ROBOTIC ACTIVITY MAT

Habitat Helpers

Summary: Help return animals to their correct habitat. With this fun cross-curricular mat! Students will start with an animal and have to figure out not only which habitat that animal belongs to, but also how to program their robot to safely navigate the map and bring that animal home.

Features:
- Fits up to 8 students
- Teaches various habitats
- 2 Helpful worksheets
- 8 Awesome game pieces

Objective: Students will program their robot to bring animals to their correct habitat.

Skills taught: Programming, critical thinking, problem solving, habitat awareness, and sequential based navigation.

Game Pieces (8 Total):

BrainStorm STEM EDUCATION
Curriculum & Robot Mat Developed By

Activity 1: Habitat Helpers

Using code, program your robot to navigate from the starting compass squares to the correct habitat zones based on the specific animal in possession. Students may work in groups consisting of: 2 students, and 1 robot.

How to Use:

1. Robots will start in one of the four themed-compass squares located near the corners of the mat.

2. Analyze the course and visualize the direction(s) needed for the robot to navigate through the map to the habitat (Tip: program your code 2 sequential commands at a time).

3. Code the sequential navigation commands into the robots program.

4. Place the robot in the specific starting square, place the animal puck in the robot's possession, and execute the program.

5. Repeat steps 2-4 until the robot has returned the animal back to their correct habitat.

6. Complete steps 1-5 for each animal.

For best results: Have students use and deliver specific animals depending on the starting square they are using: **Zebra-Striped Compass:** start with Penguin or Deer. **Snake-skin Compass:** start with Hippo or Sea Turtle. **Tiger-Striped Compass:** start with Polar Bear or Octopus. **Giraffe-Spotted Compass:** start with Lion or Monkey.

Worksheet 1: Habitat Helpers
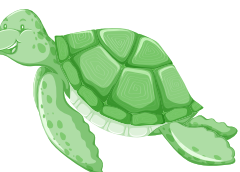
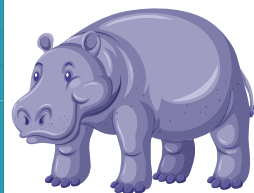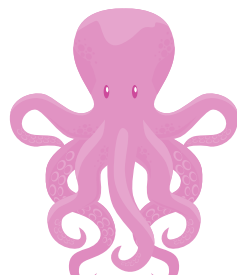Can you draw arrows to where the animals belong?

