



Zula's Exploration Mission Modules
Alignment with Illinois Learning Standards for Early Elementary

SM = Simple Machines Exploration Mission Module

MSCR = Mixture, Solutions, and Chemical Reactions Exploration Mission Module

FR = Force Exploration Mission Module

HB = Habitats Exploration Mission Module

MA = Matter Exploration Mission Module

LT = Light Exploration Mission Module

H₂O = Water Exploration Mission Module

PALC = Plants, Animals, and Life Cycles Exploration Mission Module

All = All current and future Zula activities and lesson plans

FK = Future Mission Exploration Modules

Language Arts

State Goal 1: Read with understanding and fluency.

Learning Standard B: Apply reading strategies to improve understanding and fluency.

- Benchmark 1.B.1a – Establish purposes for reading, make predictions, connect important ideas and link text to previous experiences and knowledge. (All)
- Benchmark 1.B.1c – Continuously check and clarify for understanding. (All)

Learning Standard C: Comprehend a broad range of reading materials.

- Benchmark 1.C.1a - Use information to form questions and verify predictions. (All)
- Benchmark 1.C.1b – Identify important themes and topics. (All)
- Benchmark 1.C.1c – Make comparisons across reading selections. (All)
- Benchmark 1.C.1e – Identify how authors and illustrators express their ideas in text and graphics. (All)
- Benchmark 1.C.1f – Use information presented in simple tables, maps and charts to form an interpretation. (All)

State Goal 2: Read and understand literature representative of various societies, eras, and ideas.

Learning Standard A: Understand how literary elements and techniques are used to convey meaning.

- Benchmark 2.A.1a – Identify the literary elements of theme, setting, plot and character within literary works. (All)

Learning Standard B: Read and interpret a variety of literary works.

- Benchmark 2.B.1a – Respond to literary materials by connecting them to their own experience and communicate those responses to others. (All)
- Benchmark 2.B.1c – Relate character, setting and plot to real-life situations. (All)

State Goal 3: Write to communicate for a variety of purposes.

Learning Standard C: Communicate ideas in writing to accomplish a variety of purposes.

- Benchmark 3.C.1a – Write for a variety of purposes including description, information, explanation, persuasion, and narration. (All)
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State Goal 4: Listen effectively in formal and informal situations.

Learning Standard A: Listen effectively in formal and informal situations.

- Benchmark 4.A.1a – Listen attentively by facing the speaker, making eye contact and paraphrasing what is said. (All)
- Benchmark 4.A.1b – Ask questions and respond to questions from the teacher and from group members to improve comprehension. (All)
- Benchmark 4.A.1c – Follow oral instructions accurately. (All)
- Benchmark 4.A.1d – Use visually oriented and auditorily based media. (All)

Learning Standard B: Speak effectively using language appropriate to the situation and audience.

- Benchmark 4.B.1a – Present brief oral reports, using language and vocabulary appropriate to the message and audience. (All)
- Benchmark 4.B.1b – Participate in discussions around a common topic. (All)

State Goal 5: Use the language arts to acquire, assess and communicate information.

Learning Standard A: Locate, organize, and use information from various sources to answer questions, solve problems, and communicate ideas.

- Benchmark 5.A.1a – Identify questions and gather information. (All)
- Benchmark 5.A.1b – Locate information using a variety of resources. (All)

Learning Standard B: Analyze and evaluate information acquired from various sources.

- Benchmark 5.B.1a – Select and organize information from various sources for a specific purpose. (All)

Learning Standard C: Apply acquired information, concepts and ideas to communicate in a variety of formats.

- Benchmark 5.C.1b – Use print, nonprint, human and technological resources to acquire and use information. (All)

Mathematics

State Goal 6: Demonstrate and apply a knowledge and sense of numbers, including numeration and operations, patterns, ratios and proportions.

Learning Standard D: Solve problems using comparison of quantities, ratios, proportions and percents.

- Benchmark 6.D.1 – Compare the numbers of objects in groups. (SM, MSCR, HB, FK)

State Goal 7: Estimate, make and use measurements of objects, quantities and relationships and determine acceptable levels of accuracy.

Learning Standard A: Measure and compare quantities using appropriate units, instruments and methods.

- Benchmark 7.A.1a – Measure length, volume and weight/mass using rules, scales and other appropriate measuring instruments in the customary and metric systems. (SM, MSCR, FR, H2O)
- Benchmark 7.A.1d – Read temperatures to the nearest degree from Celsius and Fahrenheit thermometers. (FK)

State Goal 9: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

Learning Standard A: Demonstrate and apply geometric concepts involving, points, lines, planes and space.

