

## Course Description

**Course Title:** 5<sup>th</sup> Grade Science

**Course Length:** Full Year

**Class Meetings (Per Week):** 3 times

**Textbook:** Science 5 for Christian Schools  
BJU Press

**General Course Description:** This course will teach scientific literacy as well as knowledge of God through studying the universe. This study will illustrate God's wisdom, power and sovereignty. It will enable the child to use scientific knowledge, skills and attitudes to identify and solve science related problems.

### **Biblical Principles:**

**The Bible and science do not conflict. (Psalm 19:1-7, Romans 1:19-20)**

**God controls every part of the natural world-His creation (Psalm 104:6-7, Job 9:5-7)**

**God desires that we study science, the details of His creation (Genesis 1:28, Job 12:7-8)**

**The human body reflects the glory and the image of the Lord (Psalm 139:14-16)**

**God uses plants as examples as provision and enjoyment (Matthew 21:18-19)**

**The universe is an illustration of God's divine nature and omnipotence (Psalm 19:1-4, Romans 1:20)**

### **General Course Content:**

#### **1<sup>st</sup> Quarter:**

Fossils

Oceans

Wind

#### **2<sup>nd</sup> Quarter:**

Weather

Flight

Molecules and Atoms

#### **3<sup>rd</sup> Quarter:**

Sun

Scientific Method

The Nervous System

#### **4<sup>th</sup> Quarter:**

Recycling

Safe Environment

Plants

### **Related Student Objectives/Learner Objectives:**

#### **The student will be able to:**

1. Identify the differences between fact and theory
2. Identify the differences between mold, casts and imprints
3. Explain the formation of fossils
4. Map the findings of a fossil site
5. Explain the classification of dinosaurs
6. List reasons for the oceans' importance

7. Identify properties concerning the earth's oceans
8. Identify the parts of a wave
9. Identify features of the ocean floor
10. Illustrate the landscape of the ocean floor
11. Identify sea animals
12. Identify products containing algin (seaweed)
13. Compare the wise vs. unwise use of the earth's oceans
14. Label a diagram of the troposphere and stratosphere
15. Explain how slanted and direct rays heat the earth's soil
16. List evidences of the presence of the wind
17. Label a diagram showing the Coriolis effect
18. List at least four descriptives of wind
19. Define relative humidity
20. List at least two conditions that affect relative humidity
21. Identify symbols denoting cold and warm fronts
22. Identify causes of pollution
23. Identify at least five ways to help prevent or correct pollution
24. Explain the Bernoulli principle
25. Explain Newton's Third Law of Motion
26. Identify the flight capabilities of a helicopter
27. Identify the four principles; lift, gravity, thrust, and drag, which affect flight
28. Identify the purposes of the vertical stabilizer
29. List the year of the first machine powered air flight (1903)
30. Identify the purpose of ailerons during flight
31. Identify the contribution to flight made by Charles Lindbergh, Orville and Wilbur Wright, Igor Sikorsky, and the Montgolfier's Brothers
32. Create simple models of atoms
33. Explain basic components of an atom
34. Determine whether atoms are moving at a fast or slow speed
35. Explain the atomic theory
36. Identify the elements in a compound from the atomic symbols
37. List the nine planets in our solar system
38. Identify the components of the sun's atmosphere
39. List at least four importance's of the sun to the earth
40. Identify the five forms of energy; light, electricity, chemical, nuclear, and heat
41. Identify convection, conduction, and radiation as forms of heat energy
42. Identify the three states of matter: solid, liquid, or gas
43. Identify whether objects are heat conductors or insulators
44. Identify the boiling and freezing points of water on the Celsius and Fahrenheit scales
45. List the components of the brain and nervous system
46. List at least four functions of the nervous system
47. Label the frontal lobe, temporal lobe, parietal lobe, cerebrum, cerebellum, and brain stem and list the functions of each
48. Identify the three stages of sleep
49. Identify good and poor sleeping habits
50. Differentiate between the three types of memory, immediate, short term and long term memory

51. Label the parts of a flower
52. Identify the differences between annual and perennial plants
53. Identify conifer and deciduous trees
54. Identify the importance of insect, wind and birds in the transfer of pollution
55. Define genetics as the study of how traits are passed from parent to offspring
56. Identify zygotes in a process called fertilization involving two cells
57. Identify zygotes as being able to grow either inside or outside the mother's body
58. Identify animals that grow inside the body and those that grow outside the mother's body
59. Distinguish between animals whose parents give much care & those whose parents give no care
60. Identify and label the parts of an egg
61. Define the word instinct
62. Identify skills an animal learns from its parents
63. Identify that an asexually reproduced animal is exactly like its parent
64. Match animal tracks with their description
65. Identify the movement of an animal by studying its track pattern
66. Identify the tracks of a bird, snake, frog, rabbit, squirrel, horse and cow
67. Calculate the weight of an animal by measuring the depths of its tracks in soft soil
68. Identify tracks made by ground dwelling birds
69. Identify the mode of moving; i.e. Hopping, walking, or running, with an animal's track pattern

**Presentation Method:**

- Hands on Activities
- Workbook
- Videos
- Experiments

**Evaluation and Grading Methods:**

- Written test at end of each unit
- Daily assignment grades
- Observation
 

90% - 100%	A
80% - 89%	B
70% - 79%	C
60%-69%	D
0% - 59%	F

**Enrichment and/or Supplemental Activities:**

- Group experiments
- Class science fair project
- Visit Science Fair
- Create models
- Fossil dig
- Airplane races