

CURRICULUM *Correlation*

*Waterford Reading
Academy:
Math & Science*

100%

*Next Generation
Science Standards
2017*

**Correlation content includes both Waterford Digital Resources and Waterford Teacher Resources.*

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NEXT GENERATION STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
KINDERGARTEN		
K-PS2 MOTION AND STABILITY: FORCES AND INTERACTIONS		
K-PS2-1 Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.	<ul style="list-style-type: none"> • Song: Push and Pull • Book: Mr. Mario’s Neighborhood • Push and Pull 	<ul style="list-style-type: none"> • Learning Together: How It Works
K-PS2-2 Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.	<ul style="list-style-type: none"> • Song: Push and Pull • Push and Pull 	
K-PS3 ENERGY		
K-PS3-1: Make observations to determine the effect of sunlight on Earth’s surface.	<ul style="list-style-type: none"> • Songs: Water; Plants Are Growing; Sun Blues • Sun • Water 	
PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.	Waterford encourages everyone to have writing, drawing, and art materials available for children’s creations.	
K-LS1 FROM MOLECULES TO ORGANISMS: STRUCTURES AND PROCESSES		
K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.	<ul style="list-style-type: none"> • Song: Water • Book: Mela’s Water Pot • Sun • Plants • Water 	<ul style="list-style-type: none"> • More to Explore Experiment: Water for Plants • Learning Together: Green and Growing
K-ESS2 EARTH’S SYSTEMS		
K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.	<ul style="list-style-type: none"> • Song: Seasons • Book: That’s What I Like: A Book About Seasons • Calendar/Graph Weather • Weather Patterns • Clouds • Spring • Summer • Fall • Winter 	<ul style="list-style-type: none"> • Learning Together: Weather; The Weather Around Us • Weather Cards

NEXT GENERATION STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
K-ESS2 EARTH'S SYSTEMS <i>continued</i>		
K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	<ul style="list-style-type: none"> Books: Winter Snoozers; Birds at My House; The Old Maple Tree 	
K-ESS3 EARTH AND HUMAN ACTIVITY		
K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.	<ul style="list-style-type: none"> Song: Four Ecosystems Book: Where in the World Would You Go Today? Oceans Mountains Deserts Rainforests 	<ul style="list-style-type: none"> Learning Together: Our Earth
K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	<ul style="list-style-type: none"> Songs: Precipitation; Storms Book: Whatever the Weather Weather Tools Calendar/Graph Weather 	
K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.	<ul style="list-style-type: none"> Songs: Conservation; Pollution Rap Pollution and Recycling Care of Water Care of Earth 	<ul style="list-style-type: none"> More to Explore Experiment: Recycling Learning Together: Our Earth
FIRST GRADE		
1-PS4 WAVES AND THEIR APPLICATIONS IN TECHNOLOGIES FOR INFORMATION TRANSFER		
1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	<ul style="list-style-type: none"> Song: Sound Book: What Sounds Say Sound Waves 	<ul style="list-style-type: none"> More to Explore Experiment: Sound
1-PS4-2. Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated.	<ul style="list-style-type: none"> Book: Lightning Bugs 	

NEXT GENERATION STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
1-PS4 WAVES AND THEIR APPLICATIONS IN TECHNOLOGIES FOR INFORMATION TRANSFER <i>continued</i>		
1-PS4-3. Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.	<ul style="list-style-type: none"> • Book: My Family Campout • Light Properties • Properties of Light 	
1-PS4-4. Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.	<ul style="list-style-type: none"> • Song: Inventing • Books: I Want to Be a Scientist Like Thomas Edison; Inventions All Around 	
1-LS1 FROM MOLECULES TO ORGANISMS: STRUCTURES AND PROCESSES		
1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	<ul style="list-style-type: none"> • Books: I Wish I Had Ears Like a Bat; Animal Bodies 	
1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	<ul style="list-style-type: none"> • Song: Animal Bodies • Animal Behavior • Animal Bodies 	
1-LS3 HEREDITY: INHERITANCE AND VARIATION OF TRAITS		
1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	<ul style="list-style-type: none"> • Books: George and Jack; A Seed Grows • Build Knowledge: Mine 	<ul style="list-style-type: none"> • More to Explore Experiment: Traits
1-ESS1 EARTH'S PLACE IN THE UNIVERSE		
1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.	<ul style="list-style-type: none"> • Songs: The Moon; Sun Blues • Books: Moon Song; Star Pictures; My Family Campout • Sun • Moon • Constellations 	<ul style="list-style-type: none"> • More to Explore Experiment: The Moon • Learning Together: The Sky Above Us
1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.	<ul style="list-style-type: none"> • Sun • Spring • Summer • Fall • Winter 	

