



GOD'S
DESIGN®

Life

for beginners

Plants
for Beginners

The Human Body
for Beginners

Animals
for Beginners



MASTERBOOKS
— CURRICULUM —

Debbie & Richard Lawrence

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Teacher Introduction

Welcome to God's Design Science for Beginners! *God's Design for Life for Beginners* includes Plants, Animals, and Human Body. This book includes the student textbook material and a teacher supplement with answer keys.

This textbook contains three separate sections each of which has 35 lessons. Each lesson includes text to read, vocabulary words to trace, review questions, and one or more activities, which may be a pen-on-paper activity, a Scripture verse to trace, or a hands-on experiment. Each unit concludes with a vocabulary review.

Answer keys for any puzzles, answers to the review questions, and additional activities and experiments you can do with your student are found in the back of this book. We greatly encourage you to do as many additional activities and experiments as possible, since children learn more and retain more when they are actively engaged with the material.

The supply lists for each unit can be found on pages 8–10. Be sure to consult these and gather the supplies you'll need in advance.

There is no set timeline for completing the book. You can decide how many days each week you want to do science. We suggest that you review previous lessons often to help your student retain the information they've learned.

This course also includes unit vocabulary reviews – these can be used as assessments like a quiz or test if you wish.

A course schedule is included in this book – and as always, you can adjust it per the needs of your student. All activities can also be modified as needed at your discretion.

We hope that you have a wonderful time of discovery as you explore a wide variety of plants, the amazing human body, and different types of animals that God created!

If you are using both the *God's Design for Life For Beginners* book in conjunction with the God's Design for Life course for older students to create a multi-age level study for your students, please keep in mind the following tips:

1

Be flexible with the schedule for your students – adjust as needed.

2

Focus on the ability of each student to master the material and make it fun!

3

Encourage students to help one another as they learn the material.

You can download a schedule that will help you teach this course at the same time as the course for the older student. It is available at: www.nlpg.com/classroom-aids.

Special Project

At the end of this course, the student will have the opportunity to do a special project. This can be:

- ✓ A poster sharing something they learned from the course – ex. an animal and where it lives, a plant and how it functions, or a diagram of one system of the human body
- ✓ A short report from any of the three sections – plants, human body, or animals Can be focused on a specific area of interest (ex. digestive system, arthropods, or unusual plants)
- ✓ A short oral presentation for your teacher – explain what you enjoyed most about the course and why

Be as creative as you want to be!

Plants for Beginners – Supply List

Lesson	✓	Supplies
4		Yellow gelatin, zipper bag, red and green grapes
8 & 9		Bean seeds
10		Several types of fruits and vegetables with seeds
11		Unpeeled carrots, magnifying glass
13		Celery, food coloring
14		Your favorite salad ingredients
15		String
16		2 identical plants, box to cover one of the plants
18		Leaves for making leaf rubbings.
21		Construction paper, glue
23		One or more fresh flowers with obvious reproductive parts (lily, alstroemeria, etc.)
24		A selection of fresh fruit
25		Pinecone
28		House plant
29		Cactus
30		Potato, jar, potting soil
31		Sand (optional)
34		Mushroom
35		Any dried parts of plants you have available such as leaves, seeds, seed pods, flowers, twigs, etc.

Human Body for Beginners – Supply List

Lesson	✓	Supplies
3		Lego® bricks or building blocks
5		Sticky notes
10		Tempura paints
12		Modeling clay
17		Two paper cups, string
18		Sugar, items with distinctive scents such as cinnamon and cocoa
21		Tooth brush, tooth paste, dental floss
27		Red and blue construction paper
28		Balloons
32		Apple, plastic wrap, food coloring
34		Newsprint (paper large enough to trace around your child)

Animals for Beginners – Supply List

Lesson	✓	Supplies
6	<input type="checkbox"/>	Toothbrush
9	<input type="checkbox"/>	Bird feather
11	<input type="checkbox"/>	Goldfish crackers
13	<input type="checkbox"/>	Modeling clay
16	<input type="checkbox"/>	Sequins
22	<input type="checkbox"/>	Foam balls, toothpicks, chenille stems (pipe cleaners)
24	<input type="checkbox"/>	Round crackers, peanut butter, pretzel sticks, raisins
25	<input type="checkbox"/>	Modeling clay
27	<input type="checkbox"/>	Seashells
28	<input type="checkbox"/>	Egg carton, chenille stems (pipe cleaners)
29	<input type="checkbox"/>	Flour, salt, mini-chocolate chips
30	<input type="checkbox"/>	Sponges, paint
31	<input type="checkbox"/>	Instant chocolate pudding, milk, chocolate cookies, gummy worms
32	<input type="checkbox"/>	Magnifying glass

