



Lakes and Streams

“Then God said: Let the water teem with an abundance of living creatures, and on the earth let birds fly beneath the dome of the sky. God created the great sea monsters and all kinds of crawling living creatures with which the water teems, and all kinds of winged birds. God saw that it was good, and God blessed them, saying: Be fertile, multiply and fill the water of the seas; and let the birds multiply on the earth. Evening came, and morning followed-the fifth day. –Genesis 1:20-23

Introduction

The majority of the earth’s surface is covered in water. This abundance of water serves as an ecosystem, teeming with wildlife. It also has great potential as a source of renewable energy when cared for and used properly. In this pod, we will investigate aquatic ecosystems through plant and animal identification, discover what aquatic wildlife reveals about the health of an ecosystem and water source, and discuss what adaptations aquatic wildlife make due to seasonal changes. We will further examine water cycles, explore the capacity for water as renewable energy, and determine ways in which to conserve water in our everyday lives.

Student Performance Objectives

Through participation in this activity students will:

- Explore aquatic ecosystems
- Identify macroinvertebrates through observation of physical characteristics
- Determine the quality of a water source using specimens found in the lakes and streams
- Demonstrate understanding of the earth’s water cycle
- Discover the effect of human consumption and seasonal changes on aquatic ecosystems
- Learn water safety and basic canoeing skills
- Inspire wonder and awe

Archdiocesan Standards

- 4th Grade Life Science, From Molecules to Organisms: Structures and Processes 1
- 4th Grade Earth and Space Science: Earth and Human Activity 1
- 5th Grade Earth and Space Science; Earth and Human Activity 1
- MS-LSI-5
- MS-LS2-1
- MS-LS2-4
- MS-ESS2-5
- MS-ESS3-3
- MS-ESS3-4
- 4th Grade Religion 7
- 6th Grade Religion 6

Activities

- Lake Exploration
 - Students will explore the lake ecosystem and its aquatic life via canoe (age, ability, and weather dependent.) In this activity, will also learn water safety and basic canoeing skills. In addition, students will discuss the importance of water and water conservation.
- Pollution Tag
 - Some organisms are extremely affected by pollution; others are hardly affected at all. In this fun game of tag, students will discover the impact of pollution on macroinvertebrates and the health of an ecosystem.
- Stream Study: Determining the Health of a Water Ecosystem
 - Students will search for organisms, collecting them for observation. Using identification charts to identify macroinvertebrates, they will determine the relative health of the stream or lake.