



Creation Lens

Exploring the World, Discovering God

Grade Level: Grade 4

Title:

Stages of Animal Growth & Stages of Human Growth

Denomination: Catholic

Lesson ID: LS-G4-06-CA

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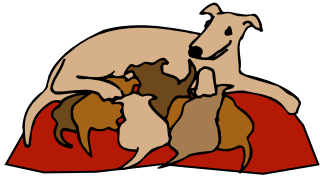
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Note: Web sites referenced in this lesson were valid at time of publication.

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LIFE SCIENCE MODULE – GRADE FOUR - CATHOLIC

LESSON 6: The Stages of Animal Growth and Development and Human Growth and Development

GENERAL CONCEPT: The stages of animal growth and development: conception, birth, youth, adolescence, adult, and old age are common to animals and humans.

SCIENCE LESSON CONCEPT

All animals pass through stages of growth and development.

GOAL OF SCIENCE LESSON

Student will learn and observe the various life cycles of animals.

OUTCOME EXPECTED

Student will come to respect all life and understand the life cycle.

RELIGION LESSON CONCEPT

Human beings grow and develop in different stages.

GOAL OF RELIGION LESSON

- Student will understand the growth and development of humans.
- Student will know that God is the creator and organizer of all life.
- Student will know that people are created in the image and likeness of God.

OUTCOME EXPECTED

Student will know that God shares his own life with us as we are created in God's image and likeness.

MATERIALS NEEDED

- Fertilized chicken eggs
- Incubator
- Brooder
- Chick feed
- Water feeder
- Science Journal Page: LIFE CYCLE OF CHICKENS
- A collection of animal life cycle stories and books
- Pen/pencil
- Marker/crayons
- Chart of growth and development of animals

SCIENCE METHODOLOGY

- **GIVE** each student a copy of the growth and development chart of animals which lists the 6 areas listed at the beginning of the lesson in the General Concept. This can be teacher made or a reproduction. **You can get charts at least on loan from your local Vet.**
- **USING** the chart the student will discuss the stages of animal growth and development in dogs and cats.

MATERIALS NEEDED

- Human sexuality Literature or textbook
- Bible
- Religion Notebook
- Pen/pencil
- Copy of a Time Line of Human Development

RELIGION METHODOLOGY

- **HAVE** the student read or read aloud the entire Genesis 1 story from the Bible.
- **SAY:** Everything was going according to God's plan in the Garden of Eden. Adam and Eve were made adults and would have been taken into heaven fully alive: body and soul. They chose to disobey God and so their punishment was that they could no longer walk and talk and see God. They would grow old, have

- **DEFINE** each of the 6 terms listed in the General Concept Section
- **SAY:** Animals grow up more rapidly than people do. A dog will be an adult in 3 years. We are still not able to take care of ourselves at 3 years old. Dogs usually die between 7-14 years old. People can live to be 70 or more years old.
- **EXPLAIN** the incubation project. Be sure everyone understands the rules of the experiment.
- **DISCUSS** the responsibility they are taking on. Life is sacred and if we decide to incubate these eggs, we must be ready to take good care of them.
- **SHOW** the student the incubator and its parts and how and why it works.
- **SHOW** the student the brooder and how it works.
- **DESCRIBE** the jobs they will have to do.
- **EXPLAIN** where the fertilized eggs came from and how long it will take the eggs to hatch into chicks.
- **HAVE** each student write a statement on the Science Journal Page to care for the eggs and chicks and sign it.
- **SET UP** the incubator and put in the eggs.
- **STUDENT** and label the set up.

bodies that became ill and are tired. From Adam and Eve, all the peoples of the earth came to be.

- **USE** the Human Development Chart (See links or the Human Sexuality Materials) to discuss the stages of life.
- **SAY:** People have growth and development stages. We are conceived in our Mother's womb with the assistance of our father. We grow and develop from one cell to babies ready to be born. Show the Conception area of the chart.
- **SAY:** At birth we leave the womb and are separate beings. We need adults to feed, cloth, and shelter us. Point out the Birth area of the chart.
- **SAY:** We are in the childhood stage until we are about 13 or 14 years old. We learn how to take care of ourselves during this childhood time. We continue to grow – getting our teeth, getting our balance, getting our teeth and learning to talk. We continue to grow taller and begin to lose the child looks and start to look more adults. Point out the Childhood stage on the chart.
- **SAY:** When we are 13-14 we are teenagers and enter into the adolescent stage of growth and development. We try to be more independent and do more and more things on our own or with our friends. We continue to grow and change until we totally look like young adults. Point out the Adolescence stage.

