MIAMI-DADE COUNTY PUBLIC SCHOOLS
DISTRICT PACING GUIDE

YEAR-AT-A-GLANCE

EARTH/SPACE SCIENCE			Course Code: 2001310
1ST Nine Weeks	**2nd Nine Weeks**	**3rd Nine Weeks**	**4th Nine Weeks**
I. Intro to Earth and Space Science A. Branches of Earth Science B. Lab Safety C. SI System and Measurement D. Graphing E. Lab Report Format II. Scientific Method A. Experimental Design B. Measurements and Analysis C. Acceptance of Scientific Ideas III. Chemistry for Earth Science A. Identifying Matter B. Atomic Structure C. Elements, Ions, Isotopes D. Periodic Table E. Compounds and Equations F. Significant Elements, Compounds in Earth/Space Science IV. The Atmosphere A. Understanding Systems B. Characteristics of the Atmosphere C. Solar Radiation D. Energy V. Water in the Atmosphere A. States of Matter B. Phase Changes of Water C. The Water Cycle D. Humidity E. Clouds VI. Weather A. Air Pressure and Air Masses B. Weather Fronts C. Storms and Severe Weather D. Collecting Weather Data E. Forecasting the Weather VII. Climate A. Climate vs. Weather B. Climate Zones C. Factors that Affect Climate D. Earth's Spheres E. Energy and Climate	VIII. Environmental Science and Concerns A. Earth's Geochemical Cycles B. Energy Resources C. Burning of Fossil Fuels D. Atmospheric Pollutants E. Human Impact IX. Global Climate Change A. Evidence for Global Climate Change B. Causes for Global Climate Change C. Effects of Global Climate Change X. The Oceans A. Origin of the Oceans B. Major Oceans and Seas C. Seawater D. Topographic Features XI. Ocean Dynamics A. Ocean Movements B. Ocean Currents C. Ocean's Effect on Weather and Climate D. Ocean Resources E. Oceans as a Carbon Sink F. Impact of Oceans on Florida XII. Layers of Earth A. Layers of the Earth B. Discovery of the Layers C. Magnetosphere XIII. Minerals and Rocks A. Minerals B. Rocks C. The Rock Cycle	XIV. Continental Drift and Plate Tectonics A. Theory of Continental Drift B. Evidence Continents were Connected C. Plate Tectonics D. Mechanism for Movement E. Effects of Plate Movement XV. Earthquakes A. Why Earthquakes Happen B. Anatomy of Earthquakes C. Seismic Waves and the Transfer of Energy D. Structure of Earth's Interior E. Relationship to Plate Tectonics F. Measuring Earthquakes G. Earthquakes and Society XVI. Volcanoes A. Volcanic Relationship to Plate Tectonics B. Types of Volcanic Activity C. Types of Volcanoes D. Predicting Volcanic Eruptions E. Impact of Volcanic Activity on Society XVII. Weathering and Erosion A. Weathering B. Erosion and Deposition C. Soil Formation D. Landscape Features as a Result of Weathering, Erosion, and Deposition XVIII. Geology of Florida A. Florida's Geologic Regions B. Geologic History of Florida C. Mineral Resources of Florida XIX. Paleontology A. Fossil Formation B. Significance of Fossils XX. Geologic Time A. Time Classification B. Geologic Time Scale	XXI. History of Astronomy A. Astronomy vs. Astrology B. Early Astronomers C. Modern Astronomers D. The Space Race E. The Space Program XXII. Instruments of Astronomy A. Measuring Space B. Electromagnetic Spectrum C. Telescopes D. Artificial Satellites E. Spacecrafts and Probes XXIII. Physics in Astronomy A. Kepler's Laws B. Newton's Laws C. Law of Universal Gravitation XXIV. Origins of the Universe A. Evidence for the Big Bang Theory B. Formation of the Solar System XXV. The Sun A. Structure of the Sun B. Fusion and the Sun's Energy C. Solar Weather D. Impact of Solar Weather on Earth XXVI. Earth and Moon A. Formation of the Moon B. Features of the Moon C. Motion of the Moon D. The Earth-Moon System XXVII. The Solar System A. Terrestrial/Inner Planets B. Gas Giants/Outer Planets C. Minor Bodies of the Solar System XXVIII. Stars A. Characteristics of Stars B. Stellar Evolution C. Star Systems XXIX. Galaxies A. Galaxies B. Anatomy of a Galaxy C. The Milky Way XXX. Space Exploration A. Benefits of the Space Program B. Florida and the Space Program C. Search for Life Beyond Earth D. The Future of Space Exploration