



*Grade Level: Grade 4*

*Title:*

## **The Universe – Vast and Interactive & Church – Vast and Interactive**

*Denomination: Catholic*

*Lesson ID: ES-G4-01-CA*

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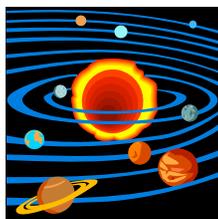
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***Note: Web sites referenced in this lesson were valid at time of publication.***

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## EARTH SCIENCE - GRADE 4 - CATHOLIC

LESSON 1 – The Universe is a vast, interactive system and the Church is a universal, interactive family

**NOTE: Teachers are advised to check their own curriculum and state standards to see if the Solar System is taught at this level. This lesson can be adapted for other levels.**

CONCEPT: Our Solar System and our Church System

### SCIENCE CONCEPT

The sun, planets and moons work together to make a system.

### GOAL OF SCIENCE LESSON

Student will learn the parts of our solar system.

### OUTCOME EXPECTED

Student will be able to name the major units of our solar system.

### MATERIALS NEEDED

- Styrofoam balls to make up the sun (largest) and the 8 planets, and some of the moons of the planets. (varying the appropriate sizes)

### RELIGION CONCEPT

The Church is a universal, interactive family.

### GOAL OF RELIGION LESSON

Student will understand why we need each other to be Church.

### OUTCOME EXPECTED

Student will understand why we need to stay connected to Jesus our Vine.

### MATERIALS NEEDED

- The Bible – Christ's teaching on the Vine and branches. See last page

- Signs or costumes for students as they act out the movements within the solar system.
- Science Journal Page: OUR SOLAR SYSTEM
- pen/pencil

#### SCIENCE METHODOLOGY

- **SAY:** The Universe is made up of thousands, perhaps millions of solar Systems.
- **SAY:** Each star is the center of a solar system. They are so far away from earth that even with the most powerful telescopes, we can't see much of them. We can study our own solar system.
- **ASK:** What is our star? (The sun)
- **ASK:** What do we get from the sun? (light, heat, energy)
- **SAY:** If the sun is the center of our solar system, what orbits the sun? (Planets) How many? (8). Do you know the name of any of the planets?
- **RECORD** the names of the eight planets.
- **SAY:** Each planet has a special place around the sun.

- Chart of the organizational church
- Pen/pencil
- Religion Notebook

#### RELIGION METHODOLOGY

- **ASK:** Who makes up the Church? Jesus Christ is the Head of the Church.
- **SAY:** Everyone in the Church is attached to Jesus our Vine. Just like leaves and grapes are fed by the Vine, it is important that we are firmly attached to Jesus and the Church. .
- **SHOW** the organization chart of the Church. Name and explain each part.

Names of the Hierarchy positions and people:

**Pope:** We need a visible head of the Church. That person is Pope Benedict XVI. He takes the place of Christ on earth.

There are many Cardinals, Bishops, Priests, Brothers, Sisters, and Lay People who help the Pope keep the Church firmly attached to Jesus our vine.

**College of Cardinals:**

- **SAY:** By using the balls and the sign (or costumes) we are going to make a living model of our solar system.
- **SELECT** a student for the sun, every planet, and the moons . you are going to include. Position the sun in the center; then call each planet in order and position the other planets in proportional distances from the sun. If a planet has a moon you are including, then call the moon and position it around its planet. Be sure to tell each planet how fast they are to go around the sun.

After the demonstration. Have the student draw the solar system in the Science Journal.

**POSIT:** The earth is part of our Solar System along with 7 other planets and moons.

The Holy Spirit helps the Cardinals elect the Pope in a secret ballot. The Cardinals are Bishops who have been chosen by a Pope to be a special advisor. They are often the heads of large departments in the Church. Some live in Rome near the Pope and others are sent all over the world to govern various parts of the Church.

### **Archbishops and Bishops**

Bishops are chosen by the Pope and assigned to a particular territory called an Archdiocese or Diocese. They are to be the chief teacher and shepherd of that region. The Pope sent (Arch)bishop \_\_\_\_\_ to be our )Arch) bishop.

