Name: _____ Date: _____

Finding Islands Without a Compass: Wayfinding

Circle group

Long ago, people of the Pacific sailed across thousands of miles of open sea. They settled islands spread over a huge area. They used double-hulled sailing canoes. They had no compasses or maps. Their way of finding a path is called wayfinding.

A wayfinder watched the sky. Stars rise and set at the same spots on the horizon each night. A navigator who knew where certain stars appeared could steer all night. He moved from one star to the next. By day, the sun was a guide.

The sea gave clues too. Swells move in the same directions for long distances. A good navigator could feel them through the hull as he lay in the canoe. Near land, the swells bend in a new way. Birds helped. Some fly out to sea in the morning to fish and come back at dusk. So their path pointed home. Clouds over an island can have a green tint. That told of land not yet in sight.

People memorized all this. They taught it to students in chants and stories. In 1976, a modern canoe sailed from Hawaii to Tahiti with these old ways. It showed the skills were real and sure.

Questions

1. What boats did the Pacific voyagers use?

_____

_____

2. How did stars help a navigator steer all night?

_____

_____

3. How did swells help a navigator?

_____

_____

4. How was wayfinding passed on?

_____

_____

5. Why would a bird flying out in the morning point toward land?

_____

_____

6. What did the 1976 trip show?

_____

_____

Words to know

navigator: a person who plans and guides the route of a ship or canoe
horizon: the line where the sky seems to meet the land or sea
swells: long, smooth waves that move across the open sea
hull: the main body of a boat

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Finding Islands Without a Compass: Wayfinding

Triangle group

Centuries ago, the people of the Pacific crossed thousands of miles of open ocean and settled islands scattered across an area larger than any continent. They did it in double-hulled sailing canoes, without compasses, charts, or written maps. Their method is called wayfinding.

A wayfinder watched the sky first. Stars rise and set at the same points on the horizon each night, so a navigator who memorized where certain stars appeared could steer toward a target all night long, moving from one star to the next as each climbed too high. By day, the sun served as a guide.

The ocean offered clues as well. Steady swells travel for great distances in set directions, and a skilled navigator could feel their pattern through the hull while lying down in the canoe. Near land, the swells bend and bounce in a different way. Birds helped too. Some kinds fly out to sea in the morning to fish and return to land at dusk, so their flight paths pointed toward home. Clouds that gather over an island, and a faint green tint on their undersides, hinted at land still out of view.

Knowledge like this was memorized and passed from teacher to student, often through chants and stories. In 1976, a modern voyaging canoe sailed from Hawaii to Tahiti using only these traditional methods. The trip proved that the old skills were not myths. They were a precise and reliable science of the sea.

Questions

1. What kind of boat did the Pacific voyagers use?

_____

_____

2. How could stars help a navigator steer all night?

_____

_____

3. How did swells help a navigator?

_____

_____

4. How was wayfinding knowledge passed on?

_____

_____

5. Why would a bird flying out in the morning point toward land?

_____

_____

6. What did the 1976 voyage show?

_____

_____

Words to know

navigator: a person who plans and guides the route of a ship or canoe
horizon: the line where the sky seems to meet the land or sea
swells: long, smooth waves that move across the open sea
hull: the main body of a boat
reliable: able to be trusted to work well

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Finding Islands Without a Compass: Wayfinding

Square group

Centuries ago, the peoples of the Pacific crossed thousands of miles of open ocean and eventually settled islands scattered across an expanse of sea larger than any continent. They accomplished this in double-hulled sailing canoes, without compasses, charts, or written maps of any kind. Their remarkable method of finding a path is known as wayfinding.

A wayfinder studied the sky first. Because stars rise and set at the same points on the horizon each night, a navigator who had memorized where certain stars appeared could hold a steady course throughout the darkness, shifting from one star to the next as each climbed too high to be useful. During the day, the sun served as his guide.

The ocean supplied further clues. Steady swells travel for enormous distances in fixed directions, and an experienced navigator could sense their pattern through the hull while lying down in the canoe. Close to land, the swells bend and rebound in a distinctive way. Birds were helpful as well. Certain kinds fly out to sea each morning to fish and return to land at dusk, so their flight paths pointed toward home. Clouds that gather above an island, and a faint green tint beneath them, hinted at land that was still hidden from view.

All of this knowledge was memorized and handed down from teacher to student, frequently through chants and stories. In 1976, a modern voyaging canoe sailed from Hawaii to Tahiti using nothing but these traditional methods. The journey proved that the ancient skills were not legends. They formed a precise and dependable science of the sea.

Questions

1. What kind of vessel did the Pacific voyagers sail?

_____

_____

2. How could the stars help a navigator hold a steady course all night?

_____

_____

3. How did ocean swells assist a navigator?

_____

_____

4. How was wayfinding knowledge handed down?

_____

_____

5. Why would a bird flying out to sea in the morning point toward land?

_____

_____

6. What did the 1976 voyage demonstrate?

_____

_____

Words to know

navigator: a person who plans and guides the route of a ship or canoe
horizon: the line where the sky seems to meet the land or sea
swells: long, smooth waves that move across the open sea
hull: the main body of a boat

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Finding Islands Without a Compass: Wayfinding

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Finding Islands Without a Compass: Wayfinding

Easier · 199 words · Flesch-Kincaid grade 2.6

1. Double-hulled sailing canoes.
2. Stars rise and set at the same spots, so he could follow one star after another.
3. They move in set directions, and he could feel them through the hull.
4. People memorized it and taught students in chants and stories.
5. Those birds come back to land at dusk, so land is near where they come from.
6. That the old skills really worked.

Triangle: Finding Islands Without a Compass: Wayfinding

This passage · 242 words · Flesch-Kincaid grade 6.5

1. Double-hulled sailing canoes.
2. Stars rise and set at the same points on the horizon, so the navigator could follow one star after another.
3. They travel in set directions, and the navigator could feel their pattern through the hull.
4. It was memorized and taught from teacher to student, often in chants and stories.
5. Those birds return to land at dusk, so the island must be near where they come from.
6. That the traditional navigation skills really worked.

Square: Finding Islands Without a Compass: Wayfinding

Harder · 264 words · Flesch-Kincaid grade 8

1. Double-hulled sailing canoes.
2. Stars rise and set at the same points on the horizon, so he could steer by one star after another.
3. They travel in fixed directions, and he could sense their pattern through the hull.
4. It was memorized and taught from teacher to student, often through chants and stories.
5. Such birds return to land at dusk, so an island lies near where they come from.
6. That the ancient navigation skills genuinely worked.