NEXT GENERATION STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
SECOND GRADE		
2-PS1 MATTER AND ITS INTERACTIONS		
2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Changes in Matter • Movement of Heat • States of Water • Materials 	
2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Heat Experiment 	
2-PS1-3. Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.	<ul style="list-style-type: none"> • Geoboard • Tangrams 	
2-PS1-4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Changes in Matter • Movement of Heat 	
2-LS2 ECOSYSTEMS: INTERACTIONS, ENERGY, AND DYNAMICS		
2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow.	<ul style="list-style-type: none"> • Song: Plants Are Growing • Sun • Water 	<ul style="list-style-type: none"> • More to Explore Experiment: Light for Plants
2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.	
2-LS4 BIOLOGICAL EVOLUTION: UNITY AND DIVERSITY		
2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.	<ul style="list-style-type: none"> • Songs: Animal Bodies; Four Ecosystems • Books: Animal Bodies; Where in the World Would You Go Today? • Ecosystems • Animal Bodies • Animal Behavior 	<ul style="list-style-type: none"> • Learning Together: Places on Earth

NEXT GENERATION STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
2-ESS1 EARTH'S PLACE IN THE UNIVERSE		
2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly.	<ul style="list-style-type: none"> • Songs: The Four Seasons; Rock Cycle • Books: That's What I Like: A Book About Seasons; Whatever the Weather; Fossils Under Our Feet • Rock Cycle • Fossils • Spring • Summer • Fall • Winter • Water 	<ul style="list-style-type: none"> • More to Explore Experiment: Rocks
2-ESS2 EARTH'S SYSTEMS		
2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.	Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.	
2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.	<ul style="list-style-type: none"> • Songs: Water; Precipitation; Water Is All Around • Water Sources • Water • Water Cycle • Care of Water • Oceans 	
2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.	<ul style="list-style-type: none"> • Songs: Water; Uses of Water; Precipitation; Water Is All Around • Water Sources • Water • Water Cycle • Care of Water • States of Water • Heat Changes Water 	

NEXT GENERATION STANDARDS	WATERFORD DIGITAL RESOURCES	WATERFORD TEACHER RESOURCES
K-2-ETS1 ENGINEERING DESIGN		
<p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p>	<ul style="list-style-type: none"> • Song: Inventing • Books: Inventions All Around; I Want to Be a Scientist Like Wilbur and Orville Wright • Inventions 	<ul style="list-style-type: none"> • More to Explore Experiment: Recycling; Simple Machines
<p>K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p>	<p>Waterford encourages everyone to have writing, drawing, and art materials available for children's creations.</p> <ul style="list-style-type: none"> • Book: How Did the Chicken Cross the Road? • Simple Machines 	
<p>K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<ul style="list-style-type: none"> • Book: Warm Soup for Dedushka • Heat Movement • Movement of Heat • Heat Experiment 	<ul style="list-style-type: none"> • More to Explore Experiment: Evaporation

PRE-MATH & SCIENCE

Math Books

One Day on the Farm; Two Feet; Look for Three; Four Fine Friends; Grandpa's Great Athlete: A Book About 5; Hide and Seek Six; Just Seven; Eight at the Lake; 9 Cat Night; Ten for My Machine; The Search for Eleven; The Tasty Number Twelve; Thirteen in My Garden; Fourteen Camel Caravan; Fifteen on a Spring Day; Dinner for Sixteen; The Seventeen Machine; Eighteen Carrot Stew; Nineteen Around the World; Twenty Clay Children; Poor Wandering 1; Snowy Twos Day; 1, 2, 3, 4 in the Jungle; Give Me 5; Suzy Ladybug; 7 Train; 8 Octopus Legs; Highway 9; 10 Astronauts; When I Saw 11; I Love the Number 12; 13 Clues; 14 Camels; Fun 15; 16 Ants; Counting to 17; 18 Carrot Stew; 19 Around the World; 20 Fingers and Toes