Date	Day	Assignment	Due Date	✓	Grade
First Semester-First Quarter					
Week 1	Day 1	Plants for Beginners Unit 1: Introduction to Life Science Do Lesson 1: Is It Alive? • Pages 17–20 • God's Design: Life Beginners			
	Day 2	Do Lesson 2: Plant or Animal? • Pages 21–23			
	Day 3	Do Lesson 3: Classifying Plants and Animals • Pages 24–28			
	Day 4				
	Day 5				
Week 2	Day 6	Do Lesson 4: Plant and Animal Cells • Pages 29–31			
	Day 7	Do the Introduction to Life Science Unit Vocabulary Review (Lessons 1-4) Page 32			
	Day 8	Plants for Beginners Unit 2: Flowering Plants and Seeds Do Lesson 5: Parts of Plants • Pages 33–35			
	Day 9				
	Day 10				
Week 3	Day 11	Do Lesson 6: Grasses • Pages 36–38			
	Day 12	Do Lesson 7: Trees • Pages 39–41			
	Day 13	Do Lesson 8: Seeds • Pages 42–43			
	Day 14				
	Day 15				
Week 4	Day 16	Do Lesson 9: Inside a Seed • Pages 44–45			
	Day 17	Do Lesson 10: Seeds—Where Are They? • Pages 46–47			
	Day 18	Complete Flowering Plants and Seeds Unit Vocabulary Review (Lessons 5-10) Page 48			
	Day 19				
	Day 20				
Week 5	Day 21	Plants for Beginners Unit 3: Roots and Stems Do Lesson 11: Roots • Pages 49–53			
	Day 22	Do Lesson 12: Special Roots • Pages 54–57			
	Day 23	Do Lesson 13: Stems • Pages 58–59			
	Day 24	Do Lesson 14: Stem Structure • Pages 60–61			
	Day 25				
Week 6	Day 26	Do Lesson 15: Stem Growth • Pages 62–63			
	Day 27	Complete Roots and Stems Unit Vocabulary Review (Lessons 11-15) • Page 64			
	Day 28	Plants for Beginners Unit 4: Leaves Do Lesson 16: Photosynthesis • Pages 65–68			
	Day 29	Do Lesson 17: Leaf Arrangement • Pages 69–70			
	Day 30				

Schedule

Date	Day	Assignment	Due Date	✓	Grade
Week 7	Day 31	Do Lesson 18: Leaves Have Veins • Pages 71–73			
	Day 32	Do Lesson 19: Changing Colors • Pages 74–76			
	Day 33	Do Lesson 20: Leaf Identification • Pages 77–79			
	Day 34	Complete Leaves Unit Vocabulary Review (Lessons 16–20) • Page 80			
	Day 35				
Week 8	Day 36	Plants for Beginners Unit 5: Flowers and Fruits Do Lesson 21: Flowers • Pages 81–84			
	Day 37	Do Lesson 22: Pollination • Pages 85–87			
	Day 38	Do Lesson 23: Looking at a Real Flower • Pages 88–89			
	Day 39				
	Day 40				
Week 9	Day 41	Do Lesson 24: Fruits • Pages 90–91			
	Day 42	Do Lesson 25: Plant Life Cycle • Pages 92–95			
	Day 43	Complete Flowers and Fruit Unit Vocabulary Review (Lessons 21–25) • Page 96			
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	Day 45				
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Week 1	Day 46	Plants for Beginners Unit 6: Unusual Plants Do Lesson 26: Meat-eating Plants • Pages 97–100			
	Day 47	Do Lesson 27: Passenger and Parasite Plants • Pages 101–102			
	Day 48	Do Lesson 28: Plants Have Special Abilities • Pages 103–105			
	Day 49	Do Lesson 29: Surviving in Harsh Climates • Pages 106–107			
	Day 50				
Week 2	Day 51	Do Lesson 30: New Plants without Seeds • Pages 108–109			
	Day 52	Do Lesson 31: Ferns • Pages 110–111			
	Day 53	Do Lesson 32: Mosses • Pages 112–113			
	Day 54	Do Lesson 33: Algae • Pages 114–115			
	Day 55				
Week 3	Day 56	Do Lesson 34: Mushrooms • Pages 116–117			
	Day 57	Do Lesson 35: Appreciating Plants • Pages 118–119			
	Day 58	Complete Unusual Plants Unit Vocabulary Review (Lessons 26–35) Page 120			
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	Day 60				
Week 4	Day 61	Human Body for Beginners Unit 1: Body Overview Do Lesson 1: The Creation of Life • Pages 121–123			
	Day 62	Do Lesson 2: The Human Body Pages 124–125			
	Day 63	Do Lesson 3: Cells • Pages 126–127			
	Day 64				
	Day 65				