- **STUDENT** should carry out the responsibility given and observe and draw and write what they observe on the Science Journal Page each day until the hatching experiment ends.
- **REVIEW** the incubation and hatching process after the experiment is over. What development did you see? Why did you have to wait so long? (The chicks weren't developed enough to live outside the egg.)
- **POSIT:** The chicks will continue to grow and develop like all animals until they die.

- **SAY:** At about 21 years of age, we become adults. We are independent. We must be responsible for our own actions. We are out of school, have a job, and our own place to live. We have stopped growing and must work hard to keep in good physical condition. Point out the Adult Stage.
- **SAY:** We live as adults until we are about 65 years old and then we enter the aging stage. We move slower now and can't work as hard. We are becoming more physically weaker. We are heading for the end of our life. Our body parts start to wear out. We may get forgetful and need help to care for ourselves. Sometimes we end up as helpless as when we were born.
- **SAY:** Remember this was not God's plan for us. This is what happened because people thought they were better than God. God walks with us throughout our entire life. He is a loving parent who protects and helps us because we are created in His image. He wants us to come to heaven to be with Him forever.
- **SAY:** In your Religion Notebook make a time-line of your life from Pre-birth to your age now.
- **PUT** in the big events of your life: birth, first birthday, start Kindergarten, First Communion, join scouts, play first soccer games on that time line. Allow time for student to complete this task.
- **SAY:** There are spiritual events that have happened in your time-lines. What are some big events of your

spiritual growth in friendship with Jesus? (Baptism, First Reconciliation, First Communion)

- **HAVE** the students record the spiritual events on the time-line.
- **ASK:** What do you expect to happen in the next ten years of your life? Record answers on the board.
- **SAY:** Let's divide these into three groups: Physical, Social, and Spiritual. Give the student an example of each type. Have the student put a P, SO, or SP by each item. (Some might be: have a birthday party, graduate, be confirmed, start high school, get a bike, get a dog, move, and shape up.)
- **ASK:** What can you do to achieve your physical goals? Have student write these in the Religion Notebook
- **ASK:** What can you do to achieve your social goals? Record in the Religion Notebook
- **ASK:** What can you do to achieve your spiritual goals? Record in the Religion Notebook.
- **HAVE** the student create an art project which shows the student in ten years with the physical, social and spiritual changes.
- **DISCUSS** the projects.

- **POSIT:** Some growth and development comes to us because we are human. Other growth and development we can help along

RESOURCES, LINKS AND COMPUTER LESSONS

Science Links

(Student) Easy to read information on the stages of puppy and dog development.

www.dog-names.org.uk/puppy-behavior-growth-development.htm

(Teacher) The Life cycle of a Chick. Many projects

http://www.atozteacherstuff.com/Themes/Life_Cycles/Chicken_Life_Cycle/index.shtml

(Student or Student and Parent) Development of a chick

<http://chickscope.beckman.uiuc.edu/explore/embryology/>

Religious Links

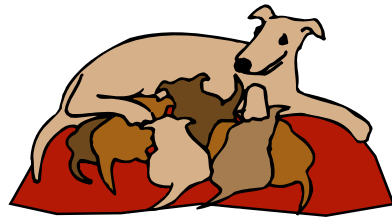
(Teacher) Photos and information on human development from womb to adulthood.

Computer Lesson

(Teacher) Information about chicken egg development with printouts.

www.enchantedlearning.com/subjects/birds/info/chicken.shtml

KEY WORDS
LIFE SCIENCE – GRADE FOUR - LESSON 6 - CA

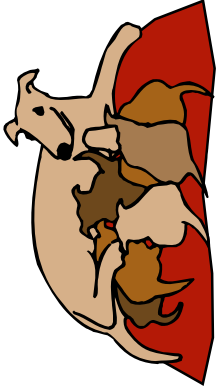


ANIMAL GROWTH
ANIMAL DEVELOPMENT
STAGES
RESPECT
CONCEPTION
BIRTH
ADOLESCENCE
OLD AGE
INCUBATOR
BROODER
HATCH



HUMAN GROWTH
DEVELOPMENT
CREATOR
ORGANIZER
STAGES OF LIFE
YOUTH
ADULT

KEY WORDS
LIFE SCIENCE – GRADE FOUR - LESSON 6 - CA



ANIMAL GROWTH

HUMAN GROWTH

ANIMAL DEVELOPMENT

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