

# 1<sup>st</sup> Grade

SCIENCE ZONE

FIELD TRIPS

**Theme:** Life Science

**Topic:** Butterfly Life Cycles

**DESCRIPTION:** This lesson helps students understand the unique adaptations of a butterfly throughout each stage of its life. Students will explore the life cycle of the butterfly and how adaptations such as coloration and camouflage help butterflies survive as eggs, caterpillars, and butterflies.

**OBJECTIVES:**

- Students will demonstrate an understanding of a butterfly life cycle by acting out and identifying each stage.
- Students will model the adaptation of camouflage by creating their own butterfly to blend in with a background assigned to them.

**NGSS & WY Science Standards:**

**LIFE SCIENCE: 1ST**

- 1-LS1-1

**Theme:** Space Science

**Topic:** Sun, Moon, Stars

**DESCRIPTION:** In this lesson, students will investigate how the sun, moon and stars move relative to each other and how they affect our lives. Students will explore the differences between day and night, how earth's rotation causes day and night, and some of the benefits of sunlight and darkness.

**OBJECTIVES:**

- After making observations and using tools, students will be able to explain that only half the Earth and half the Moon are ever lit by the Sun at one time.
- Students will be able to explain some of the many benefits of sunlight, including heat and energy.

**NGSS & WY Science Standards:**

**EARTH SCIENCE: 1ST**

- 1-ESS1-1
- 1-ESS1-2

**Theme:** Engineering

**Topic:** Supply & Demand

**DESCRIPTION:** This lesson introduces students to the engineering process. Students work towards meeting the demand of a good back scratch. Problem solving is of great importance as they work through the process with limited budget and supplies.

**OBJECTIVES:**

- Students will demonstrate an understanding of budget use by using the provided budget tracking sheet.
- Students will demonstrate an understanding of the engineering process by submitting, plans, a budget, and a final product.

**NGSS & WY Science Standards:**

**ENGINEERING: 1<sup>st</sup>**

- K-2-ETS1-1
- K-2-ETS1-2
- K-2-ETS1-3

# 1<sup>st</sup> Grade

SCIENCE ZONE

FIELD TRIPS

**Theme:** Life Science  
**Topic:** Animals & Their Offspring

**DESCRIPTION:** Students explore the difference in raising children. This lesson encourages students to think about how they learn and how animals learn. Students discover how animals communicate and identify their children.

**OBJECTIVES:**

- Students will explore the different ways animals raise their offspring.
- Students will experiment with different ways animals communicate.

**NGSS & WY Science Standards:**

**LIFE SCIENCE: 1<sup>st</sup>**

- 1-LS1-1
- 1-LS1-2
- 1-LS3-1

**Theme:** Physical Science  
**Topic:** Light Energy

**DESCRIPTION:** Students explore how light travels when it comes into contact with different surfaces. Students will also learn how we are able to refract light in order to see color.

**OBJECTIVES:**

- Students will demonstrate an understanding of light waves by refracting white light to produce a rainbow.

**NGSS & WY Sciences Standards:**

**PHYSICAL SCIENCE: 1<sup>st</sup>**

- 1-PS4-2
- 1-PS4-3

**Theme:** Physical Science  
**Topic:** Sound Energy

**DESCRIPTION:** Students explore the movement of sound over water to help them visualize how sound moves as waves. Students will be able to see that the pitch of sound corresponds to the frequency, or length, of the waves.

**OBJECTIVES:**

- Students will demonstrate an understanding of how sound transfers energy by describing their observations as they adjust the pitch of sound while it is in contact with water.

**NGSS & WY Science Standards:**

**PHYSICAL SCIENCE: 1<sup>ST</sup>**

- 1-PS4-1