



Zula Exploration Mission Modules Texas Essential Knowledge and Skills Curriculum Alignment Overview

Module Key:

1. Simple machines
2. Force
3. Habitats
4. Plants, Animals, and Life Cycles
5. Water
6. Light
7. Matter
8. Mixtures, Solutions, and Chemical Reactions

Science K – Grade 3	Modules that address Standard
<p>Kindergarten</p> <p>b. Knowledge and Skills</p> <p>(1) Scientific processes. The student participates in classroom and field investigations following home and school safety procedures.</p> <p>(2) Scientific processes. The student develops abilities necessary to do scientific inquiry in the field and the classroom.</p> <p>(3) Scientific processes. The student knows that information and critical thinking are used in making decisions.</p> <p>(4) Scientific processes. The student uses age-appropriate tools and models to verify that organisms and objects and parts of organisms and objects can be observed, described, and measured. The student is expected to:</p> <p>(5) Science concepts. The student knows that organisms, objects, and events have properties and patterns.</p> <p>(6) Science concepts. The student knows that systems have parts and are composed of organisms and objects.</p> <p>(7) Science concepts. The student knows that many types of change occur. The student is expected to:</p> <p>(8) Science concepts. The student knows the difference between living organisms and nonliving objects. The student is expected to:</p> <p>(9) Science concepts. The student knows that living organisms have basic needs. The student is expected to:</p>	<p>All</p> <p>All</p> <p>All</p> <p>All</p> <p>1, 2, 3, 5, 6, 8</p> <p>3, 4, 5, 6, 7</p> <p>1, 2, 3, 4, 5, 6, 7, 8</p> <p>4</p> <p>3, 4</p>

<p>(10) Science concepts. The student knows that the natural world includes rocks, soil, and water. The student is expected to:</p>	<p>5</p>
<p>Grade One</p>	
<p>(b) Knowledge and skills.</p>	
<p>(1) Scientific processes. The student conducts classroom and field investigations following home and school safety procedures.</p>	<p>All</p>
<p>(2) Scientific processes. The student develops abilities necessary to do scientific inquiry in the field and the classroom.</p>	<p>All</p>
<p>(3) Scientific processes. The student knows that information and critical thinking are used in making decisions.</p>	<p>All</p>
<p>(4) Scientific processes. The student uses age-appropriate tools and models to verify that organisms and objects and parts of organisms and objects can be observed, described, and measured.</p>	<p>All</p>
<p>(5) Science concepts. The student knows that organisms, objects, and events have properties and patterns. The student is expected to:</p>	<p>1, 2, 3, 4, 5, 6, 7, 8</p>
<p>(6) Science concepts. The student knows that systems have parts and are composed of organisms and objects. The student is expected to:</p>	<p>3, 4, 5, 6, 7</p>
<p>(7) Science concepts. The student knows that many types of change occur. The student is expected to:</p>	<p>1, 2, 3, 4, 5, 6, 7, 8</p>
<p>(8) Science concepts. The student distinguishes between living organisms and nonliving objects. The student is expected to:</p>	<p>4</p>
<p>(9) Science concepts. The student knows that living organisms have basic needs.</p>	<p>3, 4</p>

<p>(10) Science concepts. The student knows that the natural world includes rocks, soil, and water.</p>	<p>5</p>
<p>Grade Two</p>	
<p>(b) Knowledge and skills.</p>	
<p>(1) Scientific processes. The student conducts classroom and field investigations following home and school safety procedures.</p>	<p>All</p>
<p>(2) Scientific processes. The student develops abilities necessary to do scientific inquiry in the field and the classroom.</p>	<p>All</p>
<p>(3) Scientific processes. The student knows that information and critical thinking are used in making decisions.</p>	<p>All</p>
<p>(4) Scientific processes. The student uses age-appropriate tools and models to verify that organisms and objects and parts of organisms and objects can be observed, described, and measured. The student is expected to:</p>	<p>All</p>
<p>(5) Science concepts. The student knows that organisms, objects, and events have properties and patterns.</p>	<p>1, 2, 3, 4, 5, 6, 7, 8</p>
<p>(6) Science concepts. The student knows that systems have parts and are composed of organisms and objects.</p>	<p>3, 4, 5, 6, 7</p>
<p>(7) Science concepts. The student knows that many types of change occur.</p>	<p>1, 2, 3, 4, 5, 6, 7, 8</p>
<p>(9) Science concepts. The student knows that living organisms have basic needs.</p>	<p>3, 4</p>

Grade Three

(b) Knowledge and skills.

