



## Maggie's Weekly Activity Pack!

Name \_\_\_\_\_

### **A Royale Isle**

**Isle Royale is a National Park that is an island. It sits in Lake Superior Maggie and friends take a trip to this park. They want to see the streams and lakes. They want to walk the forest trails. They'd like to sit on the Lake Superior beaches. Go with Maggie, Jenny, Kuma, and Yoshi as they visit this national park.**

*Read to learn more about Isle Royale. Then answer the math problems.*

#### **A. Getting to Isle Royale**

You won't find cars in this national park. It is an island in the northern part of Lake Superior. This lake has the shape of a wolf's head. Isle Royale is the eye of the wolf!

This park is a National Park of the United States, but it is only about 15 miles from Canada. It is 73 miles from

Houghton, Michigan. This park is a wilderness area. You must take a boat or a seaplane to reach Isle Royale.

Maggie wants to know if she should take a seaplane or boat to the island. She knows the plane leaves Houghton at 11:00 am and arrives on the island at 11:30 am. The boat leaves at 9:00 am and arrives on the island at 3:30 pm. How many hours does Maggie save by taking the plane?

**Maggie saves \_\_\_\_\_ hours by taking a seaplane to Isle Royale.**

Maggie knows it will cost \$94 for each round trip boat ride. How much will it cost for Maggie, Yoshi, Kuma, and Jenny to go to the island and come back again?

**It will cost Maggie, Kuma, Yoshi, and Jenny \_\_\_\_\_ to go to the island and come back again.**

## **B. Hiking Isle Royale**

This park is a wonderful place to hike. There are 165 miles of trails to enjoy. Kuma and Yoshi get up early. They see a moose pawing and splashing in the water. In the afternoon the boys see red fox, colorful birds, and signs of wolves. The boys stop for the night at a campground. As the moon rises, they hear the howl of wolves.

Each day the boys hike 10 miles. If they spend 8 days on Isle Royale, how many miles have they hiked?

**Kuma and Yoshi have hiked \_\_\_\_\_ miles in 8 days.**

How many more miles must the boys hike if they want to walk all of Isle Royale's trails?

**Kuma and Yoshi must hike \_\_\_\_\_ more miles if they want to hike all of the trails on the island.**

### **C. Take Only Pictures – Leave Only Footprints**

Kuma wants to take pictures of the island and the animals. He packs his bag with 2 film rolls of 24 pictures each and 2 film rolls of 36 pictures each. How many pictures can Kuma take?

**Kuma can take \_\_\_\_\_ pictures.**

Kuma then decides he wants to take 30 pictures of moose, 15 pictures of wolves, 40 pictures of white-tailed deer, and 12 pictures of black bear. If he does this, how many pictures will he have taken?

**Kuma will have taken \_\_\_\_\_ pictures.**

Yoshi points out to Kuma that he can't do this. There aren't any deer or bear on this island. This is surprising! There are lots of bear and deer in Canada and Michigan. But this is an island. Now Kuma will take more pictures of the beautiful island. He goes to Greenstone Ridge to do this.

#### **D. Greenstone – One Word, Two Meanings**

The word "greenstone" has two meanings on this island. Greenstone Ridge is named for a lava flow. It is found on the island. Then it goes under Lake Superior. It is up to 800 feet thick. You see it again on land 50 miles later in Michigan. It is one of the earth's largest and thickest lava flows.

Greenstones can also be found on Isle Royale's beaches. These greenstones are pea-sized green pebbles. Jenny is excited about these stones. They are Michigan's state gemstone. Jenny finds 7 greenstones on Monday, 4 greenstones on Tuesday, 14 greenstones on Wednesday, 6 greenstones on Thursday, and 11 greenstones on Friday. How many greenstones did Jenny find?

**Jenny found \_\_\_\_\_ greenstones.**

On Friday, a park ranger told Jenny that she could take pictures or draw the greenstones. But she could not take them with her. This is a Park Service rule. Jenny was disappointed. But she did understand why this was important. She drew the interesting patterns on each of the stones. She loved these patterns that looked like a turtle's back.

If Jenny puts 6 drawings on each page of her sketch book, how many pages will she use?

**Jenny will use \_\_\_\_\_ pages in her sketch book.**

### **E. Moose and Wolves – Environmental Harmony**

Moose did not come to Isle Royale until early in the 1900's. They came from Canada which is only 15 miles away. Wolves came in 1948-49. That winter an ice bridge formed from Canada to Isle Royale. A small pack of wolves crossed this ice bridge.

There is environmental harmony between wolves and moose on Isle Royale. Many biologists study these animals. They learn how the wolves and moose depend on each other. Weak and old moose are hunted by the wolves. This keeps the moose population healthy and provides food for the wolf.

Maggie learned that a bull moose lives in an area that has the food it likes. This is birch, aspen, and willow. If this moose eats 60 pounds of food a day, how many pounds of food will it eat in five days?

**The bull moose will eat \_\_\_\_\_ pounds of food in five days.**

A female moose eats 50 pounds of food each day. If the bull moose and female moose are in an area how many pounds of food will they eat in 5 days?

**The bull moose and female moose will eat \_\_\_\_\_ pounds of food in 5 days.**

Maggie, Yoshi, Jenny, and Kuma were sorry when they had to leave Isle Royale. They hoped to revisit it by looking at Kuma's pictures, Jenny's drawings, and by finding out more information on the Internet.

Dear Colleague,

I hope your students enjoy this integrated math activity. Many of the problems are multi-step requiring students to use their answer from the previous step to arrive at a final conclusion. The amount of reading makes this a good activity to show them that math problems aren't always a simple calculation in a book. The last problem is one population biologists deal with all the time. You can emphasize this to show the interrelatedness between science and math.

In addition to math, your students will learn a bit of science, for example, the predator/prey relationship between wolves and moose is presented. They'll be exposed to social studies topics – national parks, state gemstones, etc. To provide further integration between subject areas, you could ask your students to write what they learned about Isle Royale from completing this math activity. You could also assign a creative writing project - Imagine yourself hiking along Greenstone Ridge, what would you see and do? What if a wolf appeared on the trail? Your students could be sitting in a campground at night listening to the howl of the wolf. For your budding artists, suggest they sketch greenstones or moose foraging in the swamps of Isle Royale.

I also hope you will take advantage of the many wonderful websites and their amazing photographs of Isle Royale to help your class picture this unique national park.

Kathy

### **Answer Key**

#### **A. Getting to Isle Royale**

Maggie saves **6** hours by taking a seaplane to Isle Royale.

It will cost Maggie, Kuma, Yoshi, and Jenny **\$376** to go to the island and come back again.

#### **B. Hiking Isle Royale**

Kuma and Yoshi have hiked **80** miles in 8 days.

Kuma and Yoshi must hike **85** more miles if they want to hike all of the trails on the island.

#### **C. Take Only Pictures – Leave Only Footprints**

Kuma can take **120** pictures.

Kuma will have taken **97** pictures.

#### **D. Greenstone – One Word, Two Meanings**

Jenny found **42** greenstones.

Jenny will use **7** pages in her sketch book.

#### **E. Moose and Wolves – Environmental Harmony**

The bull moose will eat **300** pounds of food in five days.

The bull moose and female moose will eat **550** pounds of food in 5 days.