

SKILLS TAUGHT

Waterford Early Learning Math Curriculum

Students begin with an assessment and are placed in the sequence based on their strengths and needs.

OVERVIEW	PRE-MATH	BASIC MATH	FLUENT MATH
NUMBERS & CARDINALITY Teaches number recognition, place value, counting, and arithmetic computation.	- Recognize, order, and write numbers 0 through 20 - Order, count, and sequence numbers to 100 by ones and tens - Use strategies to compare group size (more than, less than, or equal to)	- Read, write, and count numbers up to 100 - Learn place value of 2-digit numbers, including 2-digit number comparison - Learn and use keypad - Skip counting - Explore patterns and sequences of numbers	- Understand odd and even numbers - Understand place value of 3-digit numbers, including comparison of two 3-digit numbers - Use advanced skip counting - Understand patterns and sequences of numbers - Introduce rounding to tens
OPERATIONS & ALGEBRAIC THINKING Teaches arithmetic computation.	- Use objects, drawing, etc., to represent addition and subtraction - Add and subtract within 10, including solving word problems - Fluently add and subtract within 5 - Introduce place value of 2-digit numbers	- Solve word problems up to 20 - Apply commutative and associative properties of addition - Understand the relations between addition and subtraction - Solve addition and subtraction problems within 20 - Fluently add and subtract within 10 - Add 2-digit and 1-digit numbers with and without regrouping - Add three 1-digit numbers - Subtract 2-digit numbers with regrouping	- Solve word problems within 100 - Fluently add 2-digit numbers - Use repeated addition as a strategy to introduce multiplication - Add three 2-digit numbers with regrouping - Subtract 3-digit numbers with regrouping - Fluently add and subtract 3-digit numbers without regrouping - Explain addition and subtraction strategies - Understand beginning division
MEASUREMENT & DATA Develops a foundational understanding of measurement, time, and money. Prepares students to analyze data.	- Compare, classify, and describe measurable attributes of objects - Use digital and analog clocks to tell time to the hour - Identify coins and their value	- Use digital and analog clocks to tell time to the half hour - Use nonstandard units to measure length - Represent data through tally marks, graphs, and Venn diagrams - Identify sums of money and coin value	- Measure and estimate using standard units of length - Use number lines to represent whole numbers - Use digital and analog clocks to tell time to the minute - Solve word problems using money - Represent data through picture graphs, and bar graphs
GEOMETRY Teaches properties of shapes, positioning, and the identification of parts of regions or groups.	- Identify basic shapes regardless of their orientation and environment - Create composite shapes - Learn about shape positioning - Understand similarities and differences in 2- and 3-dimensional shapes	- Partition shapes and describe their parts - Create composite shapes - Learn to use positioning terms - Identify the line of symmetry and create symmetrical figures	- Partition shapes into equal parts (up to 1/12) - Find the perimeter of shapes - Learn to identify similar figures

SKILLS TAUGHT

Waterford Early Learning Science Curriculum

OVERVIEW	PRE-SCIENCE	BASIC SCIENCE	FLUENT SCIENCE
SCIENCE AS INQUIRY Provides context and hands-on experiences using the scientific method.	• Scientist biographies • Science investigation • Observe a simple system over time	• Scientist biographies • Science tools • Science experiments	• Scientist biographies • Science experiments
PHYSICAL SCIENCE Develops understanding of matter and materials, force, and energy.	• Materials, solids, and liquids • Push/Pull • Magnets	• Solid, liquid, gas • States of water • Properties of gravity	• Matter • Simple machines • Light • Electricity • Heat • Sound
LIFE SCIENCE Develops understanding of living things: plants, animals, and ecosystems.	• Living and nonliving • Plant or animal • Labeling plants • Categorizing animals • Ecosystems	• Food chains • Respiration • Function and use of plants • Classify animals • Ecosystems	• Traits of living things • Plant life cycle and growth • Animal life cycle and growth • Social insects
EARTH & SPACE SCIENCE Develops understanding of astronomy, meteorology, seasons, air, hydrology, and geology.	• Sun, moon, constellations • Seasons • Water and clouds	• Earth • Weather • Air • Water • Rocks	• Sun, moon, earth • Moon patterns • Water cycle • Fossils • Dinosaurs • Rock cycle • Soil
PERSONAL & SOCIAL PERSPECTIVES Develops understanding of environment, conservation, health, safety, observation, and inventions.	• Pollution and recycling • Five senses	• Uses of water • Weather affects people and animals • Care of earth, air, and water • Lightning safety • Health: germs, exercise, rest, teeth, and food	• Natural resources • Inventions

SCOPE & SEQUENCE

Waterford Early Learning Math and Science Curriculum Index Map

This visual representation provides an overview of skills students encounter as they move through Waterford.

SKILL	ENCOUNTERED DURING LEVEL(S)	APPROXIMATE LOCATION					
		PRE M&S 1	PRE M&S 2	BASIC M&S 1	BASIC M&S 2	FLUENT M&S 1	FLUENT M&S 2
NUMBERS & CARDINALITY							
Number Recognition	P M&S 1-B M&S 1						
Counting and Sequencing	P M&S 1-F M&S 2						
Place Value	B M&S 2-F M&S 2						
OPERATIONS & ALGEBRAIC THINKING							
Addition	P M&S 1-F M&S 1						
Subtraction	P M&S 2-F M&S 2						
Fact Families	P M&S 2-F M&S 2						
Logic	B M&S 2						
Multiplication	F M&S 2						
Division	F M&S 2						
MEASUREMENT & DATA							
Measurable Attributes	P M&S 1-F M&S 2						
Classification	P M&S 1-P M&S 2						
Time & Money	P M&S 2-F M&S 2						
Data	B M&S 1-F M&S 2						
GEOMETRY							
Shapes	P M&S 1-F M&S 1						
SCIENCE							
Earth and Space Science	P M&S 2-F M&S 2						
Life Science	P M&S 2-F M&S 2						
Physical Science	P M&S 2-F M&S 2						
Science as Inquiry	P M&S 2-B M&S 2						
Science in Personal and Social Perspectives	P M&S 2-F M&S 2						

P M&S = Pre Math & Science

B M&S = Basic Math & Science

F M&S = Fluent Math & Science