

PHYSICAL SCIENCE	
Motion and Stability: Forces and Interactions	Kindergarten
SCRIPTURE	
<i>God is our refuge and our strength, an ever-present help in distress</i> Psalms 46:2	
STANDARD	
<p>S. 1. Exploring God’s beautiful world through his creations, plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.</p> <p>S. 2. After utilizing our God given gifts and creations as tools, analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or pull.</p>	
EXAMPLES	
Parables, Scripture, Literature, Saints	
ESSENTIAL QUESTIONS	
Using our God given physical abilities, what would happen to an object if we push or pull it harder? Softer?	
VOCABULARY TERMS	
push, pull, force, strength, motion	

### Parables

The Parable of the Mustard Seed

-Mark 4:30-32, Matthew 13:31-32, Luke 13:18-19

The Parable of the Lost Sheep-Luke 15:4-7

### Scriptures

Story of Creation (Genesis 1:1-2;4) (Genesis 2:6-25)

Retell or illustrate the Birth of Jesus (Luke 18:15-17)

Annunciation (Luke 1:28-38)

Guardian Angels (Luke 1:26-36)

## Literature

*And Everyone Shouted, "Pull!": A First Look at Forces and Motion* (First Look: Science) by Claire Llewellyn

*Move It!: Motion, Forces and You* (Primary Physical Science) by Adrienne Mason and Claudia Dávila

*Motion: Push and Pull, Fast and Slow* (Amazing Science) by Darlene R. Stille and Sheree Boyd

The Golden Press Children's Bible

Peter Rabbit, Tom Kitten, Benjamin Bunny and others

Aesop's Fables by Jerry Pinkney

## Saints

St. Nicholas (sleigh)

Mary, Mother of God

St. Michael

St. Gabriel

## Activities

S.1-The Way of the Cross- Discussing the Stations of the Cross, have students pull a wagon or laundry basket with a jump rope tied to it with several books in it role playing Jesus pulling the Cross. Ask students to push the books keeping in mind what Jesus endured. Ask which needed more force or strength.

S.2-Domino Design- Pass out three different biblical map designs with a designated start and stop spot with three X's that the dominoes have to pass through. As a team, have students discuss how they will design a solution for their domino fall. Have them set up and practice it before trying a different map.



PHYSICAL SCIENCE	
Energy	Kindergarten
SCRIPTURE	
<i>God said: Let there be light, and there was light</i> Genesis 1:3	
STANDARD	
<p>S. 1. God created light, investigate the effect of sunlight on the Earth's surface of sand, soil, rocks, and water.</p> <p>S. 2. Living out God's calling and protecting the Earth, use tools and materials to design and build a structure that will reduce the warming effect of sunlight on variations of the Earth's surface.</p>	
EXAMPLES	
Parables, Scripture, Literature, Saints	
ESSENTIAL QUESTIONS	
How does sunlight warm the Earth's surface?	
VOCABULARY	
effect, sunlight, observations, data, collect, comparison	

### Parables

Houses Built on Rock and Sand (Luke 6:47-49)

The Sower (Matthew 13: 1-9)

### Scripture

Story of Creation (Genesis 1:1-2;4) (Genesis 2:6-25)

### Literature

*Jump Into Science: Sand* Paperback by Prager

*Ricky, the Rock that Couldn't Roll* by Jay Miletsky

Aesop's Fables by Jerry Pinkney

Wonder Book for Boys and Girls

The Bears of Hemlock Mountain

### Saints

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### Activities

S.1- Effect of Sunlight on Earth's surface- Using six small containers such as small pottery plant holders or cups, fill them with soil, plants, ice, sand, rocks, and water. Have students feel all of the examples of the Earth's surface with one finger observing the shape and temperature of each. Record in science notebooks their observations. Place a heat lamp (artificial sun) over the examples of the Earth's surface for the entire school day. Have students feel each example at the end of the day and discuss and record their observations. Did any of the examples change? Did any of them feel differently? If so, how?

