

Mathematics Knowledge and Skills

[Music]

Teacher and Children: ♪ Days of the week... ♪

Narrator: The five elements of the Mathematics Knowledge and Skills domain are: Number Concepts and Quantities; Number Relationships and Operations; Geometry and Spatial Sense; Patterns; and Measurement and Comparison.

Teacher: Guys, how many days have we been in school so far?

Children: Three!

Teacher: Let's count it.

Teacher and Children: One, two, three.

Narrator: When we give young children opportunities to use math, it helps them make sense of their world. They learn that numbers have a sequence.

Girls: Three, four, five, six!

Narrator: Children learn that numbers represent quantities, like "how many" and "how much." Then they can compare quantities. Is this greater than, less than, or equal to? They learn how to create new numbers with operations like addition and subtraction. Circles and triangles, cubes and cones; with geometry, all kinds of shapes can be created and described. Children learn spatial sense, or the concept that something is up or down, in front or behind, over, under, or through. Patterns are arrangements of objects, shapes, colors...

Girl: Green, brown, green, brown.

Narrator: sounds, and movements. Being able to recognize and extend patterns helps children sort objects and predict sequences. Children can learn to measure length and weight and size with standard tools and nonstandard tools. And with those measurements, they can compare longer and shorter, lighter and heavier, and bigger and smaller. Math skills help children connect ideas, ask questions, and develop abstract thinking.