GRADING RUBRIC

You may use this grading rubric when it is called for in the Report-to-You Projects during Lesson 8.

Project Visuals (20 points)

Scientific accuracy

Complete according to directions

Neatness

Written Report (20 points)

Complete according to directions

Neatness

Project Creativity (20 points)

Oral Presentation (20 points)

Eye contact

Voice projection

Confidence in material

Worldview Accuracy (20 points)

Truth in Science - Science Criteria for Content (Breakdown by Grade Level and Unit)		
	Grades 3-4	**Grades 5-6**
Life	Science as a human endeavor Science as inquiry	Science as a human endeavor Nature of science Science as inquiry
Earth	The characteristics of organisms Life cycles of organisms Organisms and environments Characteristics and changes in populations Types of resources Changes in environments	Structure and function in living systems Reproduction and heredity Regulation and behavior Populations and ecosystems Diversity and adaptations of organisms Populations, resources, and environments Natural hazards
Physical	Properties of earth materials Objects in the sky Changes in earth and sky Understanding about science and technology Abilities of technological design Distinguish between natural and man-made objects Types of resources Science and technology in local challenges	Structure of the earth's system Earth in the solar system Earth's history Abilities of technological design Understanding about science and technology Populations, resources, and environments Natural hazards Science and technology in society

Grade 3 - Science Standards for Content (Breakdown by Chapter)	
Chapter 1 - Worldview	**Science Criteria Content**
• Introduce Worldview • What is Viewpoint? • Two Models of how the world began • Bridge of Bible History • What is Evolution? • What happened to the Dinosaurs? • What is the Scientific Method? • Dinosaurs: Fact or Belief?	• Science as a human endeavor • Science as inquiry

Chapter 2 - Classification	
• Introduce Classification • How are living things grouped? • Living and Non-living things • Grouping Plants • Grouping animals with backbones • Grouping animals without backbones • What makes thing Unique? • What makes animals Different?	• Science as a human endeavor • Science as inquiry • The characteristics of organisms
Chapter 3 - Plants	
• Introduce Plants • How are seeds different? • Main parts of plants • Roots and stems • New plants • Comparing plants from the Past • What makes a seed? • What makes a leaf?	• The characteristics of organisms • Life cycles of organisms • Organisms and environments
Chapter 4 - Animals and Humans	
• Introduce Animals and Humans • Butterfly Growth • Life cycle of a Butterfly • Life cycles: Mammals and Humans • Evolution or Creative Design? • Animals from the past • Camouflage • Animal Baby-sitter	• The characteristics of organisms • Life cycles of organisms • Organisms and environments
Chapter 5 - Meteorology	
• Introduce Meteorology • How do clouds form? • Earth's water • Changing forms of water • Weather • Weather's effect on people • How many breaths? • What's the weather like in ....?	• Objects in the sky • Changes in earth and sky • Understanding about science and technology
Chapter 6 - Geology	
• Introduce Geology • Fossils • Rocks and Minerals • Soil and Earth's layers • Volcanoes and Earthquakes • Weathering and Erosion • How does water change land? • What's inside the earth?	• Properties of earth materials • Changes in earth and sky • Science and technology in local challenges • Changes in environment
Chapter 7 - Earth's Resources	
• Introduce Earth's Resources • Got paper? • Material resources • Protecting and reusing • Technology • Technology helps us get energy • Bird hop, skip and jump • Junk mail	• Types of resources • Properties of earth materials • Abilities of technological design • Science and technology in local challenges • Distinguish between natural and man-made objects

STEP 4—Animals and Humans

L 1

God made the animals on days 5 and 6. On what day did God make man? *Day 6*

Why can neither way be proven? *The beginning of life cannot be observed*

LESSON 3

What are the four steps in the metamorphosis of a butterfly? *Egg, larva, pupa, adult*

Does metamorphosis suggest evidence of evolution or a Master Designer? *Master Designer*

SCIENCE REVIEW

1. A ***life cycle*** is the order of the stages in an animal's life. The stages are: birth, growth, ***development***, reproduction, and death.
2. All animals reproduce and make young animals of the same ***Kind***. Some animals grow from an ***egg*** inside their mother. Others hatch from an egg laid by the mother outside her body.
3. Most ***insects*** go through a lot of changes as they develop. Butterflies and moths begin as an egg, change into a ***larva*** that looks like a worm, then they form a ***cocoon*** during the pupa stage. The insect comes out of the cocoon as an adult.
4. Some ***vertebrates*** go through many changes in their life cycle. Some vertebrates do not go through as many changes in their life cycle. A frog is an example of a vertebrate that goes through a lot of changes. A frog begins life as an egg. It then hatches into a ***tadpole*** with tails and gills and no legs. It will then grow lungs and legs and lose its tail to become an adult frog.

LESSON 4

Is man the same as the animals, or a special creation? *A special creation*

In whose image was man created? *God's image*

What idea are evolutionists supporting by calling man an animal? *Common ancestor*

SCIENCE REVIEW

1. ***Mammal*** babies start as eggs just like other animals. In most mammals, the fertilized eggs, called ***embryos***, grow inside the mother's body. Young mammals need a lot of ***care*** from their mother after they are born.
2. Humans are often grouped with mammals because their life cycle and development are the ***same*** in many ways. But humans are a separate Kind from the other creatures. Humans are much more ***intelligent*** than animals. Humans can communicate with ***words***. We humans can think about things, ask questions, and explain things we want. Humans have religion.
3. Anyone who has a pet knows that animals can have thoughts and emotions. But they can never think about things such as how life ***began*** or where they will spend ***eternity***.