Date	Day	Assignment	Due Date	✓	Grade
Week 5	Day 66	Complete Body Overview Unit Vocabulary Review (Lessons 1-3) Page 128			
	Day 67	Human Body for Beginners Body Unit 2: Bones & Muscles Do Lesson 4: Your Skeleton • Pages 129–132			
	Day 68	Do Lesson 5: Name Those Bones • Pages 133–134			
	Day 69	Do Lesson 6: Types of Bones • Page 135			
	Day 70				
Week 6	Day 71	Do Lesson 7: Joints • Pages 136–137			
	Day 72	Do Lesson 8: Muscles • Pages 138–139			
	Day 73	Do Lesson 9: Using Your Muscles • Pages 140–141			
	Day 74	Do Lesson 10: Hands and Feet • Pages 142–143			
	Day 75				
Week 7	Day 76	Complete Bones and Muscles Unit Vocabulary Review (Lessons 4-10) Page 144			
	Day 77	Human Body for Beginners Body Unit 3: Nerves and Senses Do Lesson 11: The Nervous System • Pages 145–147			
	Day 78	Do Lesson 12: The Brain • Pages 148–149			
	Day 79	Do Lesson 13: Learning and Thinking • Pages 150–152			
	Day 80				
Week 8	Day 81	Do Lesson 14: Reflexes and Nerves • Pages 153–154			
	Day 82	Do Lesson 15: The Five Senses • Pages 155–156			
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	Day 87	Do Lesson 18: Taste and Smell • Pages 161–163			
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Schedule

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	Day 98	Body Unit 5: Heart and Lungs • Do Lesson 24: The Circulatory System Pages 177–179			
	Day 99	Do Lesson 25: The Heart • Pages 180–181			
	Day 100				
Week 3	Day 101	Do Lesson 26: Blood • Pages 182–183			
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	Day 103	Do Lesson 28: The Lungs • Pages 186–187			
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	Day 105				
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	Day 108	Do Lesson 30: What Is Inside My Skin? • Pages 192–193			
	Day 109	Lesson 31: Skin Color • Pages 194–196			
	Day 110				
Week 5	Day 111	Do Lesson 32: Staying Well • Pages 197–198			
	Day 112	Do Lesson 33: DNA • Pages 199–200			
	Day 113	Do Lesson 34: Final Project • Page 201			
	Day 114				
	Day 115				
Week 6	Day 116	Do Lesson 35: God Made Me Special • Page 202–203			
	Day 117	Complete Skin and Immunity Unit Vocabulary Review (Lessons 29-33) Page 204			
	Day 118	Animals for Beginners Unit 1: Mammals Do Lesson 1: World of Animals • Pages 205–207			
	Day 119				
	Day 120				
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	Day 122	Do Lesson 3: What Is a Mammal? • Pages 210–211			
	Day 123	Do Lesson 4: Large and Small Mammals Pages • 212–215			
	Day 124	Do Lesson 5: Monkeys & Apes • Pages 216–217			
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Week 8	Day 126	Do Lesson 6: Water Mammals • Pages 218–220			
	Day 127	Do Lesson 7: Marsupials • Pages 221–223			
	Day 128	Complete Mammals Unit Vocabulary Review (Lessons 1-7) Page 224 • (TG)			
	Day 129				
	Day 130				

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	Day 132	Do Lesson 9: Flight • Pages 228–229			
	Day 133	Do Lesson 10: Birds That Don't Fly Pages 230–231			
	Day 134				
	Day 135				
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	Day 137	Do Lesson 12: Fish Were Designed to Swim Pages 234–235			
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Week 2	Day 141	Animals for Beginners Unit 3: Amphibians and Reptiles Do Lesson 14: Frogs and Toads • Pages 241–243			
	Day 142	Do Lesson 15: A Frog's Life Cycle • Pages 244–245			
	Day 143	Do Lesson 16: Reptiles • Pages 246–247			
	Day 144				
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Week 3	Day 146	Do Lesson 17: Snakes • Pages 248–250			
	Day 147	Do Lesson 18: Lizards • Pages 251–253			
	Day 148	Do Lesson 19: Turtles and Crocodiles • Pages 254–255			
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Week 4	Day 151	Complete Amphibians and Reptiles Unit Vocabulary Review (Lessons 14-19) Page 256			
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	Day 153	Do Lesson 21: Arthropods • Pages 260–261			
	Day 154	Do Lesson 22: Insects • Pages 262–263			
	Day 155				
Week 5	Day 156	Do Lesson 23: Insect Life Cycle • Pages 264–267			
	Day 157	Do Lesson 24: Spiders • Pages 266–267			
	Day 158	Do Lesson 25: Crabs and Crayfish • Pages 268–269			
	Day 159	Do Lesson 26: Animals with Many Legs • Pages 270–271			
	Day 160				
Week 6	Day 161	Complete Arthropods Unit Vocabulary Review (Lessons 20-26) Page 272			
	Day 162	Animals for Beginners Unit 5: Other Invertebrates Do Lesson 27: Mollusks • Pages 273–275			
	Day 163	Do Lesson 28: Jellyfish and Coral • Pages 276–277			
	Day 164	Do Lesson 29: Starfish • Pages 278–279			
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Schedule

