

Primary

Student
Book **1**

Science



+ Explore your book!

Richmond Solution BE Primary Science 1 includes nine units in four different areas of science: **Biology**, **Chemistry**, **Physics** and **Earth and Space**.

Each unit teaches a different topic.

Engage!

Start your adventure here! Think about what you already know about the topic. How does it relate to your life?

Explore!

Carry out an experiment or observation! This is a chance to explore the topic and your ideas. Make observations and draw conclusions.

Explain!

Read explanations of new ideas!

Extend!

Check your understanding and find out more!

UNIT 2

Living things

Engage!

Animal zoo!

Let's play an animal game! You and your friends are all animals. To enter the zoo, you must sing: In (your name's) zoo, everyone can stay, You, too—come and play! What sound does a (name of animal) make? Now, move and make the noise of the animal together! Can you roar like a lion?

- How are the animals in your zoo similar?
- What do animals and humans have in common?

Explore!

What is alive?

Objective: Find out about living and nonliving things.

Method

- Put each item on a plate.
- Observe each item. Notice its characteristics (size, color, texture) and the things that it needs.
- Note your observations in the table.

You will need

- ☐ a stone
- ☐ a plant
- ☐ a dry leaf
- ☐ a class pet or picture of a pet
- ☐ sand
- ☐ five paper plates

Observations

1 Complete the table.

Name of item	Characteristics	What does it need?	Is it a living thing?

Conclusions

- What helped you decide if an item was a living thing or not?
- How should we take care of living things?

Lesson 2.1

There are many kinds of living things in the world.

What are the characteristics of living things?

When we wake up in the morning, we stretch and

Lesson 2.3

The leaves make food for the plant.

The stem carries water, minerals and food to all parts of the plant.

The flowers make seeds for new plants.

The roots are underground. They take water and minerals from the ground.

What are the parts of a plant?

Plants are living things. They need food, water, air and a place to live. Like all living things, they grow and reproduce to make new plants. Plants can also move to face the Sun, but they cannot move from one place to another, like animals can.

The different parts of a plant help it stay alive. The main parts are its **roots**, **stem** and **leaves**. Some plants also grow **flowers**. Look out of the window—what plants can you see? Can you see their stems, leaves and flowers? Where are the roots?

Practice

- Color yes or No.

a. Plants are living things.	☐ Yes	☐ No
b. Plants make their own food.	☐ Yes	☐ No
c. Plants move from one place to another.	☐ Yes	☐ No
d. Plants make seeds.	☐ Yes	☐ No
- Choose a color for each part of the plant. Color the plant.

Complete the sentences.

food ground seeds

- Roots are in the _____.
- Leaves make _____ for the plant.
- Flowers make _____.

Practice

- Write the two groups of living things.

- Choose the nonliving things.

a. ☐ b. ☐ c. ☐ d. ☐

- Color the true statements.

- Humans are a type of animal.
- Animals are nonliving things.
- Nonliving things do not eat.
- Plants are nonliving things.
- Living things grow and need food.

Evaluate!

Check your progress!
At the end of each unit,
there are plenty of
activities to see how
much you have learned.

Check my progress

1 Choose (✓) the correct category.

	Living thing	Nonliving thing

2 Circle the needs of living things.

food

a job

water

school

a place to live

air

Label the parts of the plant.

Read and match.

a. takes in water and minerals from the soil	leaf
b. carries water, minerals and food	root
c. makes food for the plant	stem

A system to water plants

Glossary

A **absorbent** (Of a material) able to soak up liquid easily
air The mixture of gases that surrounds Earth
animal A living thing that is not a plant
appliance A machine that is powered by electricity
astronomer A person who studies the Sun, Moon, planets and stars
attract Move toward something; the opposite of *repel*

B **battery** Something that gives electricity to an appliance without a plug
bend Move something so that it is not straight
body of water Large or small area of water or ice
bones Hard parts of our body that support us and protect our organs

C **canines** Sharp teeth used for tearing food

D **dairy** Food made from milk
difference A feature that is not the same on two or more things

E **electricity** A form of energy that can be changed into other forms of energy, such as light, heat, sound or movement
energy The ability to be active, e.g., move, make heat and light, etc.

F **fabric** Cloth that is used for making things, such as clothes
fat A food group made up of oily food
flexible Easy to bend
float Stay on the surface of water
flower The part of a plant that is often brightly colored

G **germ** A tiny living thing that can cause disease

Glossary

grains The seeds of plants like wheat and oats
grow Get bigger

H **habitat** The place where an animal or plant lives
healthy Be well and in good health; something that is good for us
heart The organ that pumps blood around the body
human A person

I **ice** Frozen water
incisors Sharp teeth at the front of the mouth that cut food

L **land** The surface of the planet that is not water
leaves The flat, green parts of a plant that grow out of a stem
light The brightness from the Sun or from lamps
living Alive

M **magnet** A metal object that pulls some metals toward it
magnetic (Of a material) attracted to a magnet
magnetism A force that pulls some metals together
mass How heavy something is
material The substance that an object is made of
measure Learn the physical properties of something, e.g., size, mass or height
milk teeth A child's first set of teeth
mineral A substance that occurs naturally in the ground and does not come from an animal or a plant
molars The teeth at the back of the mouth that grind food
muscles Parts of the body, connected to bones, that move the body

N **nonliving** Not alive

Glossary

At the back of the book, there is a Glossary with definitions of all the important scientific words you will need to understand.

This science course helps you develop these global skills, too.
Look out for these symbols next to activities:



Collaborative learning

Work with others to improve your knowledge and develop your interpersonal and social skills.



Critical thinking

Apply what you have learned, analyze information, form new ideas and communicate them to others.



Research

Find out new things about the topic in books or online, select important information and present your findings.



Social and emotional development

Respond to topics as an individual or as a member of society and discuss your thoughts and feelings about them.

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