

## Chapter 1

# SCIENCE FROM A BIBLICAL WORLDVIEW

### STUDY QUESTIONS

Enter the name of the Christian-influenced scientist (from the list of names below) beside the scientific field he is known to have developed.

Louis Pasteur (1822-1895)  
Isaac Newton (1642-1727)  
Robert Boyle (1627-1691)  
Charles Babbage (1792-1871)  
Isaac Newton (1642-1727)  
James Clerk Maxwell (1831-1879)  
Michael Faraday (1791-1867)  
Ambrose Fleming (1849-1945)  
George Stokes (1819-1903)  
Johannes Kepler (1571-1630)  
Lord Kelvin (1824-1907)  
Carolus Linnaeus (1707-1778)

1. Electronics \_\_\_\_\_
2. Thermodynamics \_\_\_\_\_
3. Dynamics \_\_\_\_\_
4. Chemistry \_\_\_\_\_
5. Fluid Mechanics \_\_\_\_\_
6. Computer Science \_\_\_\_\_
7. Bacteriology \_\_\_\_\_
8. Electromagnetics \_\_\_\_\_

**9.** What or who is the cause of everything in the Universe?

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**10.** What do unbelieving scientists think brought about the complexity and variety of creatures in the earth?

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**11.** What do you learn about God when you see something really big like a mountain, a lion, or a galaxy in the heavens?

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**12.** What do you learn about God when you see something really complicated like a living cell or a spider spinning a web?

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**13.** What do you learn about God when you see thousands of reindeer feeding on grasses in northern Canada, or when you see a mama bird feeding her young in a nest?

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**14.** Man learned how to fly an airplane in the year 1903, when Wilbur and Orville Wright sustained a flight in Kitty Hawk. Who knew all about flight even before man learned about it?

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**15.** If a grandfather hid treasures in the backyard, why would his grandchildren run out to find them? Give three or four reasons.

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**16.** What two things did God promise Noah in Genesis 8:20-22?

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**17.** Why don't unbelieving scientists sing hymns in their science classes?

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**18.** Give three or four purposes for our study of science that are different from unbelieving scientists.

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**SCRIPTURE**

Fill in the key parts of the following scripture passages:

1. "The heavens declare the \_\_\_\_\_; and the firmament shows \_\_\_\_\_  
\_\_\_\_\_. Day unto day utters speech, and night unto night reveals knowledge. There is no  
speech nor language \_\_\_\_\_." (Psalm 19)
  
2. "So God created man in His own image; in the image of God He created him; male and female  
He created them. Then God blessed them, and God said to them, 'Be \_\_\_\_\_  
; fill the earth and subdue it; have dominion over \_\_\_\_\_ over \_\_\_\_\_  
\_\_\_\_\_, and over every living thing that \_\_\_\_\_.'" (Genesis 1)
  
3. "Then the LORD said in His heart, 'I will never again curse the ground for man's sake, although  
the imagination of man's heart is evil from his youth; nor will I again destroy every living thing  
as I have done. While the earth remains, \_\_\_\_\_, cold and heat,  
winter and summer, and \_\_\_\_\_.'" (Genesis 8)
  
4. "It is the glory of God to \_\_\_\_\_, but the honor of kings

to \_\_\_\_\_." (Proverbs 25)

## SPIRITUAL LIFE APPLICATION

1. List three amazing animals or natural processes or events that you have witnessed which would cause you to praise God.

I praise God for \_\_\_\_\_.

I praise God for \_\_\_\_\_.

And, I praise God for \_\_\_\_\_.

2. List some ways in which science has helped your mother in the kitchen, in very practical ways. What is it specifically that she is ruling over in her work?

a. First way science helps mom: \_\_\_\_\_

What is she ruling over? \_\_\_\_\_

b. Second way science helps mom: \_\_\_\_\_

What is she ruling over? \_\_\_\_\_

## OBSERVATION OR DISSECTION

Observation is the basic method of science. This is what scientists do. But, even more importantly, this is what Christians do. We consider. We study the works of God, so that we can give Him the praise and the glory for what He has done. This applies to His work of creation, His works of providence in history, and His work of redemption by Jesus Christ who died on the cross for our sins and rose again the third day.