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	Day 167	Do Lesson 31: Worms • Pages 282–283			
	Day 168	Complete Other Invertebrates Unit Vocabulary Review (Lessons 27-31) Pages 284			
	Day 169	Animals for Beginners Unit 6: Simple Organisms Do Lesson 32: Very Tiny Animals • Pages 285–287			
	Day 170				
Week 8	Day 171	Do Lesson 33: Bacteria • Pages 288–289			
	Day 172	Do Lesson 34: Animal Review • Page 290			
	Day 173	Do Lesson 35: Animals in the Bible • Page 291			
	Day 174				
	Day 175				
Week 9	Day 176	Complete Simple Organisms Unit Vocabulary Review (Lessons 32-33) Page 292			
	Day 177	Start your Special Project.			
	Day 178	Complete your Special Project.			
	Day 179				
	Day 180				
		Final Grade			

Introduction to Life Science

**UNIT
1**



**GOD'S
DESIGN®**

Lessons 1-4

***Plants
for Beginners***

Lesson 1

Is It Alive?

If you had a gummy worm and an earthworm in front of you, how could you tell which one is alive?

A gummy worm cannot eat. An earthworm eats dead plants in the soil.

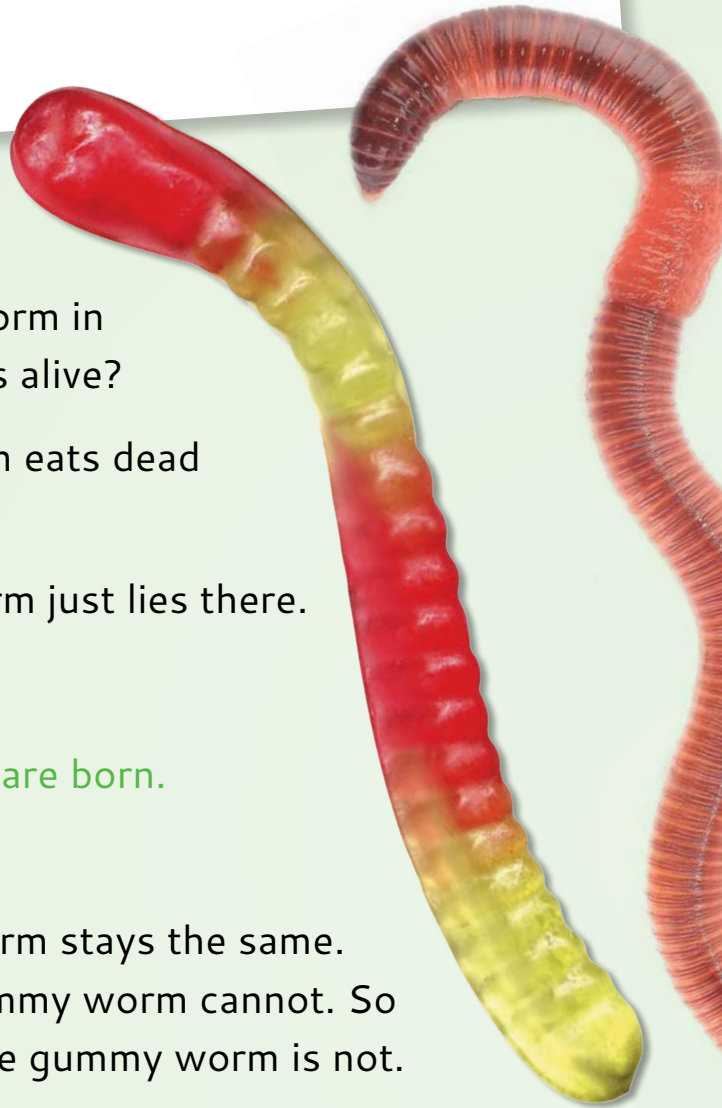
The earthworm wriggles. The gummy worm just lies there.

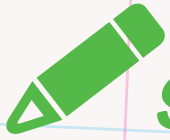
Living things are born.
They grow and eventually die.

The earthworm can grow. The gummy worm stays the same. The earthworm can have babies. But the gummy worm cannot. So you know that the earthworm is alive and the gummy worm is not.

Animals are alive. Plants are alive, too. And of course people are alive. They can all do the things that the earthworm can do.

- ? How can you tell if something is a living thing?
- ? Is a cat alive? Is a couch alive?
- ? Is God alive?





Scripture Trace

May the glory of the LORD endure
forever; may the LORD rejoice in his
works. Psalm 104:31



Outdoor Scavenger Hunt

Go outside and collect lots of things, some that are alive and some that are not. Then fill in the chart below.


