

**MIAMI-DADE COUNTY PUBLIC SCHOOLS
DISTRICT PACING GUIDE
2013-2014 YEAR-AT-A-GLANCE**

| Grade 5 | | COURSE CODE: 5020060 | |
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| <p>Big Idea 1: The Practice of Science A: Scientific inquiry is a multifaceted activity; The processes of science include the formulation of scientifically investigable questions, construction of investigations into those questions, the collection of appropriate data, the evaluation of the meaning of those data, and the communication of this evaluation. B: The processes of science frequently do not correspond to the traditional portrayal of "the scientific method." C: Scientific argumentation is a necessary part of scientific inquiry and plays an important role in the generation and validation of scientific knowledge. D: Scientific knowledge is based on observation and inference; it is important to recognize that these are very different things. Not only does science require creativity in its methods and processes, but also in its questions and explanations.</p> | | <p>Big Idea 2: The Characteristics of Scientific Knowledge A: Scientific knowledge is based on empirical evidence, and is appropriate for understanding the natural world, but it provides only a limited understanding of the supernatural, aesthetic, or other ways of knowing, such as art, philosophy, or religion. B: Scientific knowledge is durable and robust, but open to change. C: Because science is based on empirical evidence it strives for objectivity, but as it is a human endeavor the processes, methods, and knowledge of science include subjectivity, as well as creativity and discovery.</p> <p style="background-color: yellow;">The science skills taught in Big Ideas 1 and 2 will help prepare students in developing their science fair projects for the District Elementary Science Fair held in January. It is suggested that schools conduct their Science Fair during the first week of December.</p> | |
| <p>Big Ideas 1 and 2 should be introduced during the first nine weeks, and then embedded in all science lessons throughout the year as they blend easily with teaching inquiry and are the basis of an activity/lab-based science classroom:</p> | | | |
| <ul style="list-style-type: none"> SC.5.N.1.1 Define a Problem, Do Research, Investigate, Defend Conclusions SC.5.N.1.2 Compare use of Experiments and other Types of Investigations SC.5.N.1.3 Recognize and Explain the Need for Repeated Experimental Trials SC.5.N.1.4 Identify a Control Group and Explain its Importance SC.5.N.1.5 Recognize that Steps of the Scientific Method can Vary | | <ul style="list-style-type: none"> SC.5.N.1.6 Understand the difference between personal interpretation and verified observations SC.5.N.2.1 Empirical Observations and Linked to Evidence SC.5.N.2.2 Recognize that Evidence Produced should be Replicated | |
| 1 ST Nine Weeks | 2 ND Nine Weeks | 3 RD Nine Weeks | 4 TH Nine Weeks |
| <p>Big Idea 1: The Practice of Science Big Idea 2: The Characteristics of Scientific Knowledge I. Practicing Science AA (08/19-08/23) II. Thinking Like a Scientist AA(08/26-8/30) Big Idea 8: Properties of Matter III. SC.5.P.8.1 - Properties of Solids, Liquids and Gases. AA (09/03-09/06) IV. SC.5.P.8.3 Mixtures of Solids can be Separated. AA SC.5.P.8.2 - Materials that Dissolve in Water. AA SC.5.P.8.4 – Atoms (09/09-09/20) V. Science Fair Project Introduction Suggested Timeline begins 09/23 with projects due 11/25 for Dec. school site fair. Big Idea 9: Changes in Matter VI. SC.5.P.9.1 - Physical and Chemical Changes. AA (09/30-10/11) Big Idea 13: Forces and Changes in Motion VII. SC.5.P.13.1- Forces AA SC.5.P.13.2- Changes in Motion AA SC.5.P.13.3- Forces that Move objects AA SC.5.P.13.4- Balanced and Unbalanced Forces AA (10/14-10/24)</p> | <p>Big Idea 10: Forms of Energy VIII. SC.5.P.10.1 - Forms of Energy AA SC.5.P.10.2 - Energy can cause motion or create change. AA (10/28-11/07) Big Idea 11: Energy Transfer IX. SC.5.P.10.4- Electrical energy can be transformed. AA SC.5.P.8.4- Protons, Neutrons, Electrons SC.5.P.10.3 – Electrically charged objects AA SC.5.P.11.1 – Flow of Electricity AA SC.5.P.11.2 – Conductors and Insulators AA (11/12-11/27) Big Idea 5: Earth in Space and Time X. SC.5.E.5.1- Our Galaxy AA SC.5.E.5.3- Solar system AA SC.5.E.5.2- Planet Characteristics AA SC.4.E.5.4- Movement in Space (Also assesses SC.4.E.5.1; SC.4.E.5.2) AA (12/02-12/20) Big Idea 6: Earth Structures XI. SC.4.E.6.2-Minerals and Rocks (Also assesses SC.4.E.6.1) AA SC.4.E.6.3- Earth's Resources (Also assesses SC.4.E.6.6) AA SC.4.E.6.4- Weathering/Erosion AA(01/06-01/16)</p> | <p>Big Idea 7: Earth Systems and Patterns XII. SC.5.E.7.1 - Water Cycle AA (01/21-01/31) SC.5.E.7.2 - Water Cycle Processes AA XIII. SC.5.E.7.3 - Weather AA SC.5.E.7.4 - Forms of Precipitation AA SC.5.E.7.5 - Weather Conditions AA SC.5.E.7.6 - Climate Zones AA (02/3-02/14) Big Idea 14: Organization & Dev. of Living Organisms Big Idea 16: Heredity and Reproduction XIV. SC.3.L.14.1- Plant Structures and Functions (Also assesses SC.3.L.14.2; SC.4.L.16.1) AA SC.5.L.14.2- Comparing Plant and Animal Organ functions (Also assesses SC.3.L.15.1; SC.3.L.15.2) AA SC.4.L.16.4- Life Cycles AA (02/18-02/28) Big Idea 17: Interdependence XV. SC.5.L.17.1-Animal Adaptations AA SC.5.L.15.1- Environmental Changes AA (03/03-03/14) XVI. SC.4.L.17.3 Food Chain AA (Also assesses SC.4.L.17.2, SC.3.L.17.2) (03/17-03/20)</p> | <p>Big Idea 14: Organization & Dev. of Living Organisms XVII. SC.5.L.14.1- Human Body Organs AA (03/31-04/04) XVIII. FCAT Crunch Time Review (04/07-4/21) XIX. Health Literacy: Concept Human Growth and Development HE.5.C.1.6 Explain how human body parts and organs work together in healthy body systems, including the endocrine and reproductive systems. HE.5.C.1.1; HE.5.C.1.2 HE.5.C.1.5; HE.5.C.2.4 (04/28-05/16) XX. SC.5.E.7.7- Natural Disaster Plans (05/19-06/05)</p> |