



CALVERT™
PUBLICATIONS

2nd grade | Unit 1

SCIENCE

THE LIVING AND NONLIVING SCIENCE 201

Introduction |4

1. Living and Nonliving Objects.....6

How the Sun and Earth Formed |7

The Sea and Nonliving Things |8

Plants |9

The Sun and Moon |14

Birds and Fish |15

Living Things on Land |16

Self Test 1 |21

2. Rock and Seed Experiment 23

Self Test 2 |32

3. Natural Objects and Man-Made Objects 34

Natural Objects |35

Man-Made Objects |36

Materials in Man-Made Objects |38

Self Test 3 |41

Test |Pullout

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Learn with our friends!



When you see me, I will help your teacher explain the exciting things you are expected to do.



When you do actions with me, you will learn how to write, draw, match words, read, and much more.



You and I will learn about matching words, listening, drawing, and other fun things in your lessons.



Follow me and I will show you new, exciting truths that will help you learn and understand what you study. Let's learn!

THE LIVING AND NONLIVING



The earth has changed since it formed. As you study this workbook, you will learn what happened in Earth's history.

You will learn theories that help explain how the earth, sun, and moon were formed. You will learn about life on Earth.



Objectives

Read these objectives. They will tell what you will be able to do when you have finished this workbook.

1. You will be able to explain a theory describing how the earth, sun, and moon were formed.
2. You will be able to show the difference between living and nonliving objects.
3. You will be able to show what plants need to live and grow.
4. You will be able to tell which objects are man-made.

New Words

These words will appear in boldface (darker print) the first time they are used.

arctic (arc tic). Very cold place.

desert (de sert). Very hot place.

Earth. The world (planet) we live on.

environment (en vi ron ment). Everything living and nonliving.

forest (for est). Place where many trees grow.

living (liv ing). To be alive.

material (ma ter i al). What a thing is made from.

multiply (mul ti ply). To make more of the same.

natural resources (nat u ral re sour ces). Materials in nature that can be used by people.

nature (na ture). Everything not made by people.

nonliving (non liv ing). Never alive.

object (ob ject). Something you can see or feel.

plastic (plas tic). A man-made material.

reptile (rep tile). A creeping or crawling animal.

shelter (shel ter). Places to protect living things.

theory (the o ry). An explanation with facts.

wood. The material that comes from trees.

1. LIVING AND NONLIVING OBJECTS

The sun and the earth formed many years ago. Living and nonliving things can be found all over the earth.



Words to Study

arctic (arc tic). Very cold place.

desert (de sert). Very hot place.

Earth. The world (planet) we live on.

environment (en vi ron ment). Everything living and nonliving.

forest (for est). Place where many trees grow.

living (liv ing). To be alive.

multiply (mul ti ply). To make more of the same.

nonliving (non liv ing). Never alive.

object (ob ject). Something you can see or feel.

orbit (or bit). The repeating path an object takes around another in space.

reptile (rep tile). A creeping or crawling animal.

shelter (shel ter). Places to protect living things.

theory (the o ry). An explanation with facts.

Ask your teacher to say these words with you.



Teacher Check

Initial

Date

How the Sun and Earth Formed

One **theory** explains that many years ago, there was only a big, giant cloud in space. This cloud was made of dust and gas. As it got smaller and smaller, a star formed. This star is called the sun.



Rocks were also in space.

They crashed into each other to make planets. **Earth** was a very hot place when it was formed. Both water and the sky were missing. Over time, Earth slowly cooled down and gases were released. These gases cooled down to make water and the sky.



Write your answers in the blanks.

- 1.1 What two things were in the cloud to make the sun?
a. _____ b. _____
- 1.2 What is a **theory**? _____
- 1.3 What was Earth like before the water and sky formed?

- 1.4 What happened after Earth cooled down?

- 1.5 What was released to make the sky?

