**Math Background**

**Fractions**

**Doubles** In this unit, children prepare to learn about halves by first exploring doubles—both geometrically and numerically.

**Halves** Children then explore halves by finding half of a set of objects, using trial and error or any method of their own devising. In a similar way, they learn to find one fourth by identifying half of one half. They are eventually introduced to standard fraction notation and learn that $\frac{1}{2}$ means 1 of 2 equal parts.

**Symmetry** After exploring halves and fourths of sets, children discover halves and fourths of geometric shapes. This connects to symmetry and lines of symmetry.
Parts of a Dollar
In this unit, children extend their knowledge of fractions to include one half and one fourth of 100. They are then prepared to understand the quarter as one of four equal parts of a dollar, which is 25¢.

![Diagram of quarters showing 25¢, 50¢, 75¢, and 100¢]

Circle Graphs
In keeping with the main focus of this unit, children connect their knowledge of fractions to very simple circle graphs. These investigations include graphs showing halves and fourths of a quantity. Then children are exposed to more complex circle graphs and are asked to make some basic comparisons by using the data on the graph.

- **Crayons**
  - Ana: 3
  - Eric: 3

- **Cars**
  - red: 2
  - blue: 2
  - green: 2
  - yellow: 2

- **Balls**
  - baseballs: 2
  - footballs: 1
  - soccer balls: 1
**Time and Clocks**

**Time** In this unit, children explore the concept of time and units of time by engaging in activities for a specific time period. They also connect real-life activities to lengths of time.

“Clap your hands for 1 minute.”

**Clocks** Children are introduced to both digital and analog clocks and to standard time notation. They learn to tell time in whole and half-hours, using their understanding of half of a circle as an aid in visualizing the half-hour.

**Ordinal Numbers** As part of their exploration of time, children are introduced to ordinal numbers. They practice using ordinal numbers as they discuss daily activities and routines. Children also practice using ordinal numbers in the context of spatial position. While standing in line, children consider who is *first, second, third*, and so on.