

Ari's Afternoon Adventure

Name: _____

Date: _____

Vocabulary

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

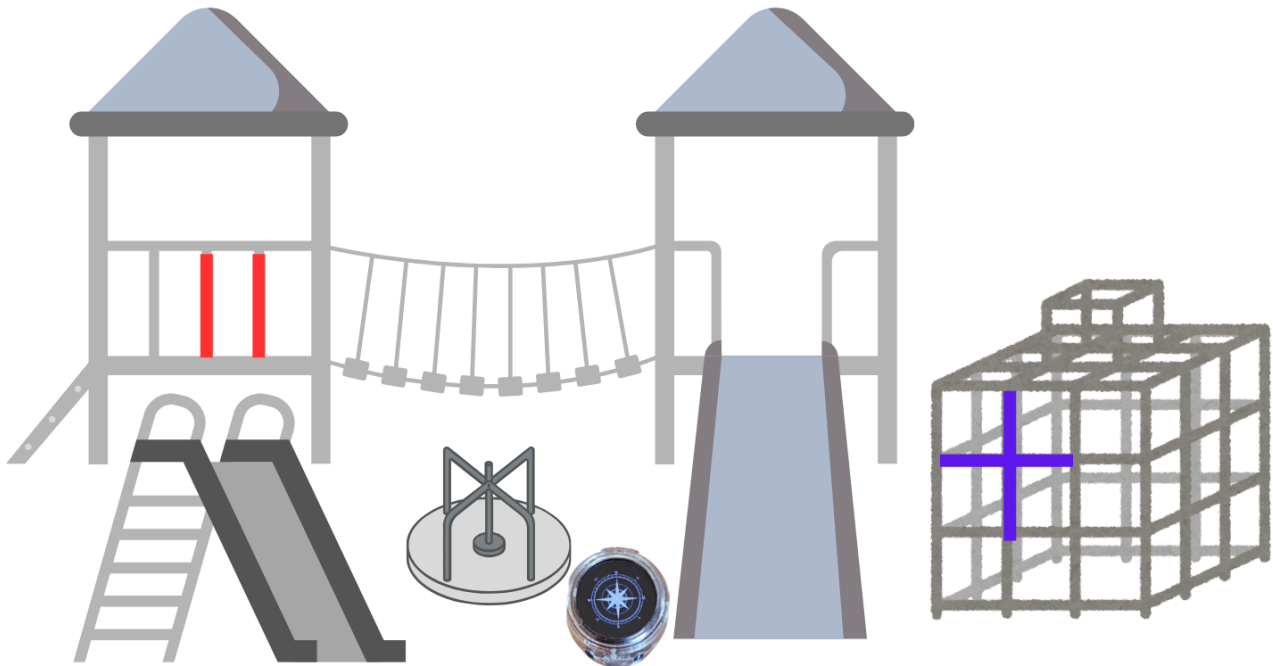
Perpendicular Lines - two lines that intersect at a right angle with one another

Parallel Lines - two lines that never intersect and remain the same distance apart

Introduction

Parallel and Perpendicular Lines

Ari's playground is full of fun obstacles for Ari to try. Let's find parallel and perpendicular lines within their playground.



- 1 Find three sets of parallel lines within Ari's playground and color them red.
- 2 Find a set of perpendicular lines within Ari's playground and color them blue.