LION

DEER

MONKEY

TURTLE

Glacial

Polar

Grassland

Mountain

Swamp

Rainforest

Coastal

Ocean

PENGUIN

POLAR BEAR

HIPPOPOTAMUS

OCTOPUS

*See Page 4 for Answer Key

Worksheet 1: Habitat Helpers

Instructor Answer Key

Glacial

Polar

Grassland

Mountain

Swamp

Rainforest

Coastal

Ocean

LION
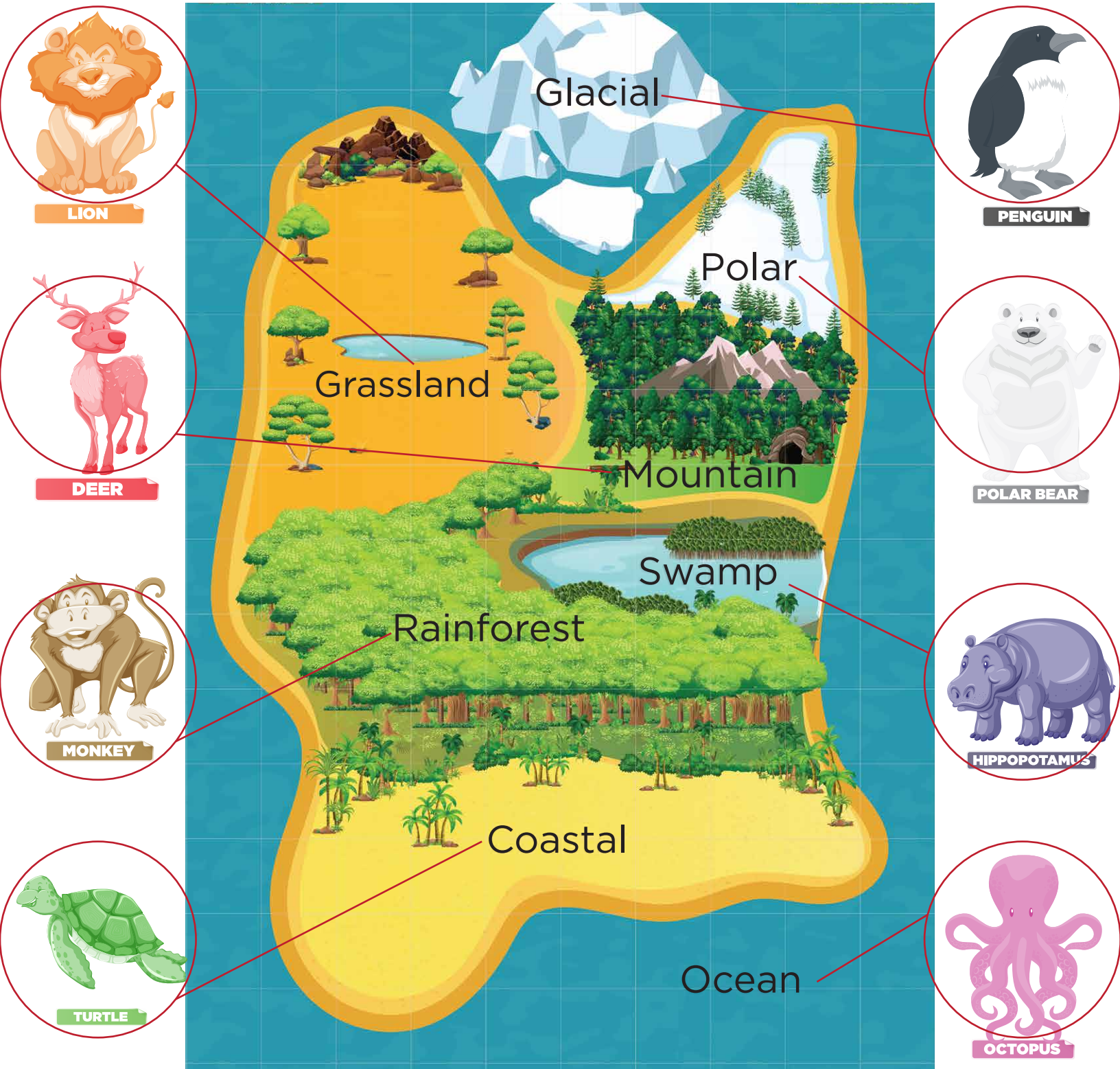
DEER

MONKEY

TURTLE

PENGUIN

POLAR BEAR

HIPPOPOTAMUS

OCTOPUS

Worksheet 2: Habitat Helpers

Can you name all the animals and their habitats based off their description?

I prowl the tall grass in blazing heat. I am a _____
I live in the _____ Habitat.

I like iceberg nights in black and white. I am a _____
I live in the _____ Habitat.

I hide in the hills behind tall trees. I am a _____
I live in the _____ Habitat.

I live in the North Pole way up high. I am a _____
I live in the _____ Habitat.

I swing from trees far and wide. I am a _____
I live in the _____ Habitat.

I am hungry, hungry as i snort and grumble. I am a _____
I live in the _____ Habitat.

I live in the water, but take breaks in the sand. I am a _____
I live in the _____ Habitat.

I blend in with the floor in the sea I hide. I am a _____
I live in the _____ Habitat.

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Worksheet 2: Habitat Helpers

Instructor Answer Key

I prowl the tall grass in blazing heat. I am a **Lion.**
I live in the **Grassland** Habitat.

I like iceberg nights in black and white. I am a **Penguin.**
I live in the **Glacial** Habitat.

I hide in the hills behind tall trees. I am a **Deer.**
I live in the **Mountain** Habitat.

I live in the North Pole way up high. I am a **Polar Bear.**
I live in the **Polar** Habitat.

I swing from trees far and wide. I am a **Monkey.**
I live in the **Rainforest** Habitat.

I am hungry, hungry as i snort and grumble. I am a **Hippopotamus**.
I live in the **Swamp** Habitat.

I live in the water, but take breaks in the sand. I am a **Sea Turtle**.
I live in the **Coastal** Habitat.

I blend in with the floor in the sea I hide. I am a **Octopus**.
I live in the **Ocean** Habitat.