

Grade	Reading	Math
K1	<p>OWL Curriculum</p> <p>Everyone wants a classroom that works together cooperatively, purposefully, and peacefully. Getting there requires time, effort, and intentional teaching. The first three weeks of school is the foundation for a successful year by establishing a positive, supportive learning climate. Young children will have varying levels of experience being in a group. But this will be everyone's first experience of being in your classroom. Teach them every skill they will need to be successful---from sitting in a circle to solving conflicts to washing their hands. It is a wise investment with continuous returns!</p> <p>Unit 1: Family</p> <p>In this 5-week unit, children will be exploring and talking about families and the many different ways family members relate to and help one another.</p> <p>Unit 2: Friends</p> <p>Children explore the concepts of friendship, how to be a good friend, and ways to resolve conflicts with friends.</p> <p>Unit 3: Wind and Water</p>	<p>Building Blocks</p> <p>Building Blocks is a research-based curriculum aligned with MA pre-k curriculum frameworks that develops children’s early mathematical understanding through whole group, small group and hands-on center activities, structured around learning trajectories. Trajectories describe levels of mathematical development in the areas of counting, comparing and ordering, recognizing and subitizing, composing numbers, adding and subtraction, measuring, recognizing and composing geometric shapes, and patterns.</p> <p>The curriculum “spirals”, so that children revisit key concepts repeatedly throughout the year, with each new encounter building on previously constructed knowledge.</p> <p>Whole group lessons are outlined in the Clipboard Directions. Small Groups occur daily and teachers use Small Group Recording Sheets to determine where children are on the trajectories. Building Blocks center activities can be incorporated into Center Time or implemented in a separate Hands-On Math Center Time.</p> <p>Additionally, children benefit from daily mathematical experiences woven throughout classroom routines, such as a Counting Jar, taking attendance, and transitions.</p>

In Unit 3, children continue to develop their understanding of the concepts related to interpersonal interactions and extend the skills from units 1 and 2, particularly non-fiction writing.

Unit 4: The World of Color

In Unit 4, children explore the world of color and the colors in their world. They learn about the functionality of color: color communicates information & ideas and is an identifying feature in art and nature.

Unit 5: Shadows/Reflections

In Unit 5, Shadows and Reflections, children explore the properties and aesthetics of light, as well as the ways light is beneficial to people and animals.

Unit 6: Things that Grow

In Unit 6, Things That Grow, children synthesize skills and concepts they have learned during the previous five units as they explore the life cycle and learn how both plants and animals grow and develop.

K2	<p>Focus On K2</p> <p>Kindergarten students learn through our Focus on K2 curriculum. In the BPS, we use the term K2 instead of kindergarten, referring to our five-year-old students. Focus on K2 was written to help teachers promote children’s creativity and their abilities to collaborate, communicate and think critically. It was written to develop essential literacy and numeracy skills. It was written to connect children with their city. It was written to give our K2 students the adventure in learning they deserve.</p> <p>Unit 1 - Our Community</p> <p>For many children, the kindergarten year is their first experience of being in a group beyond their family. If that group becomes a community that cares about each other and supports each other emotionally as well as intellectually, the school experience is a more positive one for children. A supportive learning community creates things together, gives each other feedback on their work, and raises and solves problems as a group. In this first unit of study, Our Community, the goal is for children and teachers to build relationships and form the foundation for a strong, interdependent community of learners, developing shared dispositions, language, and habits that will grow throughout the year. When children are part of a</p>	<p style="text-align: center;"><i>K2 Unit Summaries</i></p> <p><i>Unit 1: Counting People, Sorting Buttons</i></p> <p>Classroom Routines and Materials</p> <p>This unit introduces the processes, structures, and materials that form the basis of math instruction throughout the year and establishes the mathematical community. It also introduces the Classroom Routines that develop and reinforce concepts and ideas in the Number and Operations, Data, and Geometry strands of Investigations.</p> <p><i>Unit 2: Counting Quantities, Comparing Lengths</i></p> <p>Counting and Measurement 1</p> <p>This unit focuses on connecting number names, numerals, and quantities; counting and developing visual images of quantities up to 10; comparing and ordering two or more amounts; and describing and measuring the length of objects by direct comparison. Students develop strategies for accurately counting quantities up to 10 as they create counting books and do activities and play games that involve counting and counting out sets of up to 10. Students compare sets to determine which has more and directly compare the length of objects to determine which is longer.</p>
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strong community, they are better poised to confront challenges that they will encounter in school and beyond.