(1) Scientific processes. The student conducts field and laboratory investigations following home and school safety procedures and environmentally appropriate and ethical practices

All

(2) Scientific processes. The student uses scientific inquiry methods during field and laboratory investigations.

All

(3) Scientific processes. The student knows that information, critical thinking, and scientific problem solving are used in making decisions.

All

(4) Scientific processes. The student knows how to use a variety of tools and methods to conduct science inquiry.

All

(5) Science concepts. The student knows that systems exist in the world.

3, 4, 5, 6, 7

(6) Science concepts. The student knows that forces cause change.

1, 2

(7) Science concepts. The student knows that matter has physical properties.

5, 7, 8

(8) Science concepts. The student knows that living organisms need food, water, light, air, a way to dispose of waste, and an environment in which to live.

3, 4

(9) Science concepts. The student knows that species have different adaptations that help them survive and reproduce in their environment. The student is expected to:

4, Future Kit—Adaptation

(10) Science concepts. The student knows that many likenesses between offspring and parents are inherited from the parents.

4, Future Kit—Adaptation

(11) Science concepts. The student knows that the natural world includes earth materials and objects in the sky.

5, 6, Future Kits—Sun, Moon, Earth, Planets, Solar System, Soil, Rocks

English Language Arts and Reading K – Grade 3	Modules that address Standard
<p>Kindergarten</p> <p>(b) Knowledge and skills.</p> <p>(1) Listening/speaking/purposes. The student listens attentively and engages actively in a variety of oral language experiences.</p> <p>(3) Listening/speaking/audiences/oral grammar. The student speaks appropriately to different audiences for different purposes and occasions.</p> <p>(4) Listening/speaking/communication. The student communicates clearly by putting thoughts and feelings into spoken words.</p> <p>(5) Reading/print awareness. The student demonstrates knowledge of concepts of print.</p> <p>(8) Reading/vocabulary development. The student develops an extensive vocabulary. The student is expected to:</p> <p>(9) Reading/comprehension. The student uses a variety of strategies to comprehend selections read aloud.</p> <p>(10) Reading/literary response. The student responds to various texts.</p> <p>(11) Reading/text structures/literary concepts. The student recognizes characteristics of various types of texts.</p> <p>(12) Reading/inquiry/research. The student generates questions and conducts research about topics introduced through selections read aloud and from a variety of other sources.</p> <p>(14) Writing/spelling/penmanship. The student develops the foundations of writing.</p>	<p>All</p> <p>All</p> <p>All</p> <p>All</p> <p>All</p> <p>All</p> <p>All</p> <p>All</p> <p>All</p>

<p>(15) Writing/composition. The student composes original texts.</p>	<p>All</p>
<p>(16) Writing/inquiry/research. The student uses writing as a tool for learning and research.</p>	<p>All</p>
<p>Grade One</p>	
<p>(b) Knowledge and skills.</p>	
<p>(1) Listening/speaking/purposes. The student listens attentively and engages actively in a variety of oral language experiences.</p>	<p>All</p>
<p>(3) Listening/speaking/audiences/oral grammar. The student speaks appropriately to different audiences for different purposes and occasions.</p>	<p>All</p>
<p>(4) Listening/speaking/communication. The student communicates clearly by putting thoughts and feelings into spoken words.</p>	<p>All</p>
<p>(5) Reading/print awareness. The student demonstrates knowledge of concepts of print.</p>	<p>All</p>
<p>(9) Reading/fluency. The student reads with fluency and understanding in texts at appropriate difficulty levels.</p>	<p>All</p>
<p>(10) Reading/variety of texts. The student reads widely for different purposes in varied sources.</p>	<p>All</p>
<p>(11) Reading/vocabulary development. The student develops an extensive vocabulary.</p>	<p>All</p>
<p>(12) Reading/comprehension. The student uses a variety of strategies to comprehend selections read aloud and selections read independently.</p>	<p>All</p>
<p>(13) Reading/literary response. The student responds to various texts.</p>	<p>All</p>