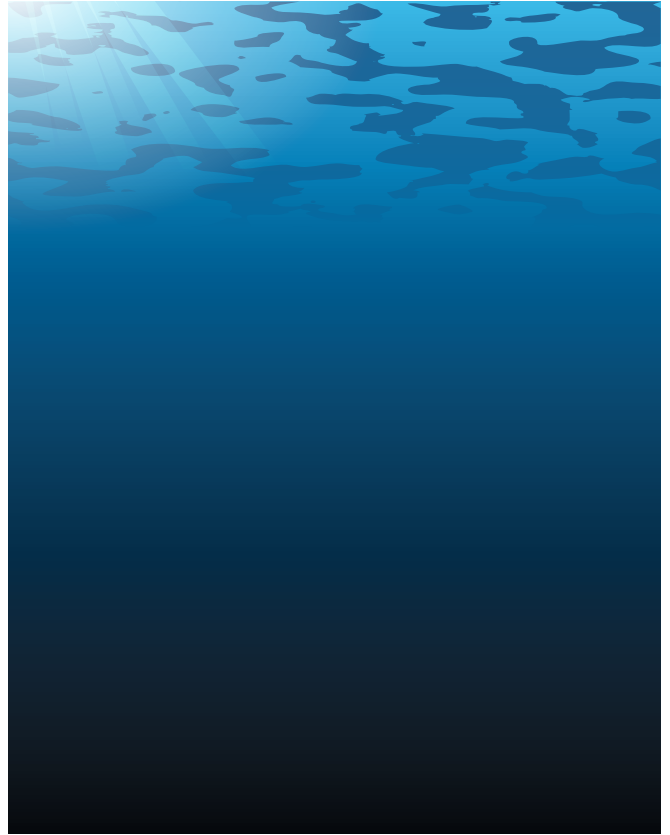
The Sea and Nonliving Things

The earth did not have an ocean when it was formed. It rained when the gasses cooled. It rained for a very long time. The rain filled low-lying areas on Earth.

The water is called the sea.

The dry land is called *earth*.

The sky, sea, and dry land are **nonliving** things. These **objects** do not need air, water, light, or food. These objects do not grow. They are not alive and do not move on their own. They have never been alive.



| The water is called the sea.



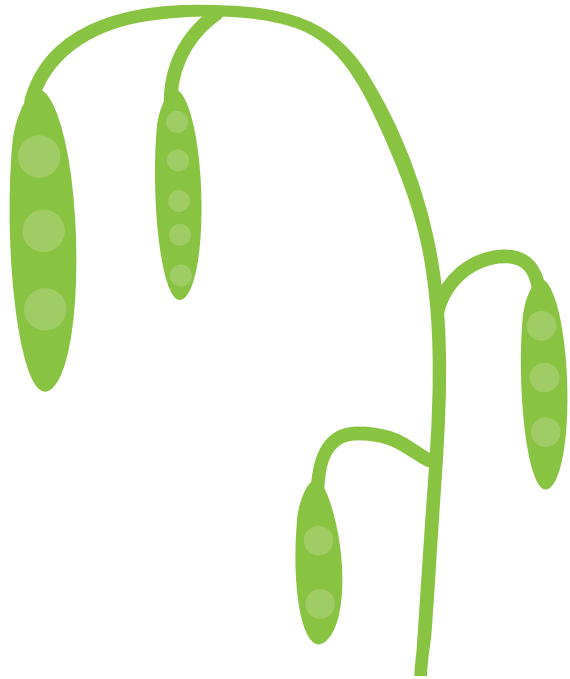
| The dry land is called *earth*.

Plants

The early Earth was mostly filled with water. Plants first grew in the water. Plants are **living** objects.

Plants began growing on dry land with the help of seeds. Grass and trees are types of land plants. They grow from seeds.

To grow, these plants need water, air, light, and food.



| Plants grow from seeds.

A living plant makes its food from the dirt of the earth, the light of the sun, water, and the air of the sky. A bean seed grows into a bean plant. Plants can make new plants from their seeds.



Write your answers in the blanks.

1.6

What does a plant need to live?

1.7

Where did the first plants grow?