Unit 2 - Animals & Habitats

Kindergarteners are naturally drawn to learning about animals. They tell and enjoy stories filled with animal characters and are curious to learn information about animals as well. They might have pets at home or see animals in their communities – a dog out for a walk, a squirrel in a tree, or ants on the sidewalk. In *Animals and Habitats*, this natural curiosity opens a door to deep learning about animals both familiar and unfamiliar to kindergarteners. Building off the previous unit, *Our Community*, children continue to explore concepts of living in a community, working with *Beautiful Stuff*, and *Storytelling/Story Acting*. Looking ahead, the concepts that children develop about animals and their habitats during this unit will come into play again in *Our Earth*, when the scope widens to consider people as stewards of the earth.

Unit 3 - Construction

People construct; one of the defining characteristics of humanity is that we make. We make structures, institutions, rules, ideas, and works of art. Kindergartners are also makers. A defining characteristic of kindergarten-aged children is their initiative. Children may be particularly intrigued with structures and places they make for themselves: forts, homes, secret

Unit 3: Make a Shape, Fill a Hexagon

2-D Geometry

The focus of this unit is on identifying, describing, and comparing attributes of 2-D shapes, naming shapes, considering the features of specific shapes (e.g., a triangle has three sides and three vertices), and composing and decomposing shapes from and into smaller shapes. Students look for 2-D shapes in their environment and use materials such as pattern blocks, Geoboards and clay to make shapes. They use paper shapes to make a mural, fill puzzle outlines using pattern blocks, and discuss different ways to compose a hexagon using pattern blocks shapes. Throughout the unit, students hear and use positional language to describe the location of the shapes they are working with.

Unit 4: Collect, Count, and Measure

Counting and Measurement 2

The focus of this unit is on counting and representing sets of up to 15 objects, applying counting skills by using multiple units to measure and compare lengths, decomposing numbers in many different ways, and beginning to make sense of the operations of addition and subtraction. Students count as they measure and

hideouts, and the like. They also have unique and valuable perspectives about what makes structures attractive, useful, and fair. The threads of community and citizenship continue from previous units. Themes of collaboration and group work reemerge from Unit 1 (Community), as you now guide children to consider how people collaborate in constructing. And from Unit 2 (Animals & Habitats), the focus on protecting and caring for animals is now extended to consider issues of fairness, equity, and access that arise when something is constructed.

Unit 4 - Our Earth

Our kindergartners will inherit a complex world where scientific, environmental, social, and moral issues intertwine. In order to meet the opportunities and challenges of the 21st century, our children need an equally complex set of skills and abilities.

During the Our Earth unit, children explore the natural world by investigating and researching the earth's properties, focusing on its surface and plant life. Responsibility, sustainability, and stewardship for the environment, as individuals and as members of a community, are explored in literature, discussions, activities, and a Capstone Project.

The unit begins by fostering children's intellectual and emotional connections with nature, as explored in Animals and Habitats. The second phase focuses on sustainable systems that reduce human impacts on the earth, such as recycle/reuse and food production/urban agriculture. The final phase engages the

compare the lengths of shoes, strips of tape, and other objects. They act out story problems and play games that involve counting, comparing, and finding the total when a small amount is added or taken away. Students investigate combinations of numbers as they arrange tiles and explore different ways a set of two-color counters can land. They consider how notation can represent these situations.

Unit 5: Build a Block, Build a Wall

3-D Geometry

The focus of this unit is on identifying, describing, and comparing attributes of 3-D shapes (e.g., a cube has 6 congruent faces), naming 3-D shapes, constructing 3-D shapes, and composing and decomposing 3-D shapes from and into smaller shapes. Students look for 3-D shapes in their environment and describe and compare the shapes they find. They make 3-D shapes using connecting cubes, clay, and Geoblocks and think about how shapes are the same and different.

Unit 6: How Many Now?

Addition, Subtraction, and the Number System 1

The focus of this unit is on counting sets of up to 20 objects; decomposing the numbers to 10 in a variety of

children as citizens, first introduced in Our Community, who can contribute to our earth. Drawing on the design process of Construction, children generate ideas for sustainable choices in their classrooms and school communities.

ways (e.g., 7 can be seen as 5 and 2 or as 3 and 2 and 2); using notation to describe addition and subtraction situations; finding and exploring combinations of a number; and solving addition and subtraction story problems. A variety of contexts are used to help students develop accurate counting strategies including Inventory Bags, measuring, games, and the Counting Jar. Students revisit addition and subtraction situations, including story problems, which they model, solve and represent on paper.

Unit 7: How Many Noses? How Many Eyes?

