Course Description

Course Title: 1st Grade Science
Course Length: Full Year
Class Meetings (Per Week): 30 min. 2x/week
Textbook: Science 1 for Christian Schools BJU Press

General Course Description: This course is designed to help the student in developing a knowledge of God, encouraging Christian growth, promoting scientific literacy in using scientific knowledge, skills and attitudes to identify and solve science related problems.

Biblical Principles:
The Bible and findings of science do not conflict. (Psalm 19:1-7, Job 12:7-10, Romans 1:19-20)
God created the universe and everything in it. (Genesis 1:1, Psalm 148:5)
God desires that we study science, the details of His creation. (Genesis 1:28, Job 12:7-8)

General Course Content:

1st Quarter:

Your Senses: seeing, touching, tasting, smelling, hearing
Sun, Moon, and Stars: the parts of the sun, the path of the sun, the moon and the stars
Pushes and Pulls: gravity, magnetic force, mechanical force, friction

2nd Quarter:

Roots, Stems and leaves: parts for growing, grouping, and eating.
What is Matter? Takes up space, can be weighed, in solid form, in liquid and gas forms
Tame Animals: Tame Animals, in homes, what livestock do for people
Wild animals: wild animals in the woods, wild animals in zoos

3rd Quarter:

What can heat do? Changing form: Melting and Freezing, vaporizing and Condensing
Temperature changes with words and with numbers
Your Teeth: parts of teeth, sets of teeth, shapes and jobs of teeth, care of teeth
What is air like: the temperature of air, movement of air, water in air

4th Quarter:

Sound: how sound is made, sound travels in all directions, sound travels through all Forms of matter, how sound is used
Flowers, Fruit and Seeds: parts for making new plants, fruit and seeds, parts for eating
Weather: describing temperature of air, movement of air, water in air, jobs of Weatherman, recording weather observations

Related Objectives/Learner Outcomes:
The student will learn:

1. To sort animals into groups by how they respond to man
2. To explain the proper care of pets
3. To identify some of the tame animals that are raised on farms
4. To identify the products and services that livestock provide the people
5. To identify and describe animal tracks by the characteristics of shape and size
6. To describe how some wild animals make their home
7. Explain that God cares for wild animals

8. Distinguish wild animals from tame animals
9. To state reasons why some wild animals are kept in cages at zoos
10. To describe what zookeepers do for animals
11. To identify the senses we use to find out about an object
12. To define what science is
13. To match each sense organ to the appropriate sense
14. To describe size, color, shape and texture of a leaf
15. To identify flavors as either salty, sweet, sour, or bitter
16. To describe the movement of air using words like calm, gentle breeze and light
17. To read and write the thermometer reading correctly according to Fahrenheit scale
18. To state the jobs of the weatherman
19. To identify the four forms of precipitation (rain, sleet, hail, snow)
20. To track the weather for a week on a weather chart
21. To observe, record, and report the weather
22. To identify the sun's surface and its crown in a drawing
23. To identify the direction where the sun rises in the east
24. To identify the direction where the sun sets in the west
25. To imitate the path of the sun using the positioning of the hands
26. To describe the different shapes of the moon
27. To describe how the moon seems to change shapes but it really doesn't
28. To identify the Big Dipper and Orion in an illustration of stars of the northern sky
29. To identify the three parts of the tooth (crown, neck, and root)
30. To identify at least five differences between the first set and the second set of teeth
31. To state why losing the first set of teeth is part of God's plan
32. To state 2 basic jobs of teeth: chew and forming sounds
33. To indicate the different jobs of different teeth
34. Acknowledge the need for good dental practices
35. To identify gravity as force that makes things come down
36. To predict which objects will adhere to a magnet
37. To predict which objects will not adhere to a magnet
38. To identify magnetic force as the force that magnets exert
39. To identify and demonstrate examples of mechanical force
40. To explain that results of mechanical force are stopping and starting movement
41. To define friction as the force that resists a movement
42. To identify negative effects of friction
43. To identify ways to decrease friction
44. To identify positive effects of friction
45. To identify ways to increase friction
46. To describe the functions of flowers, fruits, and seeds
47. To identify the order in which flowers, fruits, and seeds appear
48. To sort flowers into groups according to the number of petals they have
49. To describe two or three kinds of flowers that people and/or animals eat
50. To sort fruit into groups according to whether they are dry or juicy
51. To locate the seed or seeds in various kinds of fruits
52. To identify several common foods people eat as flowers, fruit, or seeds
53. To indicate that heat from the sun increase the temperature of land, then heat from the land

increases the temperature of the air
54. To define wind as “moving air”
55. To indicate the direction in which warm air moves
56. To indicate the direction in which cool air moves
57. To arrange a cycle of events in order
58. To give examples of the first part of the water cycle in action
59. To complete an illustration of the three parts of the water cycle
60. To identify the adding of heat as a way to change matter from a solid form to a liquid form
61. To melt an ice cube by adding heat
62. To identify the taking away of heat as a way to change matter from a liquid to a solid form
63. To identify the adding of heat as a way to change matter from a liquid form to a gas form
64. To identify the taking away of heat as a way to change matter from a gas form to a liquid form
65. To describe the temperature in several situations, using a thermometer
66. To describe the temperature of water as hot, warm, cool, or cold
67. To identify the fact that heat causes temperature to rise
68. To identify the fact that taking away heat causes temperature to go down
69. To demonstrate the five ways of making sounds
70. To identify the way that at least five sounds were made
71. To demonstrate that sounds travel in all directions
72. To demonstrate that sound travels through a gas, a liquid, and through a solid
73. To identify sounds that give messages
74. To identify sounds that give pleasure
75. To identify the roots, stems, and leaves of various plants
76. To describe the functions of roots, stems, and leaves
77. To identify several leaves as either wide and flat or long and thin
78. To identify several kinds of foods they eat as either roots, stems, or leaves

Presentation Methods:

- Workbook activities
- Experiments
- Observation,
- Hands on activities
- Group participation
- Constructing models
- Videos

Evaluation and Grading Methods:

- Observation of group experiments
- Individual projects
- Tests and quizzes
- Grading Scale:

E = Exceeds Expectations	+ = Commendable
M=Meets Expectations	√ = Acceptable
N =Needs Further Development	─ = Area of Concern

Special Activities:

- Projects
- Field trips: St. Louis Zoo, Purina Farms
- Science Fair- entry optional in school wide Science Fair, held in Marc