"I will meditate on the glorious splendor of Your majesty, and on Your wondrous works. Men shall speak of the might of Your awesome acts, and I will declare Your greatness." (Ps. 145:5-6)

When we study what God has done in creation, we can feel, taste, listen, look, and smell. Use your senses to investigate God's world. Choose one of the following exercises as you investigate God's world for yourself.

1. Check out a dog or cat's vital signs.

a. Use a stethoscope or your fingers, and attempt to feel or hear the heartbeat of a dog or cat.

Hold your hand over the cat or dog's left side, just behind its front leg.

How many beats in 10 seconds? Multiply that by six to get the number of beats per minute.

	<b>Beats in 10 seconds</b>	<b>Beats in a Minute</b>
Animal		
You		

b. Check out a dog or cat's respiratory rate. How many breaths does he take in a minute? Just watch its chest go up and down, in and out. Compare it to your own.

Animal respiratory rate: \_\_\_\_\_

Your respiratory rate: \_\_\_\_\_

**2. Observe the behavior of ants.**

a. How fast do they run? Time an ant as it runs for about a foot, and determine how many feet per second it runs.

\_\_\_\_\_ feet/second

b. How much distance does the ant make in 10 minutes?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

c. How much weight can an ant carry, from your observation?

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\_\_\_\_\_

d. Put 2-4 different kinds of food in front of it. . . meat, vegetable, bread, sugar. Which does the ant prefer?

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3. Observe a bug or insect of any kind.

Count its legs \_\_\_\_\_

Count its antennae \_\_\_\_\_

Count its body segments \_\_\_\_\_

Where are its eyes located? \_\_\_\_\_

4. Listen to bird calls/songs. Write down the various types of calls you hear. What are the conditions under which the bird makes these calls? Is it danger? Is it communicating with another bird? Is it identifying food sources?

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## Chapter 2

# GOD'S AMAZING CREATIVE POWER

### STUDY QUESTIONS

What did God create on each of the days of creation?

1. Day 1
2. Day 2 \_\_\_\_\_
3. Day 3 \_\_\_\_\_
4. Day 4 \_\_\_\_\_
5. Day 5 \_\_\_\_\_
6. Day 6 \_\_\_\_\_

7. If worldly scientists do not believe that a personal God created animals, how did it all come about, from their perspective?

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8. From what raw materials do humans make the following products?

Tables \_\_\_\_\_

Roads and highways \_\_\_\_\_

Tires \_\_\_\_\_

Car hoods \_\_\_\_\_

9. From what did God make the world and all of the animals?

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**10.** From what did Jesus make the wine out of, at the Cana wedding?

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**11.** What are some things that Jesus accomplishes with His voice?

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**12.** What is the one thing God did not create out of nothing (ex nihilo), when He made the world?  
What did He use?

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**13.** Give several examples of things God created with the appearance of age.

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14. Which came first, the chicken or the egg?

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15. How many fish and loaves did Jesus multiply to feed the 5,000 in John 6:1-14? Why was this an act of creation?

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## SCRIPTURE

Fill in the key parts of the following scripture passages:

1. "Let them praise the name of the LORD: for \_\_\_\_\_,  
and they were created." (Psalm 148)
2. "By \_\_\_\_\_ the heavens were made, and all the  
host of them by \_\_\_\_\_." (Psalm 33)
3. "Then God said, 'Let the waters abound with \_\_\_\_\_, and let  
birds fly above the earth across the face of the firmament of the heavens.' So God created  
great sea creatures and every living thing that moves, \_\_\_\_\_,  
according to their kind, and every winged bird according to its kind. And God saw that it was  
good.'" (Genesis 1)

**SPIRITUAL LIFE APPLICATION**

1. What are your questions about yourself and the world around you that are answered in the Word of God? Give several examples.

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2. Look around you and identify several things in your home or outdoors which man made out of materials that God made. List them here. Take a moment and praise God for providing the materials to make these things.

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3. Read Exodus 20:9-11. Explain why the Bible does not support evolution — that the animals appeared over a process of millions of years.

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4. Read Hebrews 11:3. According to this verse, what is required of you as you think about the way the earth came about at the beginning?

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**OBSERVATION OR DISSECTION**

Choose one of the following exercises as you investigate God's world for yourself.

1. Go outside and observe 25 plants, animals, and inanimate objects around you that God has made. Do your best to identify each object. Then, list 10 functions or processes that God has made (wind, an animal eating, an animal flying, etc.) Acknowledge God as creator of all these things and praise Him for it.