Modeling with Data

The focus of this unit is on describing attributes of objects and data, and using this information to sort, classify, count, order, compare, and represent data, and to use this data to model real-world problems with mathematics. It also extends work with counting by 1s and introduces students to the counting sequences of 2s and 10s. Students sort people and objects according to specific attributes, and count and compare the number in each group. They conduct their own surveys, solve problems using attendance data, and count the number of people, noses, and eyes in a variety of ways.

		<p><i>Unit 8: Ten Frames and Teen Numbers</i> Addition, Subtraction, and the Number System 2</p> <p>The focus of this unit is on extending the counting sequence to 100, including counting from numbers other than 1 and by 10s, adding and subtracting in a variety of contexts, and making sense of the teen numbers as a group of ten ones and some number of leftover ones. Students solve story problems, relate a problem to the equation it represents, and make up and solve stories for given expressions. Students develop fluency with addition and subtraction within 5, find the complement of 10 when given one addend, and work with the teen numbers in ways that highlights that those numbers are composed of ten ones and some number of ones. Students use their hands, and then a pan balance, to directly compare the weight of two objects.</p>
1	<p>Focus On First</p> <p>Boston Public School’s Focus on First curriculum is an integrated, content-based approach to literacy. To reflect today’s world and children’s 21st century experiences, the overarching theme of the curriculum is globalization. Over the course of the year, from many angles, children and educators study today’s global and changing world, learning essential first</p>	<p>Grade 1 - Unit Summaries</p> <p><i>Unit 1: Building Numbers and Solving Story Problems</i> Addition, Subtraction, and the Number System 1</p> <p>This unit focuses on counting and comparing quantities, connecting counting to the operations of addition and subtraction, and developing an understanding of and strategies for solving addition and subtraction problems</p>

grade literacy skills along the way. Children dig deeply into content knowledge and express their developing understandings through diverse means. They integrate, deepen, and expand their understandings of what it means to be a global citizen and a citizen of Boston.

Unit 1 -Community

In this unit, children learn about relational connections, within and across communities, including families, classrooms, and neighborhoods—and the influence of these connections on both the individual and the group.

Unit 2 - Animals

Building upon Unit 2 of Focus on K2, children will learn about how animals are different from one another and what makes them different. Children will also learn about how animals are the same in certain ways. During this unit, children will have the opportunity to think and talk about how animal differences can help them survive in their habitats as well as ways that communities and scientists can partner together to protect animal habitats.

Unit 3 - Resources

In this unit, children learn about the ways that people around the world get what they need, and how the exchange of goods

via story problems and games. Because it is the first unit, it also introduces the processes, structures, and materials that form the basis of math instruction throughout the year, and establishes the mathematical community. As part of this work, several yearlong classroom routines are introduced that offer regular practice with counting and combining, number composition, developing visual images of quantities, collecting and analyzing data, and working with time.

Unit 2: Comparing and Combining Shapes

2-D Geometry

The focus of this unit is on observing and describing defining attributes of 2-D shapes, using those attributes to build, compare, and sort 2-D shapes, and composing and decomposing 2-D shapes. Students identify and describe familiar shapes in their environment. They describe, name, and compare attributes of 2-D shapes, particularly triangles and quadrilaterals. Students find combinations of shapes that fill a region, and investigate different ways to compose a shape from, or decompose a shape into, smaller shapes.

Unit 3: How Many of Each? How Many in All?

and services affects people's lives and promotes the interconnectedness of our global community.

Unit 4 - Technologies' Inventions and Innovators Sound and Light

Technology affects us all. In this unit, children think about how new ideas and products have changed lives, and learn about some of the inventors who have been behind the world's advancements. Inspired by fiction, non-fiction and poetry, students have the opportunity to reflect on life today versus life long ago, and think through the kinds of inventions that made daily life for their parents and grandparents very different than it is for them. Among other conversations, we challenge the children to discuss how discoveries often occur because people are observing carefully and thinking about ways to improve daily life, and we also challenge them to discuss whether new inventions improve life, or whether old ways of doing things have benefits, too.

Addition, Subtraction, and the Number System 2

This unit focuses on counting on/back as a strategy for adding/subtracting; composing and decomposing numbers into two or more parts and playing games that involve an unknown change; adding more than two numbers; expanding students' understanding of addition and subtraction notation, in particular the meaning of the equal sign; and counting and comparing larger quantities. Number composition and beginning place value is also a focus. As they use Ten Frame cards to build numbers to 30, students shift to seeing a group of ten ones as one ten and think about how many "ten cards" they need to represent a given number.

