

# Year At a Glance: Physical Science

# 2016-2017

|           | Week | Major Concepts / Topics   | Possible Resources   |
|-----------|------|---|--|
| Quarter 1 | 1    | Beginning Science skills including Lab safety, review of lab equipment and lab practices.       | <b>Cpalms. Org</b> for all topics.<br><b>Florida Student.org:</b> all topics<br><b>PhET.com simulation:</b> Forces and Motion: Basics.<br><b>Bozemanscience.com:</b> "Energy, Work &Power" |
|           | 2-3  | SC.N.1.1-1.7, N.2.1,-2.5, N.4.1-4.2: Nature and Practice of Science                             |  |
|           | 4-7  | SC.912.P.12.2-4, N.3.3: Newton's Laws, Kinetics.  |  |
|           | 8-9  | SC.912.P.10.1-10.3: Energy, Work & Power  |  |
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| Quarter 2 | 1-3  | SC.912.P.8.1, SC.912.P.10.4, 10.5, 10.14: Energy transfer, concepts of conductors & insulators. | <b>PhET.com simulation:</b> Ohm's Law, Resistance in a Wire.   |
|           | 4-6  | SC.912.P.10.18, 10.21, 12.7: Waves  |  |
|           | 7-9  | SC912.P.10.15: Electrical circuits, relationships amongst current, voltage, resistance & power. |  |
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| Quarter 3 | 1-4  | SC.912.P.8.2, P.12.10,11, P.12.10: Physical/chemical changes, endo/exothermic reactions, gases. | <b>Bozemanscience.com:</b> Matter, A Tour of the Periodic Table, Physical & Chemical Changes.  |
|           | 5-9  | SC.912.P.8.4, N.3.1, 3.5, P.8.5: Atomic Theory and the Periodic Table.                          |  |
|           | Week | Major Concepts / Topics   | Possible Resources   |
| Quarter 4 | 1-4  | SC.912.P.8.7, 8.8, 12.12: Writing/naming Chemical Compounds, Types of reactions.                | <b>PhET.com simulation:</b> Acid-Base Solutions,pH scale, Balancing Chemical Equations.<br><b>Bozemanscience.com:</b> Nuclear Reactions  |
|           | 5    | SC.912.P.8.11: Acid/Bases   |  |
|           | 6    | SC.912.P.10.10/10.11: Chemical and Nuclear Reactions  |  |

All standards are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

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|  | 7-9 | SC.912. L. 18.12, 18.7, 18.8, E.7.1: Properties of Water, Photosynthesis/Cellular Respiration, Biogeochemical Cycles. |
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