<p>(14) Reading/text structures/literary concepts. The student recognizes characteristics of various types of texts.</p> <p>(15) Reading/inquiry/research. The student generates questions and conducts research about topics using information from a variety of sources, including selections read aloud.</p> <p>(17) Writing/penmanship/capitalization/punctuation. The student develops the foundations of writing.</p> <p>(18) Writing/purposes. The student writes for a variety of audiences and purposes and in a variety of forms.</p> <p>(19) Writing/writing processes. The student selects and uses writing processes to compose original text.</p> <p>(20) Writing/spelling. The student spells proficiently.</p> <p>(21) Writing/grammar/usage. The student composes meaningful texts by applying knowledge of grammar and usage.</p> <p>(23) Writing/inquiry/research. The student uses writing as a tool for learning and research.</p>	<p>All</p> <p>All</p> <p>All</p> <p>All</p> <p>All</p> <p>All</p> <p>All</p>
<p>Grade Two</p>	
<p>(b) Knowledge and skills.</p> <p>(1) Listening/speaking/purposes. The student listens attentively and engages actively in a variety of oral language experiences.</p> <p>(3) Listening/speaking/audiences/oral grammar. The student speaks appropriately to different audiences for different purposes and occasions.</p>	<p>All</p> <p>All</p>

(4) Listening/speaking/communication. The student communicates clearly by putting thoughts and feelings into spoken words.	All
(6) Reading/fluency. The student reads with fluency and understanding in texts at appropriate difficulty levels.	All
(7) Reading/variety of texts. The student reads widely for different purposes in varied sources.	All
(8) Reading/vocabulary development. The student develops an extensive vocabulary.	All
(9) Reading/comprehension. The student uses a variety of strategies to comprehend selections read aloud and selections read independently.	All
(10) Reading/literary response. The student responds to various texts.	All
(11) Reading/text structures/literary concepts. The student analyzes the characteristics of various types of texts.	All
(12) Reading inquiry/research. The student generates questions and conducts research using information from various sources.	All
(14) Writing/purposes. The student writes for a variety of audiences and purposes, and in various forms.	All
(17) Writing/grammar/usage. The student composes meaningful texts applying knowledge of grammar and usage.	All
(18) Writing/writing processes. The student selects and uses writing processes for self-initiated and assigned writing.	All
(20) Writing/inquiry/research. The student uses writing as a tool for learning and research.	All

Grade Three

(b) Knowledge and skills.

- | | |
|--|-----|
| (1) Listening/speaking/purposes. The student listens attentively and engages actively in various oral language experiences. | All |
| (2) Listening/speaking/culture. The student listens and speaks to gain knowledge of his/her own culture, the culture of others, and the common elements of cultures. | All |
| (3) Listening/speaking/audiences/oral grammar. The student speaks appropriately to different audiences for different purposes and occasions. | All |
| (4) Listening/speaking/communication. The student communicates clearly by putting thoughts and feelings into spoken words. | All |
| (5) Reading/word identification. The student uses a variety of word identification strategies. | All |
| (6) Reading/fluency. The student reads with fluency and understanding in texts at appropriate difficulty levels. | All |
| (7) Reading/variety of texts. The student reads widely for different purposes in varied sources. | All |
| (8) Reading/vocabulary development. The student develops an extensive vocabulary. | All |
| (9) Reading/comprehension. The student uses a variety of strategies to comprehend selections read aloud and selections read independently. | All |
| (10) Reading/literary response. The student responds to various texts. | All |
| (11) Reading/text structures/literary concepts. The student analyzes the characteristics of various types of texts. | All |

(12) Reading/inquiry/research. The student generates questions and conducts research using information from various sources.

All

(14) Writing/purposes. The student writes for a variety of audiences and purposes and in various forms.

All

(17) Writing/grammar/usage. The student composes meaningful texts applying knowledge of grammar and usage.

All

(18) Writing/writing processes. The student selects and uses writing processes for self-initiated and assigned writing.