Objects	Process/Function



	<b>Age</b>	<b>Size</b>	<b>Full Grown?</b>
You			
Tree Log			
Flower or Plant			
Animal			
Insect			





## Chapter 3

# GOD MADE ANIMALS

### STUDY QUESTIONS

1. What are the differences between a mechanical robot dog and a real dog?

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2. What is it that two different "kinds" of animals God created cannot do?

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3. Give examples for each of the following five categories of God's living creation:

- a. Category Monera \_\_\_\_\_
- b. Category Protista \_\_\_\_\_
- c. Category Fungi \_\_\_\_\_
- d. Category Plantae \_\_\_\_\_
- e. Category Animalia \_\_\_\_\_
- f. Category Man \_\_\_\_\_

**4.** How is man different from the animals?

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**5.** What are some of the similarities between man and the animals?

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**6.** Fill in the word that fits the description from the list of words contained below:

Genetic Code (DNA)

Cytoplasm

Cell

Reproductive Systems

Species

a. \_\_\_\_\_ A certain variety of animal that is described by its features, but may be capable of reproducing with another species.

b. \_\_\_\_\_ The gooey stuff inside of the cell which makes it alive.

c. \_\_\_\_\_ The smallest living thing named after the place where Christian monks gather to pray.

d. \_\_\_\_\_ A collection of instructions that comes from the dad dog and the mom dog which determines what the baby dog is going to look like.

e. \_\_\_\_\_ The function of a living organism to produce offspring or babies.

7. Which of the following animals can interbreed, and what is the resulting animal?

- a. Donkey and Zebra \_\_\_\_\_
- b. Coyote and Dog \_\_\_\_\_
- c. Lion and Giraffe \_\_\_\_\_
- d. Cocker Spaniel and Poodle \_\_\_\_\_
- e. Wolf and Dog \_\_\_\_\_
- f. Horse and Donkey \_\_\_\_\_
- g. Raccoon and Porcupine \_\_\_\_\_

8. Which animals ate meat before the fall of Adam into sin?

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9. Which animals began eating meat after the fall?

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10. When did humans begin to eat meat?

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**SCRIPTURE**

Fill in the key parts of the following scripture passages:

1. "Then God said, 'Let Us make man in \_\_\_\_\_, according to \_\_\_\_\_; let them have dominion over the fish of the sea, over the birds of the air, and over the cattle, over all the earth and over every creeping thing that creeps on the earth.' So God created man \_\_\_\_\_ He created him; male and female He created them." (Genesis 1)
  
2. "What is \_\_\_\_\_ that You are mindful of him, And the \_\_\_\_\_ that You visit him? For You have made him a little lower than the angels, And You have crowned him with glory and honor. You have \_\_\_\_\_; You have put \_\_\_\_\_." (Psalm 8)
  
3. "Out of the ground the LORD God formed every beast of the field and every bird of the air, and brought them to Adam to see what \_\_\_\_\_. And whatever Adam called each living creature, that was its \_\_\_\_\_. So Adam gave \_\_\_\_\_, to the birds of the air, and to every beast of the field. But for Adam there was not found a \_\_\_\_\_ to him." (Genesis 2)
  
4. "For we know that the whole creation \_\_\_\_\_ together until now. Not only that, but we also who have the firstfruits of the Spirit, even we ourselves groan within ourselves, eagerly waiting for the adoption, \_\_\_\_\_." (Romans 8)

**SPIRITUAL LIFE APPLICATION**

1. Study Psalm 8. What is the hierarchy (order) of dignity and honor in God's creation?

God

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What are the parts of creation we (humans) are called to rule over?

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2. Compare yourself to your mother and father — your personality, your looks, your size and shape. Which characteristics did you get from your father? Which did you get from your mother? (If you only have known one parent, just include that information below.) Take a moment and thank God for these characteristics that He gave you from your parents.

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**OBSERVATION OR DISSECTION**

**Choose one of the following exercises as you investigate God’s world for yourself.**

1. Observe a cockapoo, a puggle, and a labradoodle. Which characteristics do these dogs receive from each parent?

Cocker Spaniel characteristics: \_\_\_\_\_

Poodle characteristic: \_\_\_\_\_

Pug characteristics: \_\_\_\_\_

Beagle characteristics: \_\_\_\_\_

Poodle characteristics: \_\_\_\_\_

Labrador characteristics: \_\_\_\_\_

2. Observe and record the eye color of ten children, from at least five different families. Fill in the color of their parent’s eyes as well.