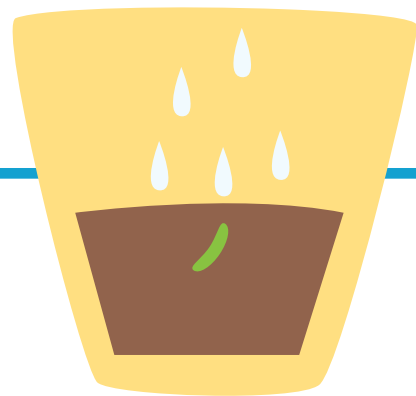
Try this!

These are things you need:

- bean seed
- earth (dirt)
- paper cup
- water

Follow these directions. Check the box when you have finished each step:

- ☐ 1. Write your name on the paper cup.
- ☐ 2. Write the date on this blank. _____
- ☐ 3. Fill the cup half full with the dirt.
- ☐ 4. Plant the seed in the dirt.
- ☐ 5. Water the seed.




Teacher Check

Initial

Date

1.8 How many days was it before your seed started to grow?

1.9 Draw a picture of your plant in this space.

A large, empty rectangular box with a thin gray border, intended for a student to draw a picture of their plant.



Do these activities.

- 1.10

What four things do living objects need to grow?

a. _____

b. _____

c. _____

d. _____
- 1.11

Why don't nonliving objects need air, water, light, and food?

- 1.12

Look around your home. What objects do you see that are not alive? Talk to an adult and write down five objects that you both see that are not alive.

a. _____

b. _____

c. _____

d. _____

e. _____



Teacher Check _____
Initial Date

1.13 Draw pictures below of some nonliving objects.



Take your work to your teacher.



Teacher Check _____

Initial

Date

Teacher comments _____

Review your work to check your answers.



Put a star in the box for your good work.

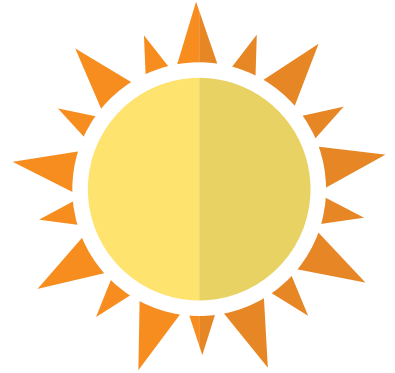
The Sun and Moon

The sun gives the earth heat and light.
We could not live on Earth without the sun.
We see the sun during the daytime.

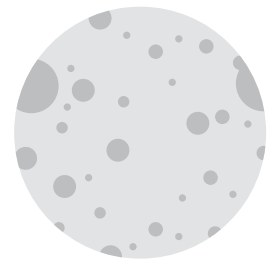
The moon **orbits** around the earth.
Light from the sun helps us see the moon.
We see the moon during the nighttime.

The sun and moon are nonliving because
they do not need food or water to grow.

The days help us tell time.
We count days to make weeks, months,
and years. The sun helps to make it summer,
autumn, winter, or spring. Summer, autumn,
winter, and spring are called *seasons* (sea sons).



| Sun



| Moon



Write your answers in the blanks.

1.14 What two objects do we see during the day and night?

a. _____ b. _____

1.15 What helps us see the moon? _____

1.16 What helps us tell time by the weeks, months, and years?

1.17 What are the four seasons?

a. _____ b. _____

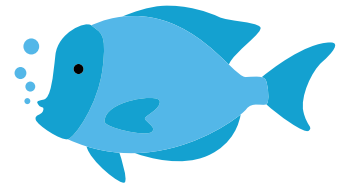
c. _____ d. _____

1.18 What does the sun give to Earth?

a. _____ b. _____

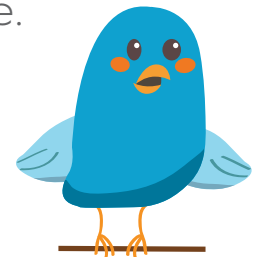


Birds and Fish



The earth provides light, water, air, food, and land.
Without these things, living creatures couldn't survive.

At first, just a few fish lived in the sea.
Only a few birds flew in the air. But over time,
birds and fish **multiplied**. More birds filled the earth.
This created many different types of birds.



More fish filled the sea. This created many different types of fish.

The birds and fish are living objects. To live, they need air, water,
light, and food. Birds and fish are animals.

Birds and fish have been on Earth for a long time.