Some places have other bishops to help the Archbishop. These bishops are called auxiliary (helping) bishops. In our Archdiocese we have Auxiliary Bishop \_\_\_\_\_ to help our Archbishop.

### **Pastor**

The bishop chooses the pastor of a parish. The pastor is sent to be the local shepherd of a parish and its people. He is responsible for the spiritual well-being of all the people who live within the parish boundaries. Our pastor is \_\_\_\_\_.

### **Parochial Vicars (Associate Pastors)**

The bishop sometimes sends other priests to assist the Pastor of a parish. They celebrate Mass and the Sacraments, advise people, and do whatever the pastor asks them to help with. Our Associate Pastors are \_\_\_\_\_.

**Transitional Deacons (if any)**

Transitional Deacons are seminarians who have been ordained a Deacon and will soon be ordained a priest. They are often assigned to help a pastor in a parish on the weekends during the last year of study for the priesthood. Our transitional deacon is \_\_\_\_\_.

**Permanent Deacons (if any)**

Permanent Deacons are men who study and are in formation for the Diaconate for about 6-8 years before being ordained to the permanent diaconate. They will never go on to be priests. They may be married before becoming a deacon. If their wife dies, they will not remarry. They can perform marriages, baptize, conduct Communion Services and other prayer services. The pastor assigns them duties in the parish to which they have been assigned by the bishop.

**Religious Men and Women**

Religious men and women (priests, brothers, monks, sisters and nuns) usually live in a community of their members, follow a religious rule, and take vows. They assist the Church by prayer, sacrifice, and work. They can be found doing almost all kinds of work.

**Lay People**

Lay people form the largest group of the Church. We are to hear and learn the Gospel message of Jesus and take it into every aspect of our life: our home, our work, our play.

## RESOURCES AND LINKS

### Science Links

(Teacher) <<http://www.solarviews.com/eng/solarsys.htm>>  
Names and locations of bodies in our solar system. Caution:  
still the old nine – now eight.

(Teacher) <<http://www.solarviews.com/eng/solarsys.htm>>  
Scroll down to find the chart with the proportional spaces  
between planets.

(Teacher) <http://www.solarviews.com/eng/homepage.htm>  
You can click on each celestial body to get more information.

(Student) <<http://www.solarviews.com/eng/homepage.htm>>  
Age appropriate information on all parts of the solar system;  
also a song.

(Teacher) [www.nineplanets.org/express.html](http://www.nineplanets.org/express.html)  
NOTE: There are now 8 planets.

### Religious Links

(Teacher) <<http://www.catholic-pages.com/church/hierarchy.as>>  
Short explanation of the hierarchy of the Church

(Student) <  
[www.faithfirst.com/html/popeJohn/election/election.html](http://www.faithfirst.com/html/popeJohn/election/election.html)>  
How the College of Cardinals chooses a new Pope.

(Teacher and Student) <  
<http://www.infoplease.com/ipa/A0922582.htm>>  
Good short definitions of the positions of authority within the  
Church.

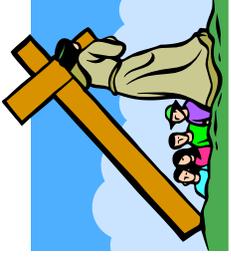
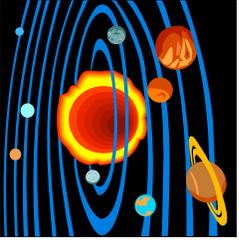
**KEY WORDS – EARTH SCIENCE – GRADE 4  
LESSON 1 – CATHOLIC**



**UNIVERSE  
INTERACTIVE  
SYSTEM  
SUN  
PLANETS  
MOONS  
MARS  
VENUS  
EARTH  
JUPITER  
MERCURY  
SATURN  
URANUS  
PLUTO  
NEPTUNE**

**CHURCH  
FAMILY  
VINE & BRANCHES  
HEAD OF CHURCH  
POPE  
CARDINALS  
BISHOPS  
PASTOR  
ASSOCIATE PASTORS  
DEACONS  
RELIGIOUS  
LAY PEOPLE**

**KEY WORDS – EARTH SCIENCE – GRADE 4**  
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**UNIVERSE**

**CHURCH**

**INTERACTIVE**

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