Living

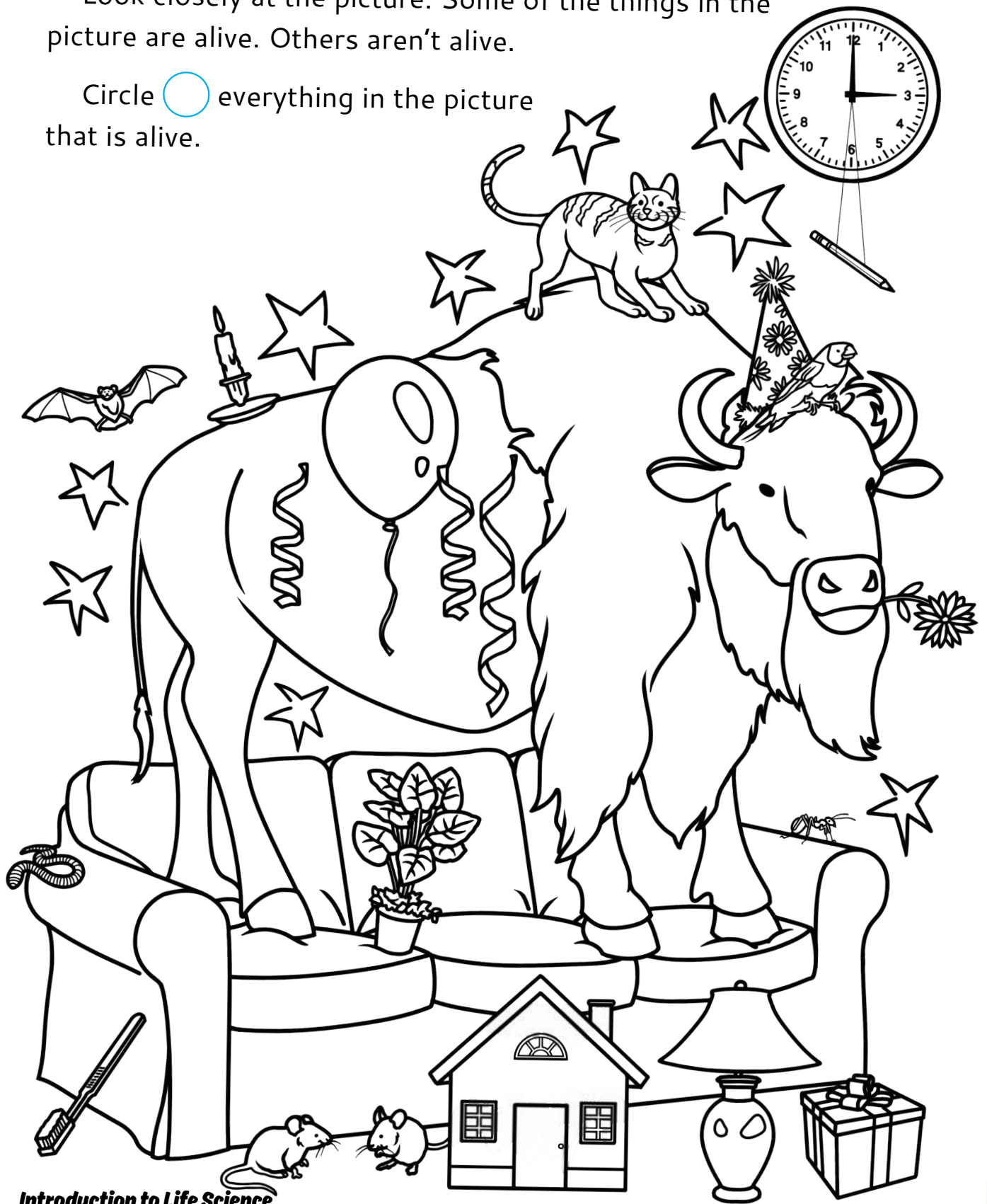
Nonliving



Is It Alive Scavenger Hunt

Look closely at the picture. Some of the things in the picture are alive. Others aren't alive.

Circle  everything in the picture that is alive.



Plant or Animal

Lesson 2

Plants and animals are both alive, but plants and animals are different.

Plants

have green leaves. They are planted in the ground. Plants must have sunlight to grow. Plants use sunlight to make their food.

Animals

do not have to be planted in the ground. Animals can live in places without sunlight.

Bats live in caves. There is no sunlight in a cave. But animals cannot make their own food. Animals have to eat plants or other food.