Science Books

That's What I Like: A Book about Seasons; I Want to Be a Scientist Like Jane Goodall; Mr. Mario's Neighborhood; Mela's Water Pot; I Want to Be a Scientist Like Wilbur and Orville Wright; Follow the Apples!; I Want to Be a Scientist Like George Washington Carver; Guess What I Am; Where in the World Would You Go Today?; Star Pictures; I Wish I Had Ears Like a Bat; Creepy Crawlers

Counting Songs

Asian Counting, Marching Band Counting, Flower Counting, Country Counting, Dixieland Counting, Funky Counting, Reggae Counting, Salsa Counting, Techno Counting, Bagpipe Counting, Counting on the Mountain

Number Songs

Count to 31; Hotel 100; Poor Wandering 1; Snowy Twos Day; 1, 2, 3, 4 in the Jungle; Give Me 5; Suzy Ladybug; 7 Train; 8 Octopus Legs; Highway 9; 10 Astronauts; When I Saw 11; I Love the Number 12; 13 Clues; 14 Camels; Fun 15; 16 Ants; Counting to 17; 18 Carrot Stew; 19 Around the World; 20 Fingers and Toes

BASIC MATH & SCIENCE

Math & Science Books

One More Cat; Can You Guess? A Story for Two Voices; I Want to Be a Scientist Like Carl Linnaeus; I Want to Be a Scientist Like Antoni van Leeuwenhoek; Whatever the Weather; I Want to Be a Mathematician Like Sophie Germain; Water Is All Around; Mr. Romano's Secret: A Time Story; A Seed Grows; How Long is a Minute?; Marty's Mixed-up Mom; I Want to Be a Scientist Like Louis Pasteur; Pancakes Matter; Jump Rope Rhymes; Facts About Families; Fifteen Bayou Band; Hooray, Hooray for the One Hundredth Day!; Symmetry and Me; Animal Bodies; Everybody Needs to Eat; The Circus Came to Town; I Want to Be a Mathematician Like Thales; Bugs for Sale; Heads or Tails; Your Backyard; The Birds, the Beasts and the Bat; Halves and Fourths and Thirds; We All Exercise; Circus 20; Red Rock, River Rock; Painting by Number; I Want to Be a Scientist Like Joanne Simpson; Navajo Beads; Where in the World Would You Go Today?; I Want to Be a Scientist Like Wilbur and Orville Wright

FLUENT MATH & SCIENCE

Math & Science Books

The Snow Project; Chloe's Cracker Caper; What Sounds Say; Fossils Under Our Feet; The Boonville Nine; I Want to Be a Scientist Like Alexander von Humboldt; I Want to Be a Scientist Like Marie Curie; I Want to Be a Scientist Like Stephen Hawking; George and Jack; The Old Maple Tree; A Dinosaur's First Day; I Want to Be a Scientist Like Isaac Newton; My Family Campout; I Want to Be a Scientist Like Thomas Edison; Warm Soup for Dedushka; How Did the Chicken Cross the Road?; Inventions All Around; The Beginning of Numbers; I Want to Be a Mathematician Like Ada Byron Lovelace; Lightning Bells; Tyrannosaurus X 1; Halves and Fourths and Thirds; Navajo Beads; Red Rock, River Rock; I Want to Be a Mathematician Like Srinivasa Ramanujan; The Fraction Twins; Yangshi's Perimeter; I Want to Be a Mathematician Like Archimedes; Birds at My House; Painting by Number; The Fable Fair



SUPPORT

Professional Services offers a continuum of customizable services. Learn more [here](#).

CONTINUAL DEVELOPMENT

As a nonprofit research institute, Waterford.org is continually developing resources with the latest research findings. Please note that this correlation is accurate as of the date on the cover.

SPANISH FAMILY ENGAGEMENT RESOURCES

All Waterford books and many of the resources available to families at mentor.waterford.org can be found in Spanish or with Spanish support.

