­­Seventh Grade Science Curriculum Pacing Guide Teacher: Rosemary Calvert

St. Joseph School

2017 - 2018

**Course Description**: The Seventh Grade Science curriculum is divided into three parts: **Earth Science**: which includes exploring the universe, and the major geologic events that shape and continually reshape the surface of the Earth; **Life Sciences** where students will explore cells, cell functions, organ systems, photosynthesis, cellular respiration, and heredity; and  **Physical Science**  which will explore motion, how objects move in ways that can be observed, predicted, and measured and includes simple machines, force, speed, velocity and Newton’s Law of Motion.

These three areas of concentration build on student knowledge of the sixth grade curriculum and will provide a solid foundation for the 8th grade science curriculum

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| **Week** | **Date** | **Topic** |
| 1 | 8/8- 8/11 | Science Safety Rules, Scientific Method, Controls and Variables, Tools of Science, SI Units |
| 2 | 8/14 - 8/18 | Exploring the Universe |
| 3 | 8/21 - 8/25 | SOLAR ECLIPSE 8/21 Characteristics of Life, Classifying Organisms |
| 4 | 8/28- 9/1 | Exploring Life, Microscope Lab |
| 5 | 9/4 - 9/8 | Cell Theory, Cell: Prokaryotic and Eukaryotic |
| 6 | 9/11 - 9/15 | Cells Structure and Function, Cellular Transport |
| 7 | 9/18 - 9/22 | Photosynthesis and Cellular Respiration |
| 8 | 9/25 – 9/29 | Cell Cycle, Cell Division |
| 9 | 10/2- 10/6 | Levels of Organization |
|  | 10/9 – 10/13 | FALL BREAK |
| 10 | 10/16- 10/20 | Sexual Reproduction and Meiosis |
| 11 | 10/23- 10/27 | Meiosis, Asexual Reproduction |
| 12 | 10/30 - 11/3 | Compare Mitosis and Meiosis. |
| 13 | 11/6-11/10 | Gregor Mendel and Mendelian Genetics |
| 14 | 11/13-11/17 | Patterns of Inheritance, Punnet Squares |
| 15 | 11/20-11/21 | DNA and Genetics |
|  | 11/22 – 11/24 | THANKSGIVING BREAK |
| 16 | 11/27-11/30 | Formation of Fossils and Fossil Evidence of Change over Time |
| 17 | 12/4-12/8 | Theory of Evolution by Natural Selection, Biological Evidence of Evolution |
| 18 | 12/11-12/15 | Biodiversity, Midterm Review |
| 19 | 12/18-12/21 | Midterm Review and Midterm Exams |
|  | 12/22 – 1/5/2018 | CHRISTMAS BREAK |
| 20 | 2018  1/8-1/12 | Human Body Systems: Digestive System, Excretory System. |
| 21 | 1/15-1/19 | Respiratory System, Circulatory System, Immune System |
| 22 | 1/22- 1/26 | Skeletal, Muscular, and Nervous Systems |
| 23 | 1/29 - 2/2 | SCIENCE FAIR 1/31, Endocrine System, Reproductive System |
| 24 | 2/5 - 2/9 | Human Development |
| 25 | 2/12 - 2/16 | Plants: Energy Processes, Plant Response to stimuli |
| 26 | 2/19 - 2/23 | Plant Reproduction |
| 27 | 2/26 - 3/2 | Ecosystems, Populations and Communities |
| 28 | 3/5 -3/9 | Energy and Matter in Ecosystems |
|  | 3/12 – 3/16 | SPRING BREAK |
| 29 | 3/19 – 3/23 | Classification of Matter |
| 30 | 3/26-3/29 | Physical Properties and Physical Changes, GOOD FRIDAY 3/30 |
| 31 | 4/3- 4/6 | EASTER MONDAY 4/2, Chemical Properties and Chemical Changes, Periodic Table |
| 32 | 4/9 - 4/13 | Motion and Forces |
| 33 | 4/16- 4/20 | Newton’s Laws of Motion |
| 34 | 4/23 - 4/27 | Weather, Weather Patterns, Predicting Weather |
| 35 | 4/30 - 5/4 | Climate, Climate Cycles |
| 36 | 5/7 - 5/11 | Review for Finals |
| 37 | 5/14 - 5/18 | Review for Finals, Middle School Exams, 8th Grade Graduation |
| 38 | 5/21 – 5/24 | Middle School Exams , Field Day |