Place a piece of white and black piece of paper outside on a warm sunny day for the school day. Have students feel before and after in hopes that the black paper is a lot warmer than the white paper. Explain to the students that the white paper reflects the sunlight, while black paper absorbs sunlight and is warmer. Discuss how why this is important to know and how this affects the Earth's surface.

S.2- Parking Garage- Give each group a toy car, stacking cubes, popsicle sticks, tape, legos, white paper and black paper. Tell the students that they have been hired to engineer and design a garage to protect an antique car that cannot be in sunlight. Help guide the students in making the decision to the best color of paper to use and designing a garage that allows no sunlight in touching the car. Allow the students to work together and explain when the time is up, the teacher will come around with a flashlight (artificial sunlight) to test their design with the classroom lights off. It is helpful to move the sunlight in the direction the sun would rise and set to help students get a real life visual. If time allows, discuss how the structure could be improved and allow students to make edits.

LIFE SCIENCE	
From Molecules to Organisms: Structures and Process.	Kindergarten
SCRIPTURE	
<i>Are not two sparrows sold for a small coin? Yet not one of them falls to the ground without your Father's knowledge</i> Matthew 10:29	
STANDARD	
S. 1. Describing the relationships, underlying order and meaning in God's creation of living things, use observations to describe patterns of what plants and animals (including humans) need to survive.	

EXAMPLES
Parables, Scripture, Literature, Saints
ESSENTIAL QUESTIONS
How does our Creator want us to take care of plants, animals and humans?
Vocabulary
observe, habitat, life, media, patterns, scientific questions, plants, survive, animals, humans

### Parables

The Parable of the Mustard Seed

Mark 4:30-32, Matthew 13:31-32, Luke 13:18-19

The Parable of the Lost Sheep-Luke 15:4-7

### Scripture

Story of Creation (Genesis 1:1-2;4) (Genesis 2:6-25)

Retell or illustrate the Birth of Jesus (Luke 18:15-17)

Annunciation (Luke 1:28-38)

Guardian Angels (Luke 1:26-36)

### Literature

*Noah's Ark* (Caldecott Honor Book) by Jerry Pinkney

*Goodnight, Ark* by Laura Sassi and Jane Chapman

*Noah's Ark* (Little Golden Book) by Barbara Shook Hazen and Mircea Catusanu

The Story of PIng

Tim to the Rescue

Aesop's Fables by Jerry Pinkney

## Saints

St. Nicholas

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St. Gabriel

## Activities

S.1- After discussing examples of the evident beauty of God's creation of plants, animals and humans differ from what they need to survive, have each student bring in a small shoe box and ask for donations of small figurines of a certain habitat, for example, Grasslands, Tundra, Rainforest, or Prairie. Provide construction paper, tissue paper, animal figurines, cotton balls, or anything that would be suitable for the habitat of your choice. Explain to the students that they will make a miniature model of God's creation of the habitat explaining that they will need plants, animals and humans in their model and what they need to survive; food, water, shelter and clothing.

EARTH AND SPACE SCIENCE	
Earth's Systems	Kindergarten
SCRIPTURE	
<i>All the days of the Earth, seedtime and Harvest and cold and heat, summer and winter, and day and night shall not cease</i> Genesis 8:22	
STANDARD	
<p>S. 1. Using the Gift of our senses, use and share observations of local weather conditions to describe patterns over time.</p> <p>S. 2. Understanding God's relationship with man and nature, observe plants and animals (including humans), how can they change the environment to meet their needs? Construct an argument supported by evidence.</p>	
EXAMPLES	
Parables, Scripture, Literature, Saints	
ESSENTIAL QUESTIONS	
Knowing God created weather for a purpose, describe the purpose of having rain, snow, sunlight, clouds and patterns in the weather?	
VOCABULARY	
describe, weather, sunlight, wind, rain, snow, temperature, cloudiness, patterns, measurable	

### Parables

Jesus Calms the Storm- Matthew 8:23-27

The Man Who Prayed about Weather-1 Kings 17-28

### Scripture

Story of Creation (Genesis 1:1-2;4) (Genesis 2:6-25)

Archangels: Michael and Gabriel (Lk 1:26-36)

Christmas (Luke 2:1-20)