- Benchmark 9.A.1a – Identify related two- and three-dimensional shapes including circle-sphere, square-cube, triangle-pyramid, rectangle-rectangular prism and their basic properties. (SM)
- Benchmark 9.A.1b – Draw two dimensional shapes. (All)

Learning Standard B: Identify, describe, classify and compare relationships using points, lines, planes and solids.

- Benchmark 9.B.1a – Identify and describe characteristics, similarities and differences of geometric shapes. (SM)
- Benchmark 9.B.1b – Sort, classify and compare familiar shapes. (SM)

State Goal 10: Collect, organize and analyze data using statistical methods, predict results; and interpret uncertainty using concepts of probability.

Learning Standard A: Organize, describe and make predictions from existing data.

- Benchmark 10.A.1a – Organize and display data using pictures, tallies, tables, charts or bar graphs. (All)
- Benchmark 10.A.1b – Answer questions and make predictions based on given data. (All)

Learning Standard B: Formulate questions, design data collection methods, gather and analyze data and communicate findings.

- Benchmark 10.B.1a – Formulate questions of interest and design surveys or experiments to gather data. (All)
- Benchmark 10.B.1b – Collect, organize and describe data using pictures, tallies, tables, charts or bar graphs. (All)
- Benchmark 10.B.1c – Analyze data, draw conclusions and communicate the results. (All)

Science

State Goal 11: Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

Learning Standard A: Know and apply the concepts, principals and processes of scientific inquiry.

- Benchmark 11.A.1a – Describe an observed event. (All)
- Benchmark 11.A.1b – Develop questions on scientific topics. (All)
- Benchmark 11.A.1c – Collect data for investigations using measuring instruments and technologies. (All)
- Benchmark 11.A.1d – Record and store data using available technologies. (All)
- Benchmark 11.A.1f – Compare observations of individual and group results. (All)

Learning Standard B: Know and apply the concepts, principles and processes of technological design.

- Benchmark 11.B.1a – Given a simple design problem, formulate possible solutions. (SM, HB)

State Goal 12: Understand the fundamental concepts, principles and interconnections of life, physical, and earth/space sciences.

Learning Standard A: Know and apply concepts that explain how living things function, adapt and change.

- Benchmark 12.A.1a – Identify and describe the component parts of living things and their major functions. (HB, PALC)
- Benchmark 12.A.1b – Categorize living organisms using a variety of observable features. (HB, PALC)

Learning Standard B: Know and apply concepts that describe how living things interact with each other and with their environment.

- Benchmark 12.B.1a – Describe and compare characteristics of living things in relationship to their environments. (HB, PALC)
- Benchmark 12.B.1b – Describe how living things depend on one another for survival. (HB, PALC)

Learning Standard C: Know and apply concepts that describe properties of matter and energy and the interactions between them.

- Benchmark 12.C.1a – Identify and compare sources of energy. (LT)
- Benchmark 12.C.1b – Compare large-scale physical properties of matter. (MA)

Learning Standard D: Know and apply concepts that describe force and motion and the principles that explain them.

- Benchmark 12.D.1a – Identify examples of motion. (SM, FR)
- Benchmark 12.D.1b – Identify observable forces in nature. (FR)

Learning Standard E: Know and apply concepts that describe the features and processes of the Earth and its resources.

- Benchmark 12.E.1a – Identify components and describe diverse features of the Earth's land, water and atmospheric systems. (H2O, HB, FK)
- Benchmark 12.E.1b – Identify and describe patterns of weather and seasonal change. (FK)

Learning Standard F: Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

- Benchmark 12.F.1a – Identify and describe characteristics of the sun, Earth and moon as familiar objects in the solar system. (FK, LT)
- Benchmark 12.F.1b – Identify daily, seasonal and annual patterns related to the Earth's rotation and revolution. (FK)

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

Learning Standard A: Know and apply the accepted practice of science.

- Benchmark 13.A.1a – Use basic safety practices. (All)
- Benchmark 13.A.1b – Explain why similar results are expected when procedures are done the same way. (All)
- Benchmark 13.A.1c – Explain how knowledge can be gained by careful observation. (All)

Learning Standard B: Know and apply concepts that describe the interaction between science, technology and society.

- Benchmark 13.B.1a – Explain the uses of common scientific instruments. (All)
- Benchmark 13.B.1b – Explain how using measuring tools improves the accuracy of estimates. (MSCR)
- Benchmark 13.B.1d – Identify and describe ways that science and technology affect people's everyday lives. (All)