Unit 4: Fish Lengths and Fraction Rugs (14 Sessions)

Measurement and Fractions

This unit focuses on developing accurate techniques for linear measurement, solving comparison problems about length, and on ideas about time and fractions as equal parts of a whole. Students indirectly compare the lengths of objects, measure the lengths of various objects using several different units, including inch tiles, and compare two lengths to determine how much longer or shorter one object is than the other. They observe and describe shapes (circles, squares, rectangles) that are (and are not)

divided into halves and fourths, and partition shapes to show halves and fourths. Students achieve fluency with telling time to the hour, and are also introduced to telling time to the half hour.

Unit 5: Number Games and Crayon Problems (23 Sessions)

Addition, Subtraction, and the Number System 3

This unit focuses on developing fluency with addition and subtraction within 10, including the 2-addend combinations of 10, understanding of the meaning of the equal sign as a symbol of equivalence, and deepening students' understanding of addition and subtraction through problems and games that involve finding an unknown addend or an unknown change. Students continue to compose and decompose 2-digit numbers and to represent them as the sum of multiples of ten and some number of ones (e.g., $22 = 20 + 2$), reinforcing foundational ideas of number composition and place value.

Unit 6: Would You Rather Be an Eagle or a Whale?

Modeling with Data

This unit focuses on collecting, recording, representing, describing and comparing data in two and three

categories, and on conducting data investigations. As students engage in their own surveys, they use data to model real-world problems with mathematics. Story problems about survey data provide a context for solving comparison problems with the difference, the bigger amount, or the smaller amount unknown.

Unit 7: How Many Tens? How Many Ones?

Addition, Subtraction, and the Number System 4

This unit focuses on counting by numbers other than 1, with an emphasis on groups of 10; adding and subtracting 10 from a 2-digit number, and subtracting a multiple of 10 from a multiple of 10; and on representing 2-digit numbers with tens and ones and using those models to add within 100. Students use contexts such as fingers on students, dots on Ten Cards, and cubes in towers of 10 to represent numbers as tens and ones, to determine a quantity presented as tens and ones, and to compare and add numbers within 100, including situations with more than 10 ones.

Unit 8: Blocks and Buildings (9 Sessions)

3-D Geometry

The focus of this unit is on observing, describing, comparing, and building 3-D shapes and on developing

		<p>vocabulary for naming and describing defining attributes of 2-D and 3-D shapes. As they describe, draw, and build with Geoblocks, students identify and compare attributes of 3-D shapes, compose and decompose 3-D shapes, and explore the relationship between 2-D and 3-D shapes. They also demonstrate fluency with telling time to the half hour.</p>
2	<p>Exploration Unit – In this unit, children are introduced to the concept of learning through exploring. The unit combines both fiction and nonfiction stories. The children participate in a culminating project based on one of the nonfiction stories included in this unit.</p> <p>Working Together -In this unit, children explore the concept of working together through a variety of fictional texts which include fantasy as well as folk tale. Students will participate in a close read of one of the stories included in the unit. The expectations of a close read are for students to use higher level thinking to analyze the story using evidence to support their thinking.</p>	<p style="text-align: center;"><u>Grade 2 Unit Summaries</u></p> <p><i>Unit 1: Coins, Number Strings, and Story Problems</i> Addition, Subtraction, and the Number System 1</p> <p>This unit focuses on adding and subtracting single-digit numbers, focusing particularly on adding numbers in any order; shifting from counting by 1s to counting by groups, particularly groups of tens and ones, which lays the foundation for students’ work with place value and the base-10 number system; and developing and refining strategies for solving a variety of addition and subtraction problems. As the first unit in Grade 2, it also introduces the mathematical tools, processes, and ways of working that will be the foundation of math class. As part of this work, students are introduced to several year-long classroom routines that offer regular practice with composing and decomposing numbers, developing visual</p>

