



Zula Exploration Mission Modules
Alignment Overview to PALS
Performance Assessment Links in Science

Module Key

Physical Science	Life Science	Earth Science
1. Simple machines 2. Force 3. Mixtures, Solutions, and Chemical Reactions 4. Matter 5. Light 6. Invisible Forces	7. Habitats: Oceans, Rainforests, and Canyons 8. Plants, Animals, and Life Cycles 9. Animal Adaptations 10. Animals and Energy 11. Garden Habitats	12. Water 13. Earth's Water Cycle 14. Evaporation and Condensation 15. Earth's Changing Environment 16. Weather 17. Wind and Erosion 18. Rocks and Soil 19. Landforms: Mountains and Volcanoes 20. Objects in the Sky: Sun and Moon

Science as Inquiry (4ASI)	Standards K-4	Zula's Exploration Mission Modules™
4ASI1	Abilities necessary to do scientific inquiry	
4ASI1.1	Ask a question about objects, organisms, and events	All
4ASI1.2	Plan and conduct a simple investigation	All
4ASI1.3	Employ simple equipment and tools to gather data	All
4ASI1.4	Use data to construct a reasonable explanation	All
4ASI1.5	Communicate investigations and explanations	All
4ASI2	Understandings about scientific inquiry	
4ASI2.1	Asking and answering a question	All
4ASI2.2	Types of investigations and doing a fair test	All
4ASI2.3	Simple instruments	All
4ASI2.4	Develop explanations using observations (evidence)	All
4ASI2.5	Scientists make the results of their investigations public	All
(4ASI2.6)	Review and ask questions about results	All
Physical Science 4BPS		
4BPS1	Properties of objects and materials	
4BPS1.1	Observable properties	3,4,13
4BPS1.2	Materials and their properties	3,4,13
4BPS1.3	States of matter	3,4,13
4BPS2	Position and motion of objects	
4BPS2.1	Describing position	1,2
4BPS2.2	Describing motion	1,2
4BPS2.3	Changing position and motion	1,2
4BPS2.4	Sound	

4BPS3	Light, heat, electricity, and magnetism	
4BPS3.1	Behavior of light	5
4BPS3.2	Heat production and conduction	
4BPS3.3	Electricity in circuits	
4BPS3.4	Magnets	6
Life Science 4CLS		
4CLS1	Characteristics of organisms	
4CLS1.1	Needs of organisms	8,9,10,11,12
4CLS1.2	Structure and function	8,9,10,11,12
4CLS1.3	Behavior and senses	8,9,10,11,12
4CLS2	Life cycles	
4CLS2.1	Life cycles of different organisms	8,9,10,11,12
4CLS2.2	Resembling parents	8,9,10,11,12
4CLS2.3	Heredity and environmental interactions	8,9,10,11,12
4CLS3	Organisms and environments	
4CLS3.1	Food chains	8,9,10,11,12
4CLS3.2	Organisms relations to the environment	8,9,10,11,12
4CLS3.3	Organisms effects on the environment	8,9,10,11,12
4CLS3.4	Humans and the environment	8,9,10,11,12
Earth and Space Science 4DESS		
4DESS1	Properties of earth materials	
4DESS1.1	Earth/atmosphere materials	18,19
4DESS1.2	Soils	18,19
4DESS1.3	Fossils	18,19
4DESS2	Objects in the sky	

4DESS2.1	Properties of objects in the sky	5,21
4DESS2.2	The Sun	5,21
4DESS3	Changes in earth and sky	
4DESS3.1	Surface changes	18
4DESS3.2	Weather	4,5,17
4DESS3.3	Patterns	17,18,21
Science and Technology 4EST		
4EST1	Abilities of technological design	
4EST1.1	Identify a simple problem	All
4EST1.2	Propose a solution	All
4EST1.3	Implementing proposed solutions	All
4EST1.4	Evaluate a product or design	All
4EST1.5	Communicate a problem, design, and solution	All
4EST2	Understanding about science and technology	
4EST2.1	Science is one way of answering questions people have about the world	All
4EST2.2	People invent tools and techniques to solve problems and avoid new problems	All
4EST2.3	Teams of scientists and engineers often work together	All
4EST2.4	All kinds of women and men do a variety of scientific/technological work	All
4EST2.5	Tools help scientists do science better	All
4EST3	Abilities to distinguish between natural objects and objects made by humans	
4EST3.1	Some objects occur in nature; others are made by people to enhance life	All
4EST3.2	Objects can be categorized into two groups, natural and designed	All
Science in Personal and Social Perspectives 4FSPSP		
4FSPSP1	Personal health	
4FSPSP1.1	Safety and security are basic needs of humans	
4FSPSP1.2	Individuals have some responsibility for their own health	
4FSPSP1.3	Nutrition is essential to health	

4FSPSP1.4	Different substances can damage the body and how it functions	
4FSPSP2	Characteristics and changes in populations	
4FSPSP2.1	Human populations include groups living in a particular location	
4FSPSP2.2	The size of a human population can increase or decrease	
4FSPSP3	Types of resources	
4FSPSP3.1	We get resources from the living and nonliving environment	
4FSPSP3.2	Some resources are basic materials, some are produced from basic resources, some are nonmaterial.	
(4FSPSP3.3	The supply of many resources is limited.	
4FSPSP4)	Changes in environments	
4FSPSP4.1	Environmental factors affect the ability to survive and the quality of life	8,9
4FSPSP4.2	Changes in environments can be natural or influenced by humans	8,9
4FSPSP4.3	Some environmental changes occur slowly, others occur rapidly	8,9
4FSPSP5	Science and technology in local challenges	
4FSPSP5.1	People continue inventing new ways of doing things/solving problems	NA
4FSPSP5.2	Science and technology have greatly improved things for some people	NA
History and Nature of Science 4GHNS1		
4GHNS1	Science as a human endeavor	
4GHNS1.1	Science and technology have been practiced by people for a long time	NA
4GHNS1.2	Men and women have made a variety of contributions throughout the history of science and technology	NA
	Much more remains to be understood, science will never be finished	NA
4GHNS1.4	Many people choose science as a lifelong career and enjoy it	NA