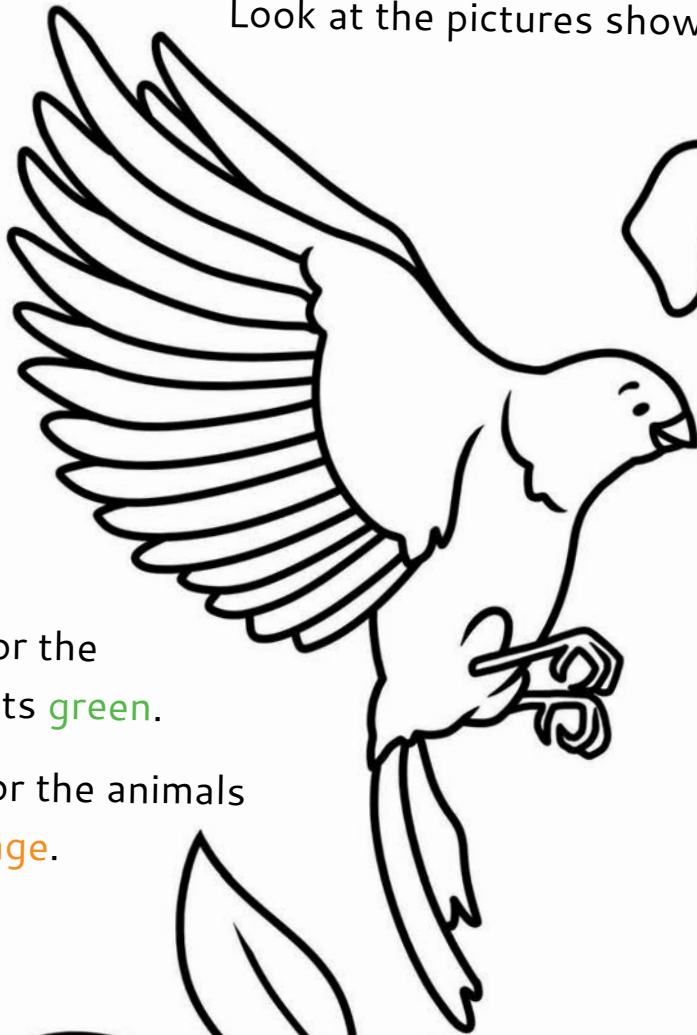
Animals can move around. Plants can turn their leaves to face the sun. But the whole plant cannot get up and walk around.





Plant or Animal Worksheet

Look at the pictures shown here.



Color the
plants **green**.

Color the animals
orange.



name

- ? What do plants need in order to make their food?
- ? Can plants move like people?
- ? Name one important difference between plants and animals.



On What Day Were They Created?

Draw a line from the day of creation to the correct thing made on that day. See Genesis 1 in the Bible for help.



Day 3

Day 5

Day 6



Lesson 3

Classifying Plants and Animals

Classification

is putting things into groups based on features they have in common. Adam would have used a classification method by grouping animal kinds together when he named them.

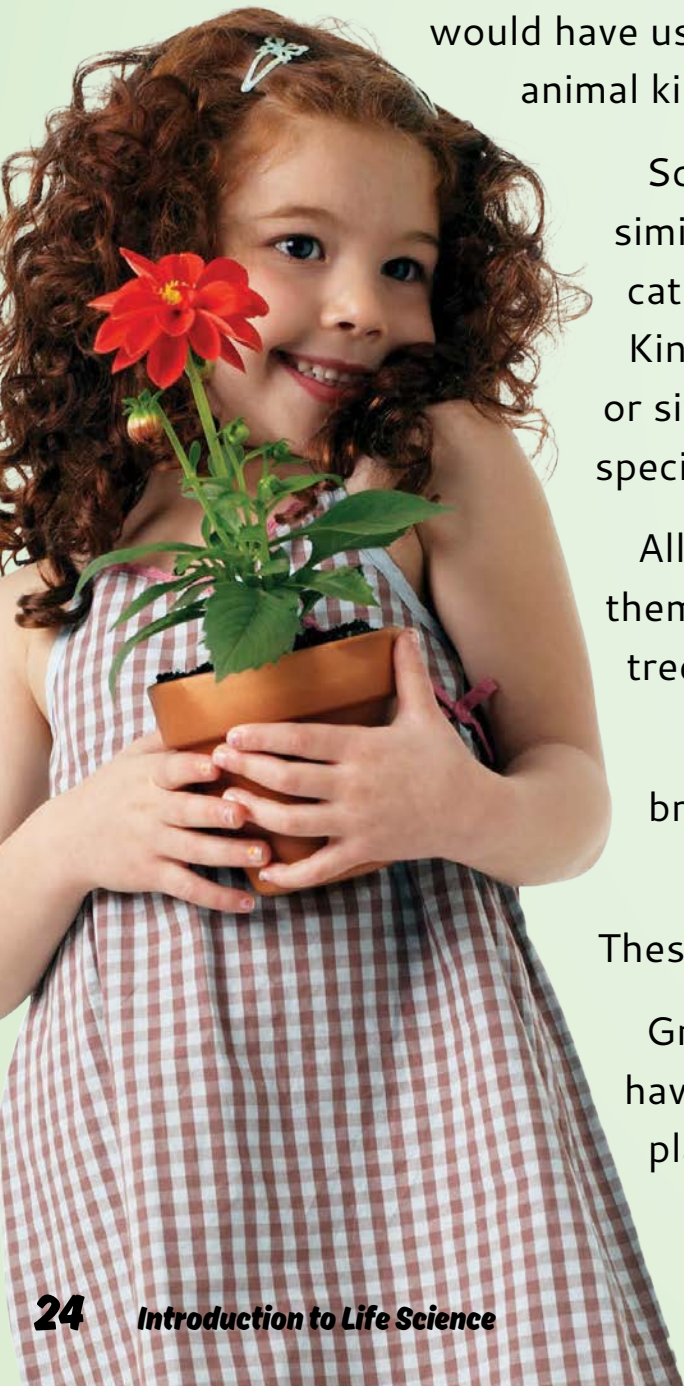
Scientists classify living things based on similar features. They group things into categories. The biggest category is the Kingdom. All living things fit into just five or six kingdoms. The smallest category is species.

