



## **Intermediate 3-5<sup>th</sup> Grade STEM Classes (Science, Technology, Engineering, and Mathematics)**

### **The Circle of Life: God's Beautiful Order through Ecosystems**

**Mrs. Allen**

Communities exist from the smallest of organisms to human life; all demonstrating God's orderly nature. Students will observe water life ecosystems, create a terrarium and aquarium, and analyze the impact of pollution on ecosystems.

### **The Great Desert Island Challenge**

**Mrs. Jones**

Join the three day adventure into survival using the students understanding of forces, measurement, and energy! Students will have three challenges: building a shelter, making a catapult to ward off pesky pirates and to construct a boat to escape the island!

### **Pollution Solutions**

**Mrs. Kinsel**

How do different pollution problems in our world provide an opportunity to learn and become good stewards of what God has given? How can we use science, math, and technology to be a part of the solution?

### **Boats, boats, boats!**

**Mrs. Cooper/Mrs. Wilson**

Jump aboard and learn about a variety of different kinds of boats, displacement, buoyancy, and why boats are made from various materials. We will make a splash with experimenting and building a variety of boats and testing our hypothesis considering wind and weight for each boat that we make! We are excited to see God's pattern and order demonstrated as we explore the forces (buoyancy, displacement, wind power He has created) when conducting experiments with boats.

## **Discovery Boxes**

**Mrs. Gooch**

Students put on their lab coats to engage their scientific brains and discover mysteries of our world through Discovery Boxes! Materials will be provided to explore how airplanes aviate, colors coalesce, and bubbles boggle what we know about gravity! Through trial and error mixed with lots of fun, 3-5<sup>th</sup> grade students will become master inquisitors!

## **Technology & Life Skills:**

**Mr. Huseland**

Have you ever wondered how video games are made? Discover the applications of Minecraft to life skills by experiencing how God has designed us to produce useful ideas in PROGRAMMING, LOGIC GATES, and IMAGINATION labs.

## **Primary STEM Investigations (1<sup>st</sup> and 2<sup>nd</sup> Grade)**

### **Light it up!**

**Mrs. Orr**

Let's investigate how electricity works through hands-on circuits, magnetic fields, and static properties by applying the scientific method. See how electrons behave as evidence of how God uses even the smallest parts of matter (electrons) to work in an orderly way for people to experience the benefits of electricity in their everyday lives.

### **Living and Nonliving**

**Mrs. Trembecky**

God is the giver of life, but how do we know if something is alive? We will be exploring living and non-living properties through stations in the classroom, scavenger hunts and comparing and contrasting gummy worms and real worms.

### **Bubbling Bubbles!**

**Miss Doornink**

After testing out three different brands of dish soap, students will learn how to make a bubble solution that really works! They will also be able to engineer their own bubble wand as well as investigate how to make square bubbles!

## **Catapult Competition**

**Mrs. Sander**

We are God's workmanship designed to create and solve problems! Students will investigate and create with spoons, craft sticks, rubber bands, marshmallows, and pompons exploring the notion of motion while experimenting with materials to find the best and most accurate way to move objects from one place to a target. Testing out hypotheses will inform our experiments with student-created catapults with the grand finale of this investigation a catapult competition.

## **Chemical and Physical Change**

**Mrs. Segalla**

How do chemical and physical changes demonstrate the orderly and precise nature of God? Stemologists will create invisible ink messages, toothpaste big enough for an elephant, and see how heat affects matter as they conduct experiments and draw inferences and conclusions.

## **Can we Build It? Yes, we can!**

**Mrs. Donahoe**

God is the Great Designer of an orderly universe (Psalm 8:3-4), and He has given humans who are made in His image the desire to create. Students will endeavor to build the tallest and sturdiest towers with various materials by working in teams to design tower structures using ordinary items experimenting with index cards; toothpicks; and spaghetti.

## **Bubbling Bubbles!**

**Miss Doornink**

In this class, we're going to learn more about the creativity of God as we investigate the science behind bubbles. After testing out three different brands of dish soap, students will learn how to make a bubble solution that really works! They will also be able to engineer their own bubble wand as well as investigate how to make square bubbles!