



## Thoughtful Play Math Scope & Sequence

### The Approach

The Thoughtful Play math curriculum follows a research-based learning progression model.

Here is how we recommend you approach the units

- Adapt your pace based on where your child is at.
- Take your time. If your child is ready, utilize the extensions within each day.
- Spiraling is part of the learning progressions. Mastery happens over time.
  - If you feel your child needs more time or support through guided instruction, it is entirely okay to spend a few days on one lesson, or to revisit a prior lesson.
  - There is also review of skills embedded throughout the curriculum.
- This curriculum incorporates the important mathematical skills and concepts for Kindergarten. It aligns with math grade-level standards.

### Unit 1: Numbers & Number Sense

Overview:

This unit covers the foundational skills and concepts for numeracy. In this unit we build on previous understandings of rote counting to 100 and counting objects.

Skills & Concepts:

- Count to 100 by 1's
- Use one-to-one correspondence to count objects
- Estimate and count objects to 30
- Subitize to 6 (say how many without needing to count)
- Count-on by 1's from any number
- Identify and write numbers 0 to 10
- Count by 5's and 10's to 100

### Unit 2: Comparing, Ordering, & Measuring

Overview:

This unit covers sorting objects into categories and comparing, using greater than ( $>$ ), less than ( $<$ ), or equal to ( $=$ ). We also include putting numbers in order and making patterns. Finally, we work on comparing objects based on attributes that can be measured, and learn how to measure the length of an object.

Skills and Concepts:

- Sort objects into categories, create a frequency table, and compare
- Make comparisons using  $>$ ,  $<$ , or  $=$  symbols
- Determine which group has more or fewer items
- Put numbers in order from least to greatest
- Ordinal numbers
- Describe and compare objects based on measurable attributes (e.g., height, weight, length)
- Measure objects using non-standard units (e.g., paperclips) and standard units (e.g., rulers)
- Recognize and extend patterns, identify a missing part in a pattern



### Unit 3: Foundations of Addition

#### Overview:

This unit creates a solid entryway into addition. The lessons develop an understanding of the actions in addition word problems. It helps children conceptually understand addition and connects counting to addition, thereby advancing children's numeracy skills.

#### Skill and Concepts

- Word problems that involve "joining" and "combining"
- Model the action in addition word problems
- Connect counting to addition
- Explore the + sign, the = sign, and equations
- Add 1 or 2 more to any number 0 to 10
- Doubles (1+1, 2+2, 3+3, 4+4, 5+5, 6+6)
- Number pairs for numbers up to 6
- Adding 0 to any number

### Unit 4: Foundations of Subtraction

#### Overview:

This unit creates a solid entryway into subtraction. The lessons develop an understanding of the actions in subtraction word problems. It helps children conceptually understand subtraction and connects addition and subtraction, thereby advancing children's numeracy skills.

#### Skill and Concepts

- Word problems that involve "taking away" and "separating"
- Model the action in subtraction word problems
- Connect addition to subtraction
- Counting down from any number up to 10
- Subtraction facts up to 5
- One less and 2 less up to 10
- Subtraction problems that are equal to 0 (e.g.,  $2-2=0$ )

### Unit 5: Advanced Number Relationships

#### Overview:

This unit advances children's skill set with addition and subtraction. The unit builds flexibility and strategies around adding and subtracting, as well as accuracy and efficiency.

#### Skill and Concepts

- Composing numbers with 5 and some more
- Adding 3 & 4 to any number 0 to 7
- Subtracting 3 or 4 from any number up to 10
- Introduction to word forms of numbers
- Use concrete objects and/or make drawings to solve word problems
- Write equations to represent word problems
- Solve for an unknown in an addition problem
- Number pairs that make 7, 8, 9, & 10
- Explore the commutative property of addition ( $3+4=4+3$ ; order doesn't matter)



## Unit 6: Place Value

### Overview:

This unit begins with number recognition and writing numbers 11 to 20. There is emphasis on conceptual understanding of numbers 11 to 20 as 10 plus some more. This unit builds the foundation for understanding how the base ten number system works. This knowledge is key for accuracy with addition and subtraction later on.

### Skill and Concepts

- Review of number pairs that make 10
- Writing & recognizing numbers 11 to 20
- Exploring numbers 11 to 19 as “10 + some number of ones”
- Adding 3, 4, and 5 to numbers 10 to 17
- Adding doubles that result in a sum between 10 and 20
- Identifying the number of tens and ones in numbers
- Review of counting by 10’s
- Counting-on by 10’s from any number
- Recognize multiples of 10 (e.g., 10, 20, 30, etc)

## Unit 7: Geometry

Overview: This unit builds children’s foundational understandings of geometric figures. It emphasizes the use of children’s language to describe the characteristics of shapes. It offers an exploration into putting together and taking apart shapes to build spatial sense.

### Skill and Concepts

- Name shapes regardless of size, color, or position
- Identify objects in the environment using names of shapes
- Identify shapes as 2-dimensional or 3-dimensional
- Name 2-dimensional shapes: circle, square, rectangle, rhombus, trapezoid, pentagon, hexagon
- Name 3-dimensional shapes: sphere, cone, cylinder, cube
- Put together shapes to make other shapes
- Congruence & Symmetry
- Develop an understanding of halves and fourths

## Unit 8: Time & Money

Overview: In this unit children begin to learn how to tell time and develop an understanding of money, specifically change in the US currency.

### Skill and Concepts

- Develop an understanding of coins in the US currency (1¢, 5¢, 10¢, 25¢)
- Count by 1’s, 5’s and 10’s to answer questions about “How much money?”
- Understand how time is measured (seconds, minutes, hours)
- Understand how clocks work
- Begin to read an analog and a digital clock to the hour and half hour