All

(20) Writing/inquiry/research. The student uses writing as a tool for learning and research.

All

Mathematics K – Grade 3	Modules that address Standard
<p>Kindergarten</p> <p>(b) Knowledge and skills.</p> <p>(K.1) Number, operation, and quantitative reasoning.</p> <p>(K.2) Number, operation, and quantitative reasoning. The student describes order of events or objects.</p> <p>(K.3) Number, operation, and quantitative reasoning. The student recognizes that there are quantities less than a whole.</p> <p>(K.4) Number, operation, and quantitative reasoning. The student models addition (joining) and subtraction (separating).</p> <p>(K.5) Patterns, relationships, and algebraic thinking. The student identifies, extends, and creates patterns.</p> <p>(K.6) Patterns, relationships, and algebraic thinking. The student uses patterns to make predictions.</p> <p>(K.7) Geometry and spatial reasoning. The student describes the relative positions of objects.</p> <p>(K.8) Geometry and spatial reasoning. The student uses attributes to determine how objects are alike and different.</p> <p>(K.9) Geometry and spatial reasoning. The student recognizes attributes of two- and three-dimensional geometric figures.</p>	<p>1, 3, 4, 5, 8</p> <p>1, 3, 4, 5, 6, 8</p> <p>4, 5, 8</p> <p>4, 5, 8</p> <p>1, 2, 7</p> <p>2</p> <p>1, 2, 3, 5, 6</p> <p>1, 2, 3, 5, 6</p> <p>1, 3, 5, 6,</p>

<p>(K.10) Measurement. The student directly compares the attributes of length, area, weight/mass, capacity, and/or relative temperature. The student uses comparative language to solve problems and answer questions.</p> <p>(K.11) Measurement. The student uses time to describe, compare, and order events and situations.</p> <p>(K.12) Probability and statistics. The student constructs and uses graphs of real objects or pictures to answer questions.</p> <p>(K.13) Underlying processes and mathematical tools. The student applies Kindergarten mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>(K.14) Underlying processes and mathematical tools. The student communicates about Kindergarten mathematics using informal language.</p> <p>(K.15) Underlying processes and mathematical tools. The student uses logical reasoning.</p>	<p>1, 2, 3, 4, 5, 6, 7, 8</p> <p>1, 2, 7</p> <p>1, 3, 4, 5, 6, 7</p> <p>All</p> <p>All</p> <p>All</p>
<p>Grade One</p>	
<p>(b) Knowledge and skills.</p>	
<p>(1) Number, operation, and quantitative reasoning. The student uses whole numbers to describe and compare quantities.</p>	<p>1, 3, 4, 5, 7</p>
<p>(2) Number, operation, and quantitative reasoning. The student uses pairs of whole numbers to describe fractional parts of whole objects or sets of objects.</p>	<p>1, 3, 5, 7, 8</p>
<p>(4) Patterns, relationships, and algebraic thinking. The student uses patterns to make predictions.</p>	<p>1, 2, 3, 5, 7, 8</p>

<p>(5) Patterns, relationships, and algebraic thinking. The student recognizes patterns in numbers and operations.</p>	2
<p>(6) Geometry and spatial reasoning. The student uses attributes to identify, compare, and contrast shapes and solids.</p>	2, 3, 4, 5, 6, 7
<p>(7) Measurement. The student uses nonstandard units to describe length, weight, and capacity.</p>	1, 2, 5, 6
<p>(8) Measurement. The student understands that time and temperature can be measured.</p>	1, 2, 3, 4, 5, 6, 7, 8
<p>(9) Probability and statistics. The student displays data in an organized form.</p>	7
<p>(10) Probability and statistics. The student uses information from organized data.</p>	1, 3, 4, 5, 7
<p>(11) Underlying processes and mathematical tools. The student applies Grade 1 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p>	1, 3, 4, 5, 7
<p>(12) Underlying processes and mathematical tools. The student communicates about Grade 1 mathematics using informal language.</p>	All
<p>(13) Underlying processes and mathematical tools. The student uses logical reasoning to make sense of his or her world. The student is expected to reason and support his or her thinking using objects, words, pictures, numbers, and technology.</p>	All

Grade Two

(b) Knowledge and skills.

