

Timelines for Math Out of the Box Modules

Fifth Grade

Following are timelines for each fifth grade module. The curriculum is designed so that the order of the modules can be changed to correlate with local curriculum and pacing guides. However, the concepts within a module should be taught sequentially. Lessons averaging 1½ hours each do not have to be finished in one day or at one sitting. Lessons can be separated between the phases of the learning cycle.

Engage—10 to 15 minutes

Investigate—30 to 45 minutes

Reflect—15 minutes

Apply—15 minutes

Many activities in the Apply phase can be completed at centers throughout the school day. An alternative plan is to schedule an Apply day after each subconcept using the activities to remediate skills and to challenge students.

Developing Number Concepts: Values and Variables, Module A

Lessons 1 to 8	Subconcept: Properties of numbers can be analyzed for patterns using a variety of representations.	8 to 12 days
Lessons 9 to 14	Subconcept: The base-10 number system and its place-value structure can be analyzed for patterns using a variety of representations.	6 to 10 days
Lessons 15 to 19	Subconcept: Meaning for addition and subtraction can be developed by constructing a variety of models and strategies.	5 to 9 days
Lessons 20 to 27	Subconcept: Meaning for multiplication and division can be developed by constructing a variety of models and strategies.	8 to 15 days
Lessons 28 to 30	Subconcept: Number relationships can be analyzed for patterns using a variety of representations.	3 to 4 days
Total		30 to 50 days

Developing Number Concepts: Values and Variables, Module B

Lessons 1 to 4	Subconcept: Factors and multiples can be determined using a variety of strategies.	5 to 6 days
Lessons 5 to 12	Subconcept: Meaning for fractions can be developed by constructing a variety of models.	10 to 14 days
Lessons 13 to 16	Subconcept: Meaning for percents can be developed by connecting fractions and decimals.	5 to 7 days
Lessons 17 to 19	Subconcept: Attributes of negative numbers can be analyzed, described, and modeled	5 to 6 days
Lessons 20 to 24	Subconcept: Basic concepts of probability and discrete mathematics can be applied to everyday experiences.	5 to 7 days
Total		30 to 40 days

Developing Algebraic Thinking: Steps and Distance

Algebra		
Lessons 1 to 3	Subconcept: Patterns can be analyzed and described.	3 to 4 days
Lessons 4 to 6	Subconcept: Rules can be represented with words and with variables.	3 to 5 days
Lessons 7 to 10	Subconcept: Functions can be represented in a variety of ways	4 to 6 days
Data Analysis		
Lessons 11 to 13	Subconcept: A plan to collect data can be developed.	3 to 4 days
Lessons 14 to 16	Subconcept: Data can be analyzed and described.	3 to 5 days
Lessons 17 to 20	Subconcept: A story can be told about the data.	4 to 6 days
Total		20 to 30 days

Developing Geometric Logic: Conjectures and Transformations

Lessons 1 to 5	Subconcept: Three-dimensional shapes can be analyzed and described.	5 to 7 days
Lessons 6 to 10	Subconcept: Subconcept: Attributes of two-dimensional figures can be identified and described.	5 to 7 days
Lessons 11 to 13	Subconcept: Conjectures about geometric properties can be made and tested.	3 to 5 days
Lessons 14 to 16	Subconcept: Movements of shapes can be analyzed and described.	3 to 5 days
Lessons 17 to 20	Subconcept: Conclusions can be drawn about the position and location of shapes.	4 to 6 days
Total		20 to 30 days

Developing Measurement Benchmarks: Tools and Time

Lessons 1 to 4	Subconcept: Attributes of length can be analyzed and described.	4 to 6 days
Lessons 5 to 10	Subconcept: Attributes of perimeter, area, and volume can be analyzed and described.	6 to 9 days
Lessons 11 to 15	Subconcept: Attributes of time and temperature can be analyzed and described.	5 to 8 days
Lessons 16 to 20	Subconcept: Attributes of capacity and weight can be analyzed and described.	5 to 7 days
Total		20 to 30 days