All plants are not alike so scientists put them into different groups. One group is trees.

Most trees have tall trunks. Trees have branches. And trees have lots of leaves.

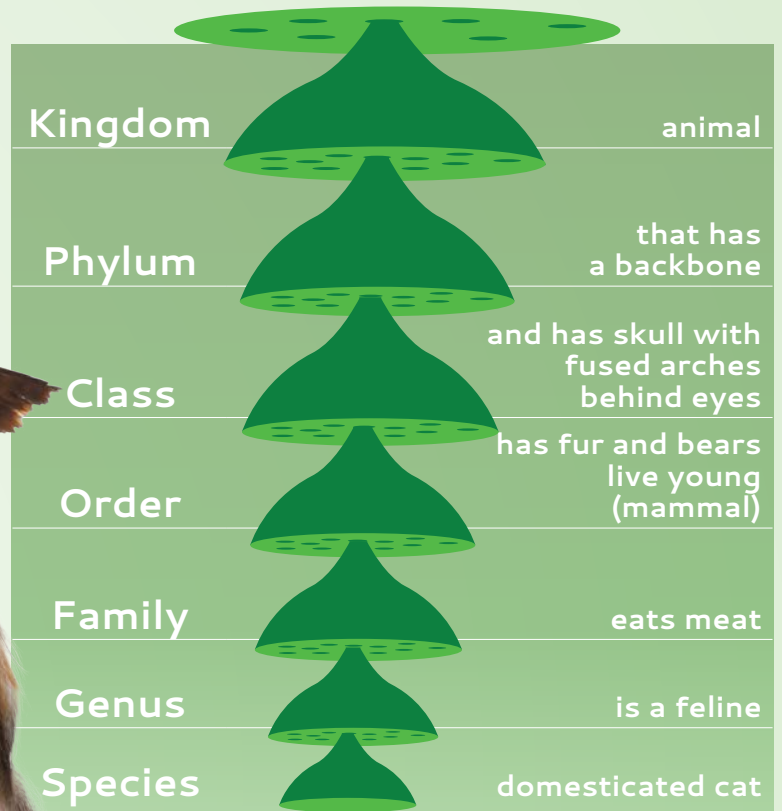
Other plants have beautiful flowers. These plants are much smaller than trees.

Grass is a plant, too. But grass does not have big colorful flowers. These different plants are in different groups.



name

How Scientists Classify Living Things



All animals are not alike.

Some animals have fur. Dogs, cats, and rabbits all have fur.



Birds have feathers. Birds fly through the air. An eagle is a bird. So is a blue jay.


Fish are animals that live in the water. Fish have scales instead of fur.



What Am I?

Look at the plants and animals shown here.

Circle  the trees. Draw a triangle  around the flowers.

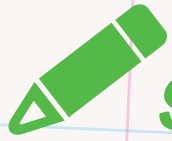
Draw a square  around the animals with fur (mammals).

Put an **X** on the animals with feathers (birds).



name





Scripture Trace

Now out of the ground the LORD God had formed every beast of the field and every bird of the heavens and brought them to the man to see what he would call them.

Genesis 2:19

? How are dogs and cats alike?

? How are dogs and birds different?

? Who was the first human to classify, or name, the animals?



Classify Your Closet!

Try your hand at being a scientist, and classify your closet. Grouping your clothes together based on color may make it easier for you to put together a matching outfit or find your favorite shirt for that special day. You can group clothes based on color, short or long sleeves, pants or shorts, etc. When you decide how to organize your clothes, you get to be the scientist and make your own groups!

Answer Key



GOD'S
DESIGN®

Plants
for Beginners

Unit 1—Introduction to Life Science

Lesson 1—Is It Alive?