STEP 4—Animals and Humans

LESSON 5

Are birds' beaks examples of evolution or creative design? *Design*

How do their teeth allow them to eat what they do? *Horse teeth are flat for grinding plants; alligator teeth are sharp for gripping their prey*

SCIENCE REVIEW

4. An ***adaptation*** is a trait that helps a living organism ***survive*** in its environment.
5. Some adaptations help ***protect*** animals from harm.
6. Some animals ***camouflage*** themselves. Other animals may look like other, more dangerous animals. These are both adaptations for protection from predators.
7. Some animals defend themselves with ***poison*** or have hard or sharp body parts.
8. Some behaviors are learned, while others are ***inherited*** instincts.
9. An ***instinct*** is a behavior an animal is born able to do, such as migrate or hibernate.
10. Many animals ***learn*** from their parents and from other adult animals. They can learn behaviors that help them to survive. Sometimes they learn to hunt. Sometimes they learn to hide. Behaviors can be adaptations.

LESSON 6

Underline the statements in each paragraph that are opinion.

Creation Scientist: Some dinosaurs were very large. *It is thought that they lived before the Genesis Flood. Many people who study the Bible agree the Flood happened about 4,300 years ago. Many dinosaurs may have become extinct soon after that time.* According to the Bible and fossils we have found, man and dinosaurs lived at the same time. *The Book of Job (chapter 40) talks about a mysterious animal that may have been a dinosaur.*

Evolution Scientist: Some dinosaurs were very large. *They are believed to have lived in the Mesozoic period of time, between 65 and 250 million years ago. They are all thought to have died around 65 million years ago.*

SCIENCE REVIEW

1. ***Fossils*** are signs of past life.
2. Fossils may be ***molds***, casts, or impressions. They can be the ***animal*** itself or animal parts trapped in amber or tar pits. They can be footprints, trails, ***burrows***, or dung.
3. Animals believed to be ***extinct*** are no longer observed alive today.
4. When the environment changes, only the plants and animals that have ***adaptations*** that are good for the new habitat can survive.

LESSON 4

What is important to understand about the soil on the third day of creation?
It was mature and ready to grow plants.

Underline how Job described the core or the inside of the earth. Job 28:5 "As for the earth, from it comes bread, but underneath it is *turned up as by fire…*"

How could Job have known this fact thousands of years before modern geology?
Answers will vary

SCIENCE REVIEW

1. *Soil* is the thin layer of loose material that covers most of the Earth's land.
2. Soil is mostly *rock*; but it also contains air, water, and decayed plants and animals.
3. When plants and animals die or leave waste to *decay* (to break down or rot) into the soil, they leave nutrients (food) behind for new plants and animals.
4. Soil is organized into layers called *topsoil*, subsoil and then the *bedrock*.
5. The planet Earth consists of three layers: the *crust*, the *mantle*, and the *core*. Soil is only a thin part on the surface of the Earth's crust.

LESSON 5

What does it sound like the psalmist is describing? *An earthquake, volcano*

What event that occurred on May 18, 1980, in the state of Washington showed how much geologic activity could be accomplished in a very short period of time with the right condition? *Mount St. Helens erupted.*

SCIENCE REVIEW

1. Landforms are the solid *features* formed on the crust of the Earth.
2. *Landforms* can be formed both slowly and quickly.
3. *Magma* is the melted rock in the mantle of the Earth.
4. The melted rock that comes out onto the surface of the earth is called *lava*. One way to remember this is: "Magma flows in the Mantle in the Middle of the Earth. Lava flows on Land."
5. A *volcano* forms when a deep crack opens in the crust of the earth allowing magma to come up to the surface.
6. When volcanoes erupt, they add new *rock* material to the surface of the Earth.
7. *Earthquakes* are caused by sudden shifts of pieces of the Earth's crust.
8. Most earthquakes occur at *faults* (large cracks) in the Earth's crust.
9. Earthquake vibrations can cause a lot of damage by causing huge *waves*, *landslides,* and by crumbling buildings.

STEP 6—Geology

LESSON 6

Can you name any instances where erosion happened quickly, either from your own experience or from the news? *Answers will vary. Glen Canyon Dam, Mt. Saint Helens, etc.*

How does rapid erosion occur? *Large amounts of moving water.*

SCIENCE REVIEW

1. *Weathering* occurs when forces on Earth's surface break *rock* into smaller pieces and wear away Earth's crust.
2. *Plants* and *water* can cause weathering.
3. The movement of loose rock and dirt is called *erosion*.
4. *Wind*, water, gravity, *glaciers* and living things can move rock and dirt causing erosion.
5. Weathering and erosion usually happen slowly, but they can happen very *quickly*.

Quiz Answer Key

1. A
2. B
3. C
4. B
5. C
6. T
7. T
8. F
9. T

10. Answers may vary but should reflect that God gave Him the knowledge, or it was passed down through generations from Adam.

Bonus: "'As for the earth, from it comes bread, but underneath it is turned up as by fire; Its stones are the source of sapphires, and it contains gold dust.'" Job 28:5-6

Test Answer Key

1. B
2. A
3. C
4. A
5. C
6. C
7. B
8. T
9. T
10. F
11. F
12. T
13. E
14. B
15. F
16. A
17. C
18. D

19. Answers may vary but should mention one of the things studied in the verses from Job used in the chapter.

20. Answers may vary but should mention the adding of rock to the surface.

Bonus: See quiz—same bonus