

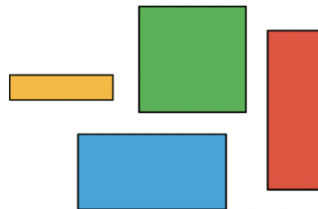
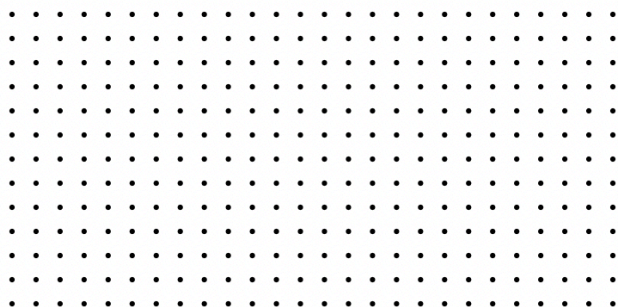
Course Title: Mathematics	Full Year	Required
<p><b>Course Description:</b> The mathematical work for grade 1 is partitioned into 8 units:</p> <ol style="list-style-type: none"> <li>1. Adding, Subtracting, and Working with Data</li> <li>2. Addition and Subtraction Story Problems</li> <li>3. Adding and Subtracting within 20</li> <li>4. Numbers to 99</li> <li>5. Adding within 100</li> <li>6. Length Measurements within 120 units</li> <li>7. Geometry and Time</li> <li>8. Putting it All Together</li> </ol> <p>In these materials, particularly in units that focus on addition and subtraction, teachers will find terms that refer to problem types, such as Add To, Take From, Put Together or Take Apart, Compare, Result Unknown, and so on. These problem types are based on common addition and subtraction situations, as outlined in Table 1 of the Mathematics Glossary section of the Common Core State Standards.</p>		
<p><b>Additional Course Information:</b></p> <p>The big ideas in grade 1 include:</p> <ul style="list-style-type: none"> <li>● developing understanding of addition, subtraction, and strategies for addition and subtraction within 20</li> <li>● developing understanding of whole-number relationships and place value, including grouping in tens and ones</li> <li>● developing understanding of linear measurement and measuring lengths as iterating length units</li> <li>● reasoning about attributes of, and composing and decomposing geometric shapes.</li> </ul>	<p><b>Core Resources:</b></p> <p><a href="#">Illustrative Mathematics</a></p> <p><a href="#">Instructional Routines and Math Language Routines</a></p> <p><a href="#">Glossary - Student-friendly</a></p> <p><a href="#">Required Materials</a></p> <p><a href="#">IM en Español</a></p> <p><a href="#">Developing a Mathematical Community</a></p>	<p><b>Are there any attachments <u>at the course level</u> that teachers will need?</b></p> <p><a href="#">Scope and Sequence</a> - This document should be reviewed at the start of the year and each unit for information on language routines, expectations, and possible misconceptions.</p> <p><a href="#">Pacing Guide and Dependency Diagrams K-5</a></p>

**Unit Overview - FOCUS:**

In this unit, students focus on geometry and time. They expand their knowledge of two- and three-dimensional shapes, partition shapes into halves and fourths, and tell time to the hour and half of an hour. Center activities and warm-ups continue to enable students to solidify their work with adding and subtracting within 20 and adding within 100.

Here, students extend those experiences as they work with shape cards, pattern blocks, geoblocks, and solid shapes. They develop increasingly precise vocabulary as they use defining attributes (“squares have four equal length sides”) rather than non-defining attributes (“the square is blue”) to describe why a specific shape belongs to a given category. Students should, however, focus on manipulating, comparing, and composing shapes and using their own language, rather than learning the formal definitions of shapes.

*Draw 3 shapes that are not rectangles.*



*How do you know these are not rectangles?*

Next, students transition to thinking about how to partition shapes into halves and fourths or quarters. These experiences allow them to learn the language of fractions. Students come to understand that as they continue to make more equal pieces, each piece gets smaller.

**Topic Titles:**

- Section A: Flat and Solid Shapes
  - Shapes that are solid
  - Build shapes from other shapes
  - Shapes that are flat
  - Draw flat shapes
  - Some triangles, all triangles
  - Rectangles and squares
  - Put flat shapes together
- Section B: Halves and Quarters
  - Equal pieces
  - One of the pieces, all of the pieces
  - A bigger piece
- Section C: Tell Time in Hours and Half Hours
  - It’s time to learn about clocks
  - Half of the clock
  - Write times

In the last section, students tell time to the hour and half hour. They learn about the hour and minute hands and what an analog clock looks like when the hour hand moves from one hour to the next. The experience of partitioning circles helps students make sense of time on the clock. Students see that half hours are when the minute hand has moved halfway around the clock, and the time can be written as “half past” or \_\_ : 30.

**Coherence: How does this unit build on and connect to prior knowledge and learning?**

In Kindergarten, students learned about flat and solid shapes. They named, described, built, and compared shapes. They learned the names of some flat shapes (triangle, circle, square, and rectangle) and some solid shapes (cube, sphere, cylinder, and cone).

**Essential Questions:**

1. How can I build, draw, and describe 2D and 3D shapes by their attributes?
2. How can shapes be partitioned into equal shares?
3. How can we tell time in hours and half hours?

**Enduring Understanding:**

- **All shapes have common attