

**Grace Christian Academy
Course Description**

Course Title: 3rd Grade Science
Course Length: Full Year

Class Meetings (Per Week): 45 min. 2-3x Weekly
Textbook: Science 3 for Christian Schools; BJU Press

General Course Description: Hands on, textbook activities, and experiments to learn the science principles in the third grade text.

Biblical Principles:

By studying the universe we see illustrations of God's wisdom, omnipotence, sovereignty, and benevolence.

“The heavens declare the glory of God; the skies proclaim the work of His hands. Day after day they pour forth speech; night after night they display knowledge. There is no speech or language where their voice is not heard.” (Psalm 19:1-4)

“For since the creation of the world God's invisible qualities—His eternal power and divine nature—have been clearly seen, being understood from what has been made, so that men are without excuse.” (Romans 1:20)

Creation cries out to worship the Lord and to point man to its creator. Studying Creation and the laws God has put in place reveals the Creator.

“But ask the animals, and they will teach you, or the birds of the air, and they will tell you; or speak to the earth, and it will teach you, or let the fish of the sea inform you. Which of all these does not know that the hand of the Lord has done this? In His hand is the life of every creature and the breath of all mankind.” (Job 12:7-10)

Honesty and integrity are very important to the Lord. He describes these principles in terms of weights and measures frequently in the Bible.

“A just weight and balance are the Lord's.”(Proverbs 16:11)” “The Lord abhors dishonest scales, but accurate weights are His delight.” (Proverbs 11:1)

It is God who judges and weighs actions, attitudes, and character. Job requested to be weighed in an even balance so that the Lord would know His integrity (Job 31:6) and Belshazzar hears the interpretation of the writing on the wall which declared, “You are weighed in the balance and found wanting.” (Daniel 5:27)

All life, including plant life was made by God for His own purposes. He takes care of the plants; He uses them as examples, as provision, and for enjoyment.

“Early in the morning, as He was on His way back to the city, He was hungry, seeing a fig tree by the road, He went up to it but found nothing on it except leaves. Then He said to it, “May you never fruit again!” Immediately the tree withered. (Matthew 21:18-19)

“And why do you worry about clothes? See how the lilies of the field grow. They do not labor or spin. Yet I tell you that not even Solomon in all his splendor was dressed like one of these.” (Matthew 6:28-29)

Man was created separate and apart from other creation. It is humankind alone that reflects the glory and the image of the Lord. “I praise you because I am fearfully and wonderfully made; your works are wonderful. I know that full well...All the days ordained for me were written in your book before one of them came to be.”(Psalm 139:14-16)

So God created man in His own image, in the image of God He created him; male and female he created them. Genesis 1:27

General Course Content:**1st Quarter:**

Work
Sound
Mass Weight

2nd Quarter:

Minerals, Rocks, and Soil
Cells
Skin, Tissues, and Organs

3rd Quarter:

How Plants Live
Solar System

4th Quarter:

Animals Groups
Animals without Backbones
Animals with Backbones
Birds

Related Student Objectives/Learner Objectives:

The student will learn to:

1. Cooperatively share responsibilities and tasks
2. Use science materials in a safe, responsible manner
3. Demonstrate proper care and handling of living organisms and show respect for life
4. Stay on task in search of a solution
5. Pursue science-related leisure time activities
6. Demonstrate awareness of need for conservation, preservation & wise use of natural resources
7. Identify situations in which work is being done
8. Identify situations in which work is not being done
9. Multiply force times distance to compute the amount of work done
10. Identify which of the two work demonstrations took more power
11. List five actions that scientists would define as work
12. Predict whether a surface is more likely to absorb or reflect sound
13. Differentiate between causes of vibration
14. Differentiate among sounds that travel through air, water, wood, and metal
15. Demonstrate how sound travels through ear to the brain
16. Identify when sound is actually heard in the hearing process
17. Categorize sound according to pitch, loudness, and quality
18. Identify which of a pair of objects has more mass
19. Measure a weight in ounces
20. Balance a weight with grams
21. Compare a number of weights
22. Identify customary measurement terms
23. Identify metric measurement terms
24. Explain the procedure for using a pull-spring scale or balance
25. Describe a mineral crystal
26. Identify properties of minerals

27. Detect the presence of iron in selected fruit juices
28. List reasons for gold's being called a precious metal
29. Identify the conditions that will produce igneous, metamorphic, and sedimentary rocks
30. Identify ways in which rocks are weathered
31. Explain how soil is formed
32. Identify the seven main parts of a microscope
33. Observe plant cells using a microscope
34. Differentiate between plant and animal cells
35. Identify the main parts of a plant cell
36. Differentiate between plant and animal tissue
37. Differentiate between plant organs and animal organs
38. Identify the two layers of skin
39. List the protective functions of the skin
40. Demonstrate how perspiration can cool down the body
41. Distinguish between the location, function, and appearance of a sweat gland and an oil gland
42. Identify the three basic patterns of fingerprints
43. Classify various fingerprints into one of the three basic patterns
44. Apply logic and classifications to solve a mystery
45. Identify various parts of the skin
46. Describe the use of several skin-care items
47. Choose clothing appropriate for the weather
48. Explain the proper way to care for a cut
49. Differentiate between the leaves of deciduous trees and evergreen trees
50. Categorize the xylem tubes in a talk of celery
51. Understand the process of photosynthesis using paper molecule models
52. Identify various plant products and their uses
53. Identify various vegetables and fruits
54. Demonstrate the relative distance of the planets to the sun by measuring with a meter stick
55. Illustrate their idea of the surface of Venus from the facts they have learned
56. Differentiate facts about each planet
57. Distinguish between an asteroid and a comet
58. Calculate the return of Halley's Comet
59. Calculate what their age will be then
60. Name the planets in order of distance from the sun
61. Give a detailed report on one heavenly body of their choosing
62. Differentiate between a fall and a find
63. Distinguish between vertebrates and invertebrates
64. Distinguish between warm-blooded and cold-blooded animals
65. Identify carnivorous animals by what they eat
66. Identify herbivorous animals by what they eat
67. Identify omnivorous animals by what they eat
68. Record differences in movement between ants that are warm and cold
69. Recognize some simple animals
70. Label parts of simple animals
71. Describe three main groups of worms
72. Draw an earthworm

73. Classify spiny animals and mollusks
74. Remove chitin from a shrimp
75. Distinguish arthropods from other animals
76. Distinguish the outer covering of fish from the outer coverings of other vertebrate groups
77. Sequence the stages of a frog's development
78. Recognize various characteristics of reptile and bird eggs
79. Distinguish the outer coverings of mammals from those in other vertebrate groups
80. Identify specific examples of all vertebrate classes
81. Describe the characteristics of birds
82. Describe the various tools used observe birds
83. Identify seven visual markings of birds
84. Describe the specific characteristics of a cardinal
85. Identify four common birds by their visual characteristics
86. Describe four common non-singing birds

Presentation Methods:

- Hands On Activities
- Games for Learning and review
- Workbook
- Videos
- Experiments
- Field Trips
- Science Adventure Days

Evaluation and Grading Methods:

- Written Test at end of each unit
- Review of each chapter
- Worksheet grades
- Homework grades
- Observation
- Grading Scale:

100-90%	A	E = Exceeds Expectations
89-80%	B	M = Meets Expectations
79-70%	C	N = Needs Further Development
69-60%	D	
59-0%	F	

Enrichment and/or Supplemental Activities:

- Encourage student participation in Science Fair
- Visit Science Fair and Award Program