Illustrative Mathematics
LEARN MATH FOR LIFE

Grade 8 Block Schedule Guidance

Unit 5: Functions and Volume

Block	Original Lessons	Plan to Do	If Time Allows	Notes
1	Check Your Readiness Lesson 1 Inputs and Outputs	CYR 1.1 1.2 1.3* Lesson 1 Synthesis 1.4		The items in the Check Your Readiness assessment are not directly needed for Lesson 1, so the assessment could be given after the lesson.
2	Lesson 2 Introduction to Functions Lesson 3 Equations for Functions	2.1 2.2 2.3 Lesson 2 Synthesis 3.1 3.2* 3.3 Lesson 3 Synthesis 3.4	2.4 (optional)	The lessons in this block move from determining whether or not rules are functions to using equations to represent those functions. Note that both the Lesson 2 synthesis and the synthesis for Activity 3.1 introduce essential vocabulary and careful attention should be given to the discussions. The optional activity provides additional practice determining whether a rule is a function.
3	Lesson 4 Tables, Equations, and Graphs of Functions Lesson 5 More Graphs of Functions	5.1 4.2 4.3* 5.2 5.3 Lesson 5 Synthesis 5.4	4.1	These lessons ask students to interpret the meaning of graphs in various situations.

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4	Lesson 6 Even More Graphs of Functions Lesson 7 Connecting Representations of Functions Lesson 8 Linear Functions	7.1 6.2 6.3 7.2* 7.3 8.2* 8.3 Lesson 7 Synthesis 7.5	6.1 7.4 (optional) 8.1 8.4 (optional)	This collection of lessons uses different representations for the same functions and asks students to make connections among the representations. In addition to the questions from the Lesson 7 synthesis, ask students how they might be able to tell when a function is increasing or decreasing from each representation.
5	Lesson 9 Linear Models Lesson 10 Piecewise Linear Functions	9.1 9.2 9.3 Lesson 9 Synthesis 10.1 10.2* 10.3 Lesson 10 Synthesis 10.5	10.4 (optional)	These lessons focus on modeling data with linear functions and using the models to describe trends using the slope.
6	Mid-Unit Assessment	Flex MUA		It may be beneficial to use some time before administering the assessment to review material from the unit or work through any additional activities from the unit so far.

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7	Lesson 11 Filling Containers Lesson 12 How Much Will Fit?	11.1 11.2 11.3 12.1 12.2* 12.3 Lesson 12 Synthesis 12.4		In these lessons, students explore the volume of various shapes.
8	Lesson 13 The Volume of a Cylinder Lesson 14 Finding Cylinder Dimensions	13.1 13.2* 13.4 14.2 14.3 Lesson 13 Synthesis 13.5	14.1 13.3 (optional)	Students explore ways to calculate the volume of a cylinder, then use the volume to find missing dimensions. The optional activity provides further practice recognizing the dimensions of a cylinder using images of real objects.
9	Lesson 15 The Volume of a Cone Lesson 16 Finding Cone Dimensions	15.1 15.2* 15.3 Lesson 15 Synthesis 16.1 16.3* Lesson 16 Synthesis 16.5	16.2 (optional) 16.4	This block is similar to the previous, but using cones instead of cylinders. The optional activity is available if students need practice solving for the radius given the volume of a cone.

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10	Lesson 17 Scaling One Dimension Lesson 18 Scaling Two Dimensions	18.1 (optional) 17.2 (optional) 17.3 (optional) 17.4 (optional) 18.2 (optional) 18.3 (optional) Lesson 18 Synthesis 18.4 (optional)	17.1 (optional)	This optional block builds towards the volume of a sphere by considering how doubling a dimension affects volume.
11	Lesson 19 Estimating a Hemisphere Lesson 20 The Volume of a Sphere	19.1 19.3 20.2* 20.3 Lesson 20 Synthesis 20.4	19.2 20.1	Students work towards the formula for the volume of a sphere.
12	Lesson 21 Cylinders, Cones, and Spheres Lesson 22 Volume As a Function of . . .	22.1 21.3* 21.4 22.2 (optional) 22.3 (optional) Lesson 21 Synthesis 21.5	21.1 21.2 (optional)	The optional activities can be used to review representations of functions as well as to explore cubic functions.
13	End-of-Unit Assessment	EUA		

Unused cool-downs: 2.5, 4.4, 6.4, 8.5, 9.4, 11.4, 14.4, 15.4, 17.5 (optional), 19.4