<p>Creative Ideas- In this unit, children are exposed to a variety of texts which introduce how creative ideas can offer a solution to a problem. The stories include fiction, folktale, and a biography. The biography in this unit serves as an introduction to African-American History Month. Students participate in a culminating research project.</p> <p>Our Changing World – In this unit, children focus on how things change and how things stay the same. The stories in this unit include fiction, expository nonfiction, and narrative nonfiction. Students will compare and contrast two different life cycles as well as participate in a close read selection.</p> <p>Responsibility- In this unit, children focus on what it means to be responsible.</p> <p>The stories in this unit include expository nonfiction, poetry, and fantasy.</p> <p>Traditions – In this unit, children focus on traditions of various cultures. As a culminating activity the children participate in a themed day celebrating traditions of what it is like to live like a cowboy/cowgirl.</p>	<p>images of quantities, addition and subtraction facts, telling time, and counting, collecting, and analyzing data.</p> <p>Unit 2: Attributes of Shapes and Parts of a Whole</p> <p>Geometry and Fractions</p> <p>The focus of this unit is on observing and describing defining attributes of 2-D and 3-D shapes (e.g., number and shape of faces, number and length of sides, and number of angles and vertices), and using those attributes as they sort, construct, draw, and compare shapes. This unit also develops ideas about equal parts of a whole, focusing specifically on partitioning and describing halves, fourths, and thirds of one whole and recognizing that the same equal part of a whole (e.g. one half of a square) can be different shapes.</p> <p><i>Unit 3: How Many Stickers? How Many Cents?</i></p> <p>Addition, Subtraction, and the Number System 2</p> <p>This unit focuses on the place value of 2-digit numbers and operating on those numbers within 100. Students come to see 100 as ten 10s and multiples of 100 as being made up of some number of hundreds. They solve a variety of types of story problems (e.g. put together/take apart with one or both addends unknown, add to and take from with result unknown, problems with an</p>
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<p>Multi-Cultural Fairytale Unit - The Fairy Tale Unit encompasses fairy tales from all over the world. The unit aims to expose students to the diversity of existent literature by reading a variety of fairy tales from all over the world. This unit will encourage students to point out similarities and differences in similar fairy tale books. This unit also shows students how different cultures tell stories.</p> <p>Writing – Children explore various traits of writing throughout the year. The writing program balances process with product. Grammar and word work are components of the writing process. Writing Units throughout the year include: opinion writing, a personal narrative, and an informative writing product.</p>	<p>unknown change or an unknown start). They play games that involve combining amounts to get to 100 or \$1. Work on fluency with addition and subtraction within 100 continues, with a focus on using known facts and knowledge of the operation. Students also identify, read, and write numbers to 500, and mentally add and subtract 10 to numbers in that range.</p> <p><i>Unit 4: Pockets, Teeth, and Guess My Rule</i></p> <p>Modeling with Data</p> <p>This unit focuses on sorting and classifying categorical data; ordering numerical data; and collecting and representing categorical and numerical data using a variety of representations: student-generated representations, picture graphs, bar graphs, Venn diagrams, cube towers, and line plots. Students describe the data, and discuss what the data tell them about the group surveyed. In doing so students develop the ability to model with data, aspects of their world.</p> <p><i>Unit 5: How Many Tens? How Many Hundreds?</i></p> <p>Addition, Subtraction, and the Number System 3</p> <p>This unit focuses on the place value of 3-digit numbers and operating on numbers within 100. Students come to see 100 as 10 tens and multiples of 100 as being made up of some number of hundreds. They solve a variety of</p>
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types of story problems (e.g., put together/take apart with one or both addends unknown, add to and take from with result unknown, problems with an unknown change or an unknown start). They play games that involve combining amounts to get to 100 or \$1. Work on fluency with addition and subtraction within 100 continues, with a focus on using known facts and knowledge of the operations. Fluency with addition within 100 is a benchmark in this unit. Students also identify, read, and write numbers to 1,000 and add and subtract 10 and 100 to numbers in that range.

Unit 6: How Far Can You Jump?

Linear Measurement

This unit focuses on developing strategies for accurately measuring length with nonstandard and standard units (e.g., craft sticks, cubes, inches, feet, yards, centimeters, and meters) and tools (e.g., inch-brick measuring tools, rulers, yardsticks, and meter sticks) and for considering the relationship between different units and tools (e.g., the larger the unit, the smaller the count will be).

Students represent measurement data on a line plot and also solve story problems that involve adding, subtracting and comparing lengths.

Unit 7: Partners, Teams, and Other Groups

Foundations of Multiplication

The focus of this unit is on working with equal groups as the foundation of multiplication by investigating even and odd numbers and by representing equal groups with arrays and tables.

Unit 8: Enough for the Class? Enough for the Grade?

Addition, Subtraction, and the Number System 4

This unit focuses on developing and achieving fluency with subtraction within 100, and on achieving fluency with addition and subtraction facts within 20, which students have been working on throughout the year. Students are also introduced to a new type of story problem—comparison problems with a smaller unknown. They end the year thinking about how the strategies they know and use for adding and subtracting 2-digit numbers translate to adding and subtracting 3-digit numbers, represented with place-value notation. Students also demonstrate fluency with time, work that has been happening all year long, ending the year telling time to the nearest five minutes, using A.M. and P.M.