Ari's Afternoon Adventure

Name: _____

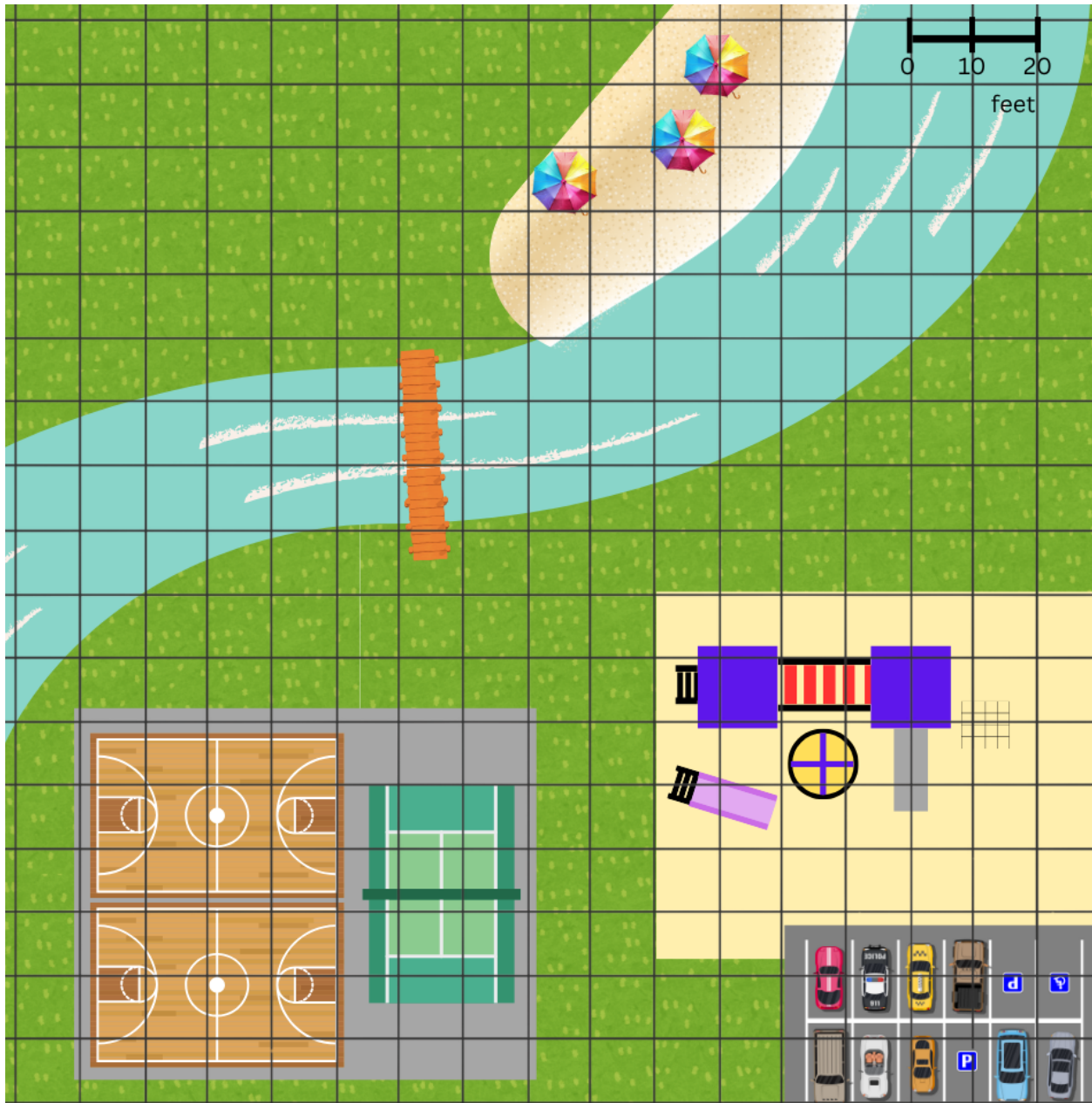
Date: _____

Activity 1

Ari's Afternoon

Ari gets all spun around on the merry-go-round. Help Ari orient themselves to the map so they can find their way.

- 1 Knowing that the tennis court is south of the bridge, orient Ari and set Ari's north so they can navigate the map.



Ari's Afternoon Adventure

Name: _____

Date: _____

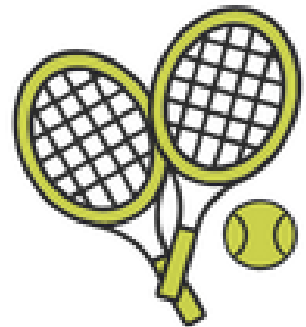
2 Ari is at the beach and hears an ice cream truck arrive in the parking lot by the playground. Ari really wants ice cream.

- Draw the path that Ari should take to get to the parking lot in the least amount of time without getting wet.
- Once Ari is on the bridge, what direction should Ari move? _____
- Is the bridge parallel or perpendicular to the river? _____
- After crossing the bridge, would Ari have to adjust direction at all to stay on the grass and get to the parking lot? _____
- How far does Ari have to travel? _____



3 Ari's sister was napping under the umbrella furthest north on the beach. They decide to meet Ari at the basketball court after first swimming directly across the river. Draw a path to show Ari's sister's path.

- What direction did she travel to cross the river? _____
- What direction would she travel after crossing the river to stay on the grass and walk along the river? _____
- When she is walking alongside the river, is she walking parallel or perpendicular to the river? _____



Ari's Afternoon Adventure

Name: _____

Date: _____

Activity 2

What's Next for Ari?

1 Ari and their sister are on the tennis courts. They are deciding their options for what's next. Use Ari's compass and the map to outline their choices.

Options	What direction would they move?	How far would they travel?
Playground		
Fishing from the bridge		
Basketball		
Back to the beach		

2 They decide to go fishing from the bridge.

- Draw the path they would take to the center of the bridge.
- They cast their fishing line directly off the eastern side of the bridge. Once it is cast, is their fishing line parallel or perpendicular to the bridge? _____
- The river seems to be flowing in the opposite direction that they cast their lines. What direction is the river flowing? _____
- The fish are swimming right under the bridge, but Ari and their sister are not catching anything. Are the fish swimming parallel or perpendicular to the flow of the water? _____



Ari's Afternoon Adventure

Name: _____

Date: _____

Exit Ticket

Ari and their sister spend time fishing together. After their long day, they need to get their towels that they had left on the beach and return to the parking lot to drive home. Write a set of directions that they could follow to get them there. Include distances and directions.

Criteria for Success:

- Correct use of geometry terms parallel and perpendicular to describe turns or angles
- Accurate use of compass directions (north, south, east, west) and distance words or measurements
- Directions are organized in a clear, step-by-step sequence that someone could follow to reach the destination
