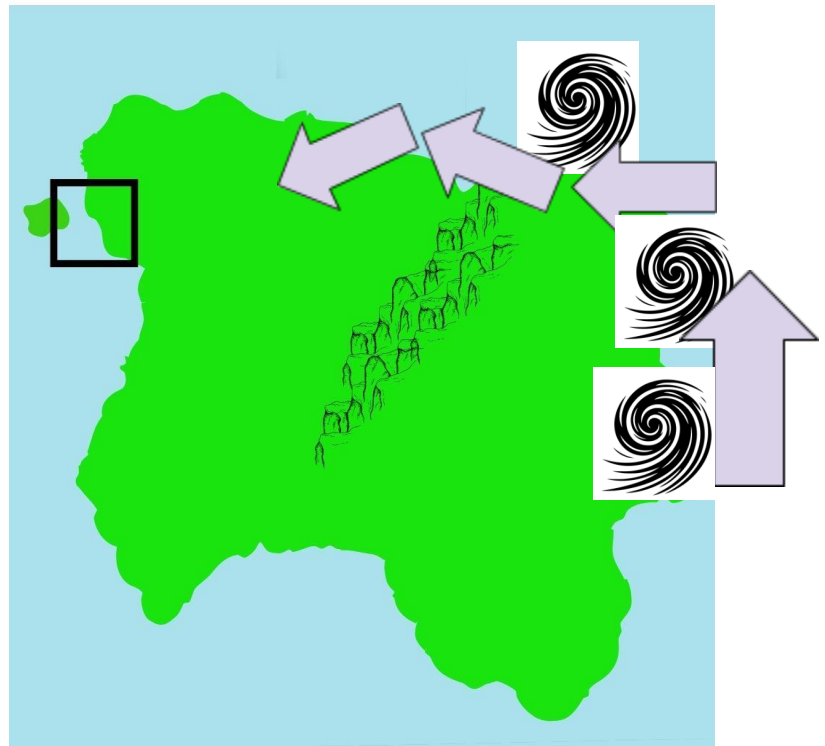
Monday - There has been a major storm spotted off the eastern coast of the

The storm is moving Northeast. Use Ari to locate the storm and draw an arrow to show the direction of the storm's movement on the map.

Move Ari in the direction that the storm is headed on the map.

Should we alert the town? Why or why not?

No, it is on the other side of the island.



Wednesday - The storm has changed course, traveling north up the eastern coast and then west, making its way over the mountains. Draw additional arrows to show the direction of the storm's movement after Monday. Move Ari in the direction that the storm moved on the map.

Should we alert the town? Why or why not?

Yes, it is now heading our way and we should prepare for the storm.

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Exit Ticket

- The map below shows a local town. The house with the red star is located west of the house with the white star. Position Ari on the blue circle and use this information to set Ari's North. Follow the instructions below.
 - ☐ A storm is coming to your town from the west and moving east. Circle the house(s) that will be affected first.
 - ☐ You are currently in the building with the red star on the front. Draw a path that will help you escape the storm. **Routes may vary. One example is shown.**



- How can a compass be used to predict a storm's movement?

A compass helps to determine the direction that a storm is moving and can help predict where it will go next by warning the people in the area in that direction.