The brown eye gene is dominant over the blue eye gene. That means the brown eye gene is more influential than the blue eye gene. The blue eyes gene is recessive, which means it has a weaker influence on whether the children will have the same gene.

So, if a child has a parent with brown eyes and a parent with blue eyes, the child will have brown eyes most of the time. If both parents have blue eyes, the children will have blue eyes most of the time.

	<b>Name</b>	<b>Eye Color</b>	<b>Parent 1 Eye Color</b>	<b>Parent 2 Eye Color</b>
	Child #1			
	Child #2			
	Child #3			
	Child #4			
	Child #5			

Child #6				
Child #7				
Child #8				
Child #9				
Child #10				

What kind of pattern do you see in this?

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## Chapter 4

# GOD MADE ANIMALS WITHOUT BACKBONES

### STUDY QUESTIONS

1. Fill in the word that best fits each phrase using the list of words contained below:

Coral  
Metamorphosis  
Insect  
Bivalve mollusks  
Arachnid  
Arthropod  
Cephalopod  
Crustacean  
Invertebrate  
Gastropods

- a. \_\_\_\_\_ An invertebrate with the head and foot combined in one organ
- b. \_\_\_\_\_ An animal that is sensitive to ocean water temperatures
- c. \_\_\_\_\_ Animals without backbones
- d. \_\_\_\_\_ Invertebrates with one foot (containing a stomach)
- e. \_\_\_\_\_ Invertebrates with a segmented body and jointed appendages
- f. \_\_\_\_\_ Clams, oysters, scallops

g. \_\_\_\_\_ An animal that changes its form in its own lifespan

h. \_\_\_\_\_ An 8-legged arthropod

i. \_\_\_\_\_ A 10-legged arthropod

j. \_\_\_\_\_ A 6-legged arthropod

**2.** What is the most dangerous spider in the world?

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**3.** Why are ticks so dangerous?

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**4.** What is a chigger? Why is it so harmful?

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**5.** Give an example of each of the following animals:

a. Insect

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b. Bivalve mollusk

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c. Univalve mollusk

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d. Gastropod

e. Cephalopod

f. Arachnid

g. Animals that undergo metamorphosis

h. Crustacean

6. What wonderful defense mechanism has the Lord provided the following creatures?

Octopus \_\_\_\_\_

Mollusks \_\_\_\_\_

Jellyfish \_\_\_\_\_

Flea \_\_\_\_\_

Bombardier Beetle \_\_\_\_\_

Spiders \_\_\_\_\_

7. What is the strongest animal in the world, ounce for ounce?

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8. What is the difference between a butterfly and a moth?

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**9.** Describe the four stages of the butterfly using the following clues:

- a. Egg
- b. C \_\_\_\_\_
- c. C \_\_\_\_\_
- d. B \_\_\_\_\_

**10.** What are the character traits of the ant?

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**11.** What benefit to mankind and to the earth does our Lord provide with the following animals?

- Earthworms \_\_\_\_\_
- Crustaceans \_\_\_\_\_
- Spiders \_\_\_\_\_

**12.** What are the animals that are generally seen as pests, covered in this chapter?

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**13.** Name that spider. To which spider has God given each of the amazing qualities listed below:

- a. This spider hides under a trap door of its own making and waits to ambush a victim.  
\_\_\_\_\_
- b. This spider is huge—it could fill your whole dinner plate. \_\_\_\_\_

c. This spider is able to live under water by building a diving bell out of its silk.

\_\_\_\_\_

d. This spider builds a net out of its web and uses it to capture its prey.

\_\_\_\_\_

e. This spider can set up a web across a river some 80 feet (25 m) wide.