(1) Number, operation, and quantitative reasoning. The student understands how place value is used to represent whole numbers. The student is expected to use concrete models to represent, compare, and order whole numbers (through 999), read the numbers, and record the comparisons using numbers and symbols ($>$, $<$, $=$).

1, 3, 4, 5, 7

(2) Number, operation, and quantitative reasoning. The student uses fraction words to name parts of whole objects or sets of objects.

1, 3, 5, 5, 7, 8

(3) Number, operation, and quantitative reasoning. The student adds and subtracts whole numbers to solve problems.

1, 2, 3, 5, 7, 8

(4) Number, operation, and quantitative reasoning. The student models multiplication and division.

1, 3, 5, 7, 8

(5) Patterns, relationships, and algebraic thinking. The student uses patterns in numbers and operations.

1, 2, 3, 5, 7, 8

(6) Patterns, relationships, and algebraic thinking. The student uses patterns to describe relationships and make predictions.

2, 3, 4, 5, 6, 7

(7) Geometry and spatial reasoning. The student uses attributes to identify, compare, and contrast shapes and solids.

1, 2, 5, 6

<p>(9) Measurement. The student recognizes and uses models that approximate standard units (metric and customary) of length, weight, capacity, and time.</p> <p>(10) Measurement. The student uses standard tools to measure time and temperature.</p> <p>(11) Probability and statistics. The student organizes data to make it useful for interpreting information.</p> <p>(12) Underlying processes and mathematical tools. The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>(13) Underlying processes and mathematical tools. The student communicates about Grade 2 mathematics using informal language.</p> <p>(14) Underlying processes and mathematical tools. The student uses logical reasoning to make sense of his or her world. The student is expected to reason and support his or her thinking using objects, words, pictures, numbers, and technology.</p>	<p>1, 2, 3, 4, 5, 6, 7, 8</p> <p>7</p> <p>1, 3, 4, 5, 7</p> <p>All</p> <p>All</p> <p>All</p>
<p>Grade Three</p>	
<p>(b) Knowledge and skills.</p> <p>(3.1) Number, operation, and quantitative reasoning. The student uses place value to communicate about increasingly large whole numbers in verbal and written form, including money.</p> <p>(3.2) Number, operation, and quantitative reasoning. The student uses fraction names and symbols (with denominators of 12 or less) to describe fractional parts of whole objects or sets of objects.</p> <p>(3.3) Number, operation, and quantitative reasoning. The student adds and subtracts to solve meaningful problems involving whole numbers.</p>	<p>1, 3, 4, 5, 7</p> <p>1, 3, 5, 7, 8</p> <p>1, 2, 3, 5, 7, 8</p>

<p>(3.4) Number, operation, and quantitative reasoning. The student recognizes and solves problems in multiplication and division situations.</p>	<p>1, 3, 5, 7, 8</p>
<p>(3.6) Patterns, relationships, and algebraic thinking. The student uses patterns to solve problems.</p>	<p>1, 2, 3, 5, 7, 8</p>
<p>(3.8) Geometry and spatial reasoning. The student uses formal geometric vocabulary.</p>	<p>1, 2, 5, 6</p>
<p>(3.11) Measurement. The student directly compares the attributes of length, area, weight/mass, and capacity, and uses comparative language to solve problems and answer questions. The student selects and uses standard units to describe length, area, capacity/volume, and weight/mass.</p>	<p>1, 2, 3, 4, 5, 6, 7, 8</p>
<p>(3.12) Measurement. The student reads and writes time and measures temperature in degrees Fahrenheit to solve problems.</p>	<p>7</p>
<p>(3.13) Probability and statistics. The student solves problems by collecting, organizing, displaying, and interpreting sets of data.</p>	<p>1, 3, 4, 5, 7</p>
<p>(3.14) Underlying processes and mathematical tools. The student applies Grade 3 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p>	<p>All</p>
<p>(3.15) Underlying processes and mathematical tools. The student communicates about Grade 3 mathematics using informal language.</p>	<p>All</p>
<p>(3.16) Underlying processes and mathematical tools. The student uses logical reasoning.</p>	<p>All</p>