### Literature

Aesop's Fables by Jerry Pinkney

*Ant and the Grasshopper*

*The Tortoise and the Hare*

*The Mouse and the Lion*

Peter Rabbit, Tom Kitten, Benjamin Bunny and others

*The Story of Ferdinand the Bull* (Leaf)



## Activities

S1) Everyday in circle time, discuss and chart the weather in terms of different types of weather and temperature changes each day. Also, chart the weather in the morning and afternoon, explaining that typically the sunlight warms the Earth throughout the day and when the energy of God's creation of the sun sets, the temperatures lower. Discuss patterns in weekly and seasonal differences as well.

Students can also fill in a weather journal to help visualize and illustrate the weather changes. There are free examples if searched in Teachers Pay Teachers.

S2) Discuss habitats of animals and how they use materials from God's Earth to help them survive. You could use a groundhog as an example in February and discuss Groundhog Day. Have students draw or make a model of where a groundhog lives and changes the environment to create complex burrow systems. They are herbivores and vegetation and sometimes insects. They increase their consumption to accumulate fat for reserve to hibernate for the winter. All of these discussions can be geared around how God created the world so that all living things would have what they need in their environment around them to survive.

EARTH AND SPACE SCIENCE	
Earth and Human Activity	Kindergarten
SCRIPTURE	
<i>Then God said: Let us make human beings in our image, after our own likeness. Let them have dominion over the fish of the sea, the birds of the air, the tame animals, all the animals, and all the creatures that crawl of the Earth</i> Genesis 1:26	
STANDARD	
S. 1. Understanding God's purpose and order in the world, construct a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.	
S. 2. Utilizing our God-given knowledge, ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	

S. 3. Explain the processes of conversation, preservation, overconsumption, and stewardship in relation to caring for what God has given us, discover how to reduce the impact of humans on the land, water, air, and/or other living things in the environment.

#### EXAMPLES

Parables, Scripture, Literature, Saints

#### ESSENTIAL QUESTIONS

How can you obtain information about the weather to protect all of God's creations of animals, humans, plants and the land?

#### VOCABULARY

weather, sunlight, cloudiness, wind, temperature, rain, snow, measurable, patterns, describe, record, severe, moderate, fair

### Parables

The Parable of the Mustard Seed

Mark 4:30-32, Matthew 13:31-32, Luke 13:18-19

The Parable of the Lost Sheep-Luke 15:4-7

The Parable of the sheep, gate and shepherd- John 10:1-5, 7-18

### Scriptures

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Retell or illustrate the Birth of Jesus (Luke 18:15-17)

Annunciation (Luke 1:28-38)

Guardian Angels (Luke 1:26-36)

### Literature

*Oh Say Can You Say What's the Weather Today?: All About Weather* (Cat in the Hat's Learning Library)  
Hardcover by Tish Rabe and Illustrated by Aristides Ruides

"WOW! Weather!" by Paul Deanno and Illustrated by Toby Mikle

*Katy and the Big Snow* by Virginia Lee Burton

*Noah's Ark* (Caldecott Honor Book) by Jerry Pinkney

### Saints

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St. Gabriel

### Activities

S1-Continuing discussion of daily weather, it is important for students to understand the vocabulary severe, moderate, and fair. Explaining how seasons manifest His wisdom, glory and purpose explaining these terms focusing on winter and spring. This can be explained in terms of Kindergarten language.

Severe=when the weather is unsafe to go outside. For example-Thunderstorm with lightning, blizzards, extremely low or high temperatures, Tornadoes or natural disasters

Moderate- Cloudy, raining with no lightning, windy, students might need a jacket or umbrella, snowing lightly

Fair-Sunny with temperatures comfortable to go outside without a jacket, Partly Cloudy

S2) Discuss how we can be good stewards to help protect God's Earth by reducing, reusing and recycling. Bring in a variety of items such as soda cans, milk jugs, newspapers, paper clips, old toys, etc. Have three boxes labeled with Reduce, Reuse, Recycle and have students have a class sort of these items. There are worksheets for continued practice of cut, paste and sort if searched.