\_\_\_\_\_

## SCRIPTURE

1. Praise the LORD from the earth, You \_\_\_\_\_ and all the depths; Fire and hail, snow and clouds; Stormy wind, fulfilling His word; Mountains and all hills; Fruitful trees and all cedars; Beasts and all cattle; \_\_\_\_\_ and flying fowl. (Psalm 148)
  
2. The LORD is gracious and full of compassion, Slow to anger and great in mercy. The LORD is good to \_\_\_\_\_, And His tender mercies are over \_\_\_\_\_. (Psalm 145)
  
3. This great and wide \_\_\_\_\_, In which are \_\_\_\_\_, Living things both small and great. There the ships sail about; There is that \_\_\_\_\_ Which You have made to play there. These all wait for You, That You may give them \_\_\_\_\_. (Psalm 104)
  
4. There are . . . things which are \_\_\_\_\_, But they are exceedingly wise: The \_\_\_\_\_ not strong, Yet they prepare their food in the summer. (Proverbs 30)
  
5. There be . . . things which are little upon the earth, but they are exceeding wise: The \_\_\_\_\_, and is in kings' palaces. (Proverbs 30:24,28)

**SPIRITUAL LIFE APPLICATION**

1. Study Psalm 148:7-11. What might the Lord be referring to, when He speaks of “great sea creatures” praising Him? What about creeping things? What could He be referring to here?

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2. What is the most amazing animal you studied in this chapter? What is your favorite, and what attributes of God does this display?

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## OBSERVATION AND DISSECTION

**Choose one of the following activities below and complete the exercises:**

1. Watch the miracle of metamorphosis. Find a caterpillar or order one or two. The caterpillar (larvae) stage and the pupa stage will last about two weeks each.

Follow directions here, using this helpful website: <https://learning-center.homesciencetools.com/article/butterfly-science-projects-and-activities/>

Order Caterpillar here: <https://www.homesciencetools.com/product/insect-lore-butterfly-garden-kit/>

Observe especially the following wonders God worked into this beautiful creation of His.

- a. Note the symmetry in the butterfly design. Our God's design of beauty involves the same appearance on one side of the animal as on the other side. Describe the pattern of the wings and other parts of the insect on one side and on the other side.

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- b. Count the legs on the caterpillar. It should have 3 pair of "pro-legs" up front, which qualifies the little guy as an insect.

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- c. Note the difference in what the caterpillar and the butterfly will eat. Also note how the insect eats.

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d. Praise the Lord for the miracle of metamorphosis! Consider the power of God in creation. What you see cannot be done by human science and human technology. Only God can produce such a wondrous thing.

**2. Dig up an earthworm.**

a. Run your fingers up and down the body of the worm. Do you feel the tiny sharp prickly hairs? These are called "setae" and they keep the earthworm secure in the dirt. If a bird tries to pull it out of the dirt, the setae keeps it stuck down in there. Sometimes, the bird will break off a part of the worm and leave the rest in the dirt. The setae also help the worm gain some traction while scooching along the ground.

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Take a moment, and praise the Lord for providing this design as a way of protecting this little invertebrate.

b. Count the hearts (near the mouth of the earthworm) on the end of where you will find a swollen band. You should count 5 pairs of hearts.

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c. Cut a part of the worm's tail off. Examine the blood. What color is it? Keep the earthworm in a jar for a week or two, and watch to see if the tail will grow back.

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Note: A planarium flatworm can grow a new head on a segment of its body, and believe it or not, its new head can retain old memories as well.



3. Dissect an earthworm using the instructions available on this website: <https://learning-center.homesciencetools.com/article/earthworm-dissection/>

Acknowledge God’s wisdom in creating a digestive system for the earthworm that can process dirt and still retain some nutrition! The earthworm is God’s cleanup crew under the ground, and this creature helps the dirt to produce crops, by breaking up the ground. Praise God for His wisdom and goodness in the creation of the earthworm!

4. Obtain a snail from the garden or somewhere else. Use a magnifying glass to study the snail. Handle your snail with plastic gloves (or be sure to wash your hands after touching it.)

a. How many tentacles can you see? \_\_\_\_\_

b. Where are the snail’s eyes located? \_\_\_\_\_

c. Where is the snail’s foot? \_\_\_\_\_

d. Place your snail on a piece of see-through smooth plastic. Watch from underneath using our magnifying glass to see how it can move along without sliding backwards every time its foot moves forward.

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e. Allow your snail to crawl around for a while in a box lined with a dark piece of paper. When it is done, sprinkle the paper with white talcum powder to follow its tracks. How does it move? Does he move in a straight line?

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f. Time your snail’s movements. How many seconds does it take it to move about one foot? Take 0.68 and divide that by the number of seconds, and that is how many miles per hour your snail can move.

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g. Place a lid over 3/4 of the box opening. Does the snail move towards the light or away from the light?

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