



# Night Vision

*“Again Jesus spoke to them, saying, ‘I am the light of the world; he who follows me will not walk in darkness, but will have the light of life.’ –John 8:12*

## Introduction

We were created with some incredible night vision capabilities but often don’t give ourselves a chance to find out what our eyes can really do. We usually have streetlights, flashlights, or lights from buildings or vehicles doing the work for us. As we explore the night without the use of flashlights, we will investigate the topics of cones and rods, color detection, and night vision to gain a better understanding of the intricacy with which God created us.

## Student Performance Objectives

Through participation in this activity students will:

- Demonstrate appreciation for the beauty and intricacy of God’s creation
- Explain the function of cones and rods as light enters the eyes
- Explain why humans cannot detect color in the dark

## Archdiocesan Standards

- 4<sup>th</sup> Grade Physical Science; Waves & Their Applications in Technologies for Information Transfer 2
- MS-LSI-8
- 4<sup>th</sup> Grade Religion 7
- 6<sup>th</sup> Grade Religion 6

## Activities

- Disappearing Heads:
  - In this activity, students stand about 10 feet away from a partner. Without moving, the partners will stare directly at the other’s head. After a few seconds, their head will seem to disappear. The students can make it “reappear” by shifting their eyes so that their partners’ head is in their periphery.
- Color Identification
  - Using crayons with no labels, students guess what color they think they are writing with. After the hike, the group will check to see if their guess was correct.
- Camouflage
  - Think you are good at hide-and-seek? Try playing at dusk! In this game, students will hide along a designated path, and without moving from the path, a seeker will try to identify those hiding. Having a hard time? Try focusing on movement instead of color!
- Wintergreen Mints
  - With a partner, students will take turns biting into wintergreen mints and watching the reaction taking place in their partner’s mouth due to triboluminescence.
- Pirate Patch
  - After night vision has been established, the students will cover one eye so that no light can enter. A candle will be lit and the group will focus their attention on it as information is conveyed. Once the candle has been blown out, students will discover the true reason that pirates wore patches.