



2017-2018 Curriculum Catalog

Science 300

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Science 300 Course Overview

Science 300 is a basic elementary course intended to expose students to the designs and patterns in God’s physical universe. This course provides a broad survey of the major areas of science. Some of the areas covered in Science 300 include the human body, plants, animals, health and nutrition, matter, sound waves, earth science, and heat energy.

The course seeks to develop the student’s ability to understand and participate in scientific inquiry. The units contain experiments and projects designed to build on children’s natural curiosity. The student will explore, observe, and manipulate everyday objects and materials in their environment. Collectively, this should help students develop a subject-matter knowledge base.

Upon completion of the course, students should be able to do the following:

- Demonstrate a basic understanding of the systems in a human body.
- Discuss the process a plant goes through in order to grow.
- Explain the difference between types of animals.
- Determine which eating and care habits are the most healthy for students.
- Distinguish between the three phases of matter and describe their properties.
- Explain how sound travels.
- Describe why time and seasons change.
- Discuss how rocks are formed and how they change.
- Explain how heat is produced.

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Unit 3: Animals: Growth and Change**Assignments**

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|---|----------------------------------|
| 1. Animals and The Environment | 11. Quiz 2 |
| 2. Experiment: Hourly Temperature Changes | 12. How Animals Grow and Change |
| 3. Experiment: Heat Energy Comparison* | 13. Project: Sow Bug Environment |
| 4. Project: Desert Locations* | 14. Quiz 3 |
| 5. Quiz 1 | 15. Special Project* |
| 6. How Animals are Different | 16. Review Game |
| 7. Animal Structures | 17. Test |
| 8. Project: Vertebrate Chart | 18. Alternate Test* |
| 9. Eating and Breathing | 19. Reference |
| 10. Project: Sort Birds By Type* | |

Unit 4: You Are What You Eat**Assignments**

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| 1. How to Build a Healthy Body | 10. How to Form Good Health Habits |
| 2. How to Build a Healthy Body-2 | 11. Caring for the Eyes and Body |
| 3. Quiz 1 | 12. Quiz 3 |
| 4. How to Plan for Healthy Eating | 13. Special Project* |
| 5. Project: Breakfast Chart | 14. Review Game |
| 6. Project: Lunch Chart* | 15. Test |
| 7. Project: Dinner Chart* | 16. Alternate Test* |
| 8. Project: Chart Totals* | 17. Reference |
| 9. Quiz 2 | |

Unit 5: Properties of Matter**Assignments**

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|----------------------------------|------------------------------------|
| 1. Chemistry and Robert Boyle | 11. Experiment: Mass Measurement |
| 2. Experiment: Be a Chemist | 12. Experiment: Melting Ice Cubes* |
| 3. Properties of Matter | 13. Chemical Changes |
| 4. Experiment: Volume | 14. Quiz 2 |
| 5. Experiment: Think about Mass* | 15. Special Project* |
| 6. Experiment: Is Air Matter?* | 16. Review Game |
| 7. Project: Matter List* | 17. Test |
| 8. Experiment: Is Water Matter?* | 18. Alternate Test* |
| 9. Quiz 1 | 19. Reference |
| 10. Physical Changes | |

Unit 6: Sounds and You	
Assignments	
Science 300	1. What is Sound?
	2. Experiment: Vibrations
	3. Quiz 1
	4. How Does Sound Travel?
	5. How Are Different Sounds Made?
	6. Experiment: Sound Patterns
	7. Report: Read and Write About Sound
	8. Experiment: High and Low Sounds
	9. Experiment: Loud or Soft?*
	10. Quiz 2
	11. How Do You Hear Sounds?
	12. Experiment: Think About Hearing
	13. Report: How Animals Hear*
	14. Quiz 3
	15. Special Project*
	16. Review Game
	17. Test
	18. Alternate Test*
	19. Reference

Unit 7: Time and Seasons	
Assignments	
Science 300	1. How the Earth Moves
	2. Experiment: The Earth
	3. Experiment: Night
	4. Experiment: The Earth's Rotation*
	5. Quiz 1
	6. Why Time Changes
	7. Experiment: Different Times
	8. Report: Months*
	9. Quiz 2
	10. Why Seasons Change
	11. Quiz 3
	12. Special Project*
	13. Review Game
	14. Test
	15. Alternate Test*
	16. Reference

Unit 8: Rocks and Their Change	
Assignments	
Science 300	1. How Rocks are Formed: By Heat
	2. Rocks Formed by Volcanoes
	3. How Rocks are Formed: By Pressure
	4. Experiment: Bubbling Grains of Rock
	5. Quiz 1
	6. Rocks are Changed by Wind and Water
	7. Rocks are Changed by Heat and Plants
	8. Quiz 2
	9. Rocks are Used for Building
	10. Report: Mount Rushmore
	11. Rocks are Used for Enjoyment
	12. Quiz 3
	13. Special Project*
	14. Review Game
	15. Test
	16. Alternate Test*
	17. Reference

Unit 9: Heat Energy	
Assignments	
Science 300	1. Heat Energy (Part 1)
	2. Experiment: Feeling Friction
	3. Experiment: Oxygen and Fire
	4. Heat Energy (Part 2)
	5. Experiment: Static Electricity*
	6. Quiz 1
	7. What Heat Energy Is and Does
	8. Experiment: Water Molecules
	9. Movement of Heat Energy
	10. Experiment: Changing Liquid to Gas
	11. Quiz 2
	12. Heat Energy Affects Our Lives
	13. Quiz 3
	14. Special Project*
	15. Review Game
	16. Test
	17. Alternate Test*
	18. Reference

Unit 10: Review	
Assignments	
Science 300	1. Physical Change: Change in Man
	2. Physical Change: Change in Plants
	3. Physical Change: Change in Animals
	4. Quiz 1
	5. The Earth
	6. Seasons and Times
	7. Project: Rock Collection
	8. Quiz 2
	9. Sounds and Energy
	10. Experiment: How Sound Travels
	11. Experiment: Temperature Comparisons
	12. Quiz 3
	13. Special Project*
	14. Review Game
	15. Test
	16. Alternate Test*
	17. Reference

(*) Indicates alternative assignment