



Creation Lens

Exploring the World, Discovering God

Grade Level: Grade 5

Title:

Gravity and God: The Two Big G's

Denomination: Catholic

Lesson ID: ES-G5-03-CA

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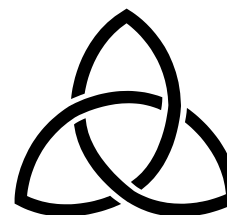
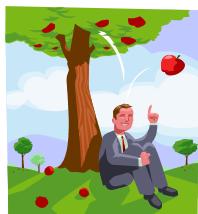
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Note: Web sites referenced in this lesson were valid at time of publication.

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EARTH SCIENCE – GRADE 5 – CATHOLIC

LESSON TITLE: Gravity & God: The Two Big G's

GENERAL CONCEPT: Stability

SCIENCE LESSON CONCEPT

- Gravity is the force that keeps most objects in the solar system in regular and predictable orbits

GOAL OF SCIENCE LESSON

- Students will learn how gravity works to keep objects in the solar system in regular orbits.

OUTCOME EXPECTED

- Students will show knowledge of gravity through demonstrations.

RELIGION LESSON CONCEPT

- God is always there for us, always predictable

GOAL OF RELIGION LESSON

- Students will learn that God is constant amid an ever-changing world.

OUTCOME EXPECTED

- Students will be able to give examples of people in their lives who are living examples of what it means and looks like to keep God as their center in the midst of turmoil.

MATERIALS NEEDED

- Science Journal page: Gravity
- Pen or pencil
- Yo-yo
- Tennis ball
- A string
- Eraser

SCIENCE METHODOLOGY

- **DEFINE** the term Gravity.
- **HAVE** the students write the term and definition on the Science Journal page.
- **USE** the yo-yo to show the effect of gravity.
- **HAVE** a student hold an eraser and let it go.
- **EXPLAIN** how gravity is the force that keeps the planets in a regular orbit around the sun.
- **USE** the tennis ball and string to demonstrate gravitational pull.
- **DISCUSS** the concept of orbits and space.

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MATERIALS NEEDED

- Religion Notebook/Journal
- Pen or pencil
- Stories from the Bible of God's covenant love for His people (Old and New Testament)

For example:

~Gen. 1: 26-31 – Creation of people

~Gen. 5: 9-22 – Noah

~Gen. 12: 1-3 – Abram

~Gen. 17: 1-8 – Abraham

~Gen. 22: 15-18 – Abraham's Obedience

~Deut. 7: 7-11 – Chosen People

RELIGION METHODOLOGY

- **DISCUSS** how God is THE constant in our lives.
- **ASK:** What does constant mean?
- **ACCEPT** student replies and then define the term for them.
- **HAVE** the students write the term and definition in the Religion notebook.
- **SAY:** God is the one constant (unchanging element) in our life in an ever-changing world.
- **ASK:** How is your world changing this year?
- **LIST** things we think are constant and evaluate if they really are. (friends, school, parents, grandparents, having money, being healthy)

- **SAY:** Without the gravitational pull of the sun the planets would crash into each other.
- **ASK:** Is there a reason why the earth is about 93 million miles away from the sun?
- **ASK:** Is there a reason why the earth has the mass it has?
- **SAY:** The mass of the earth and its distance from the sun determine the amount of gravitational pull the sun has on the earth and that determines the earth's orbit around the sun.
- **POSIT:** Constant and unchanging gravity keeps the planets in their orbit around the sun.

- **STUDENTS** should conclude that many things they think of as constant really are not.
- **SAY:** Just like gravity, God is the force that keeps us moving in a regular and predictable orbit toward Him as long as we choose to follow Him.
- **SAY:** Unlike the planets, we have free will and can choose to move out of orbit from God.
- **SAY:** God made a covenant with his people and has renewed that covenant many times. I am going to assign some Scripture passages for you to read. As you read, ask yourself "What is the covenant God made and why?"
- **SEE** Materials Needed for suggested passages or add your own.
- **ALLOT** time for the students to do the readings and answer the question.
- **DISCUSS** each of the passages you assigned and be sure you answer the questions: What was the covenant and why did God make the covenant?
- **POSIT:** God created us and is always with us. He has made a covenant with us to be there for us always. (Matthew 28:20)

SCIENCE LINKS

www.ehow.com/...science=projects-5th-gravity.html

[Science Fair Projects for the 5th Grade on Gravity | eHow.com](#)
Gravity is the force that keeps the **Earth** in orbit. All matter that has mass is affected by **gravity**. **Science** projects that involve **gravity** help teach students to ...

www.educaiton.com/.../informaiton=gravity=5th=grade=science

[Information on gravity for 5th grade science](#) ... need some basic information on **gravity** at **5th grade** ... information on **gravity** for **5th grade science** ... The chair is resisting force of **gravity** that the **Earth** ...

www.slideshare.net/Once175/5th-grade-earth-science

[5th Grade Earth Science - Upload & Share PowerPoint ...](#) **5th grade Earth Science**. Standard based. California ... Gravitational Attraction Hey **Earth**, How You Doin'? Lookin' Good Sun! **Gravity**

RELIGION LINKS

www.aboutcatholics.com/faith_beliefs/who_is_god

[Who is God? | About Catholics - Catholic Beliefs and Catholic ...](#) ... the belief in **God** there is no belief in the rest of the **Catholic** faith. **You** either believe in **God** ... **God** is **always** pouring out his love for us and it's up to us to turn to ...

www.zenit.org/article=14107?l=english

[God's Love Is a Constant in History, Says Pope](#) VATICAN CITY, SEPT. 28, 2005 (Zenit.org).- Benedict XVI invited the faithful to experience **God's love** in the vicissitudes of history as he offered a commentary on a ...

KEY WORDS

- GRAVITY
- FORCE
- GRAVITATIONAL PULL
- ORBIT
- PLANETS
- SUN
- SOLAR SYSTEM
- DISTANCE
- MASS

KEY WORDS

- CONSTANT
- PREDICTABLE
- COVENANT