

Programs

Earth & Space Science					Life Sciences							Science & Technology				Physical Sciences	Scientific Inquiry							Scientific Ways of Knowing																																																																																																																																																																																																																																																																																																																																																																																																																				
Earth Systems					Character-istics & Structures of Life	Diversity & Interdependence of Life				Evolutionary Theory	Understanding Technology			Abilities to do Design	Nature of Matter	Doing Scientific Inquiry							Ethical Practices																																																																																																																																																																																																																																																																																																																																																																																																																					
1. Explain the biogeochemical cycles which move materials between the lithosphere, hydrosphere and atmosphere.					1. Investigate the great variety of body plans and internal structures found in multicellular organisms.	3. Explain how the number of organisms an ecosystem can support depends on adequate biotic resources and abiotic resources.				7. Explain that photosynthetic cells convert solar energy into chemical energy that is used to carry on life functions or is transferred to consumers and used to carry on their life functions.	8. Investigate the great diversity among organisms.	1. Explain how needs, attitudes and values influence the direction of technological development in various cultures.		2. Describe how decisions to develop and use technologies often put environmental and economic concerns in direct competition with each other.	3. Recognize that science can only answer some questions and technology can only solve some human problems.	4. Design and build a product or create a solution to a problem given two constraints.	1. Investigate how matter can change forms but the total amount of matter remains constant.	1. Explain that variables and controls can affect the results of an investigation and that ideally one variable should be tested at a time; however it is not always possible to control all variables.	2. Identify simple independent and dependent variables.	3. Formulate and identify questions to guide scientific investigations that connect to science concepts and can be answered through scientific investigations.	4. Choose the appropriate tools and instruments and use relevant safety procedures to complete scientific investigations.	5. Analyze alternative scientific explanations and predictions and recognize that there may be more than one good way to interpret a given set of data.	6. Identify faulty reasoning and statements that go beyond the evidence or misinterpret the evidence.	7. Use graphs, tables and charts to study physical phenomena and infer mathematical relationships between variables.	2. Describe how repetition of an experiment may reduce bias.																																																																																																																																																																																																																																																																																																																																																																																																																			
2. Explain that Earth's capacity to absorb and recycle materials naturally can change the environmental quality depending on the length of time involved.																																																																																																																																																																																																																																																																																																																																																																																																																																												