IS IT ALIVE? SCAVENGER HUNT



ANSWER KEY

How can you tell if something is a living thing? *Living things are born, grow, and eventually die.*

Is a cat alive? Is a couch alive? *A cat is alive. A couch is not alive.*

Is God alive? *God is alive, even though he*

does not fit this definition. God is eternal and immutable, so he was not born, he does not grow, and he will not die. But he is alive!

Lesson 2—Plant or Animal



ON WHAT DAY WERE THEY CREATED?

Day 3

Day 5

Day 6



ANSWER KEY

What do plants need in order to make their food? *Sunlight. They also need water and carbon dioxide for photosynthesis to occur.*

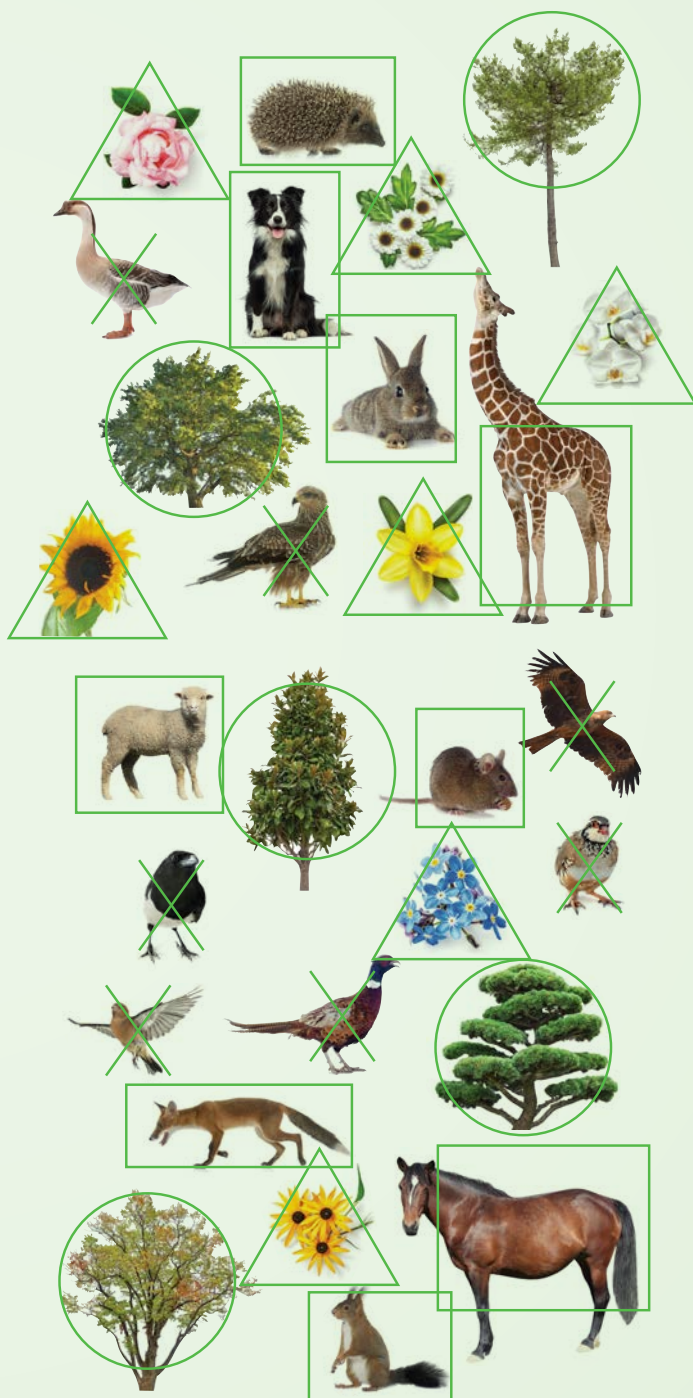
Can plants move like people? *No, a plant cannot walk around.*

Name one important difference between plants and animals. *Plants make their own food, animals eat other things for food. Plants cannot move around as animals can.*

Lesson 3—Classifying Plants and Animals



WHAT AM I?



ANSWER KEY

How are dogs and cats alike? *Dogs and cats have fur, four legs, etc.*

How are dogs and birds different? *Birds have beaks and feathers, can fly, etc.*

Who was the first human to classify, or name, the animals? *Adam.*

Lesson 4—Plant and Animal Cells



MAKE A CELL MODEL

You can make models of animal and plant cells by doing the following:

Mix yellow gelatin according to the box directions and place in the refrigerator for about 1 hour or until it is slightly thickened. Fill a zipper bag about $\frac{3}{4}$ full with the thickened gelatin. The bag represents the cell membrane and the gelatin is the cytoplasm. Insert a red grape for the nucleus. You now have a basic animal cell. Squish the gelatin around to see how the cell moves. To make a plant cell, add several green grapes inside the cell. These are the parts that help the plant turn sunlight into food.

ANSWER KEY

What shape are most animal cells? *Round.*