Birds and fish will always be on Earth, if we take care of our planet.

Living Things on Land

Birds live on the land and fly in the air.

Fish live and swim in the sea.

Other animals live on the land, too.

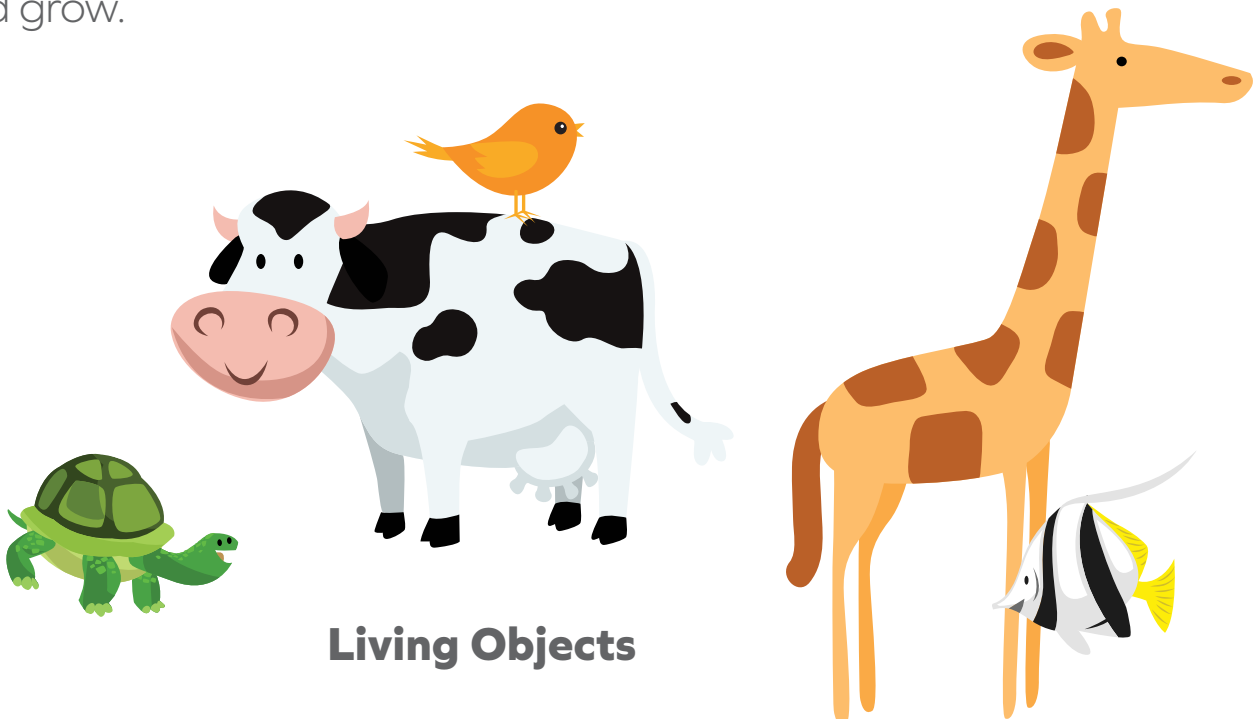
All animals need the same things to live and grow.

Animals need food, water, air, and **shelter** to live and grow.



Some animals like **reptiles** live in **deserts**. Some animals live in the **arctic**. Some animals live in **forests**. Other animals live in the sea. The places where animals live have everything they need to survive and grow.

Many different animals can live in the same place. The animals that live together have similar needs. Animals that live together live best in the same **environment**. The animals may eat similar foods and have similar shelters. All animals in the same environment need each other to live and grow.



Living Objects

SELF TEST 1

Each answer = 1 point

Use these words to write the correct answers in the blanks.

animals	Earth	night	sun
sea	reptiles	moon	

- 1.01** The _____ gives energy to all living things.
- 1.02** Some _____ live in deserts.
- 1.03** We see the _____ at _____.
- 1.04** Fish live in the _____.
- 1.05** All objects are found on _____.
- 1.06** Plants and _____ are living things.

Write the meaning for each of these words.

- 1.07** orbit _____
- 1.08** Earth _____
- 1.09** shelter _____



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