SONGS

Beginning Math Songs

Odd Todd and Even Steven; Salsa Counting; On the Bayou—Addition; Subtract Those Cars; More Than, Fewer Than; A Nice Addition; Marching Band Counting; Doubles 1-5; Multiply by 0

Nursery Songs and Rhymes

Rhyming Words; A: The Apple Tree; B: Bluebird, Bluebird; C: Pat-a-Cake; D: Hey Diddle, Diddle; E: One Elephant Went Out to Play; F: The Farmer in the Dell; G: Ten Little Goldfish; H: All the Pretty Little Horses; I: Mother, Mother, I Am Ill; J: Jack and Jill; K: Three Little Kittens; L: Mary Had a Little Lamb; M: Little Miss Muffett; N: I Touch My Nose Like This (Spanish); O: Polly, Put the Kettle On; P: This Little Pig; Q: Quack, Quack, Quack; R: Little Rabbit (Chinese); S: Eensy, Weensy Spider; T: Tortillas, Tortillas (Spanish); U: The Bus; V: My Valentine; W: Wee Willie Winkie; X: A-hunting We Will Go; Y: Yankee Doodle; Z: The Zulu Warrior

Beginning Reading Songs

Comma, Comma, Comma; Homophone Monkey; Antonym Ant; Apples and Bananas; Old MacDonald's Vowels; ABC Show and Tell Sounds; ABC Tongue Twisters; ABC Picture Sounds; Sheep in the Shadows; C-K Rap; S Steals the Z; Blends; Blicky Licky Land; Apostrophe Pig; Capital Letters—Days; Chip Chop; Adjectives Describe; Lazy Letter Q; Nouns; Verbs; Adverbs; Irregular Verbs; Preposition Ship; Verbs that Link; Consonants; Pronouns, Sneaky Magic E; Silent Letters—G-H; Silent Letters—W; Drop Magic E; Bossy Mr. R; P-H and G-H Say Fff; Schwa Sound; Double the Fun; Strange Spelling; More Than One; Reading Detective—Peek at the Story

Many of these songs are available on the [Waterford.org YouTube channel](https://www.youtube.com/channel/UC...).

WEEKLY HOMELINK NEWSLETTERS

Weekly newsletters (28 in all) are available for teachers to share with families. The newsletters explain what children are learning during the week and provide resources and activities to involve families.

MATH HOMELINK NEWSLETTERS

Match, Position, Shapes, Counting, Patterns Sort, Size, Number Sense (1-10), Order (1-10), Count On, Measurement (length), Count Down, Addition (10), Numbers 11-15, Numbers 16-20

SCIENCE HOMELINK NEWSLETTERS

The World Around Us (5 senses), Living Things (living v. non-living), Plants, Vertebrates, Invertebrates, The Sky Above Us (sun, moon, stars), Our Earth (recycle, ecosystems), How it Works (push/pull, solid/liquid, magnets, materials)

READING HOMELINK NEWSLETTERS

Alphabet Knowledge

Comprehension and Vocabulary

Sum Up: Remember Order, Sum Up: Remember Details, Peek at the Story, Guess and Check, Connect to Me, Build Knowledge

Readiness Skills Letters

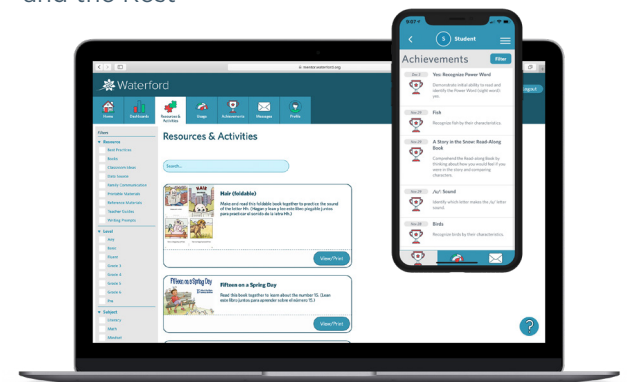
Naming Parts of the Body; First, Next, Last; One-to-One Correspondence; Opposites; Look at Details (identify same and different)

Phonological Awareness Letters

What Is Rhyming?, Which Words Rhyme?, Sentences Are Made Up of Words, Making Compound Words, Breaking Compound Words, What Is a Syllable?, Put Syllables Together to Make Words, Break Words into Syllables, The First Sound in a Word, Words with the Same First Sound, Making Words from First Sounds and the Rest

WATERFORD MENTOR

Waterford Mentor is a secure website where families can log in to see their child's usage and learning achievements. Waterford families also receive short messages with ideas on how to engage in their child's learning and have access to hundreds of resources and activities.



Waterford Mentor is available online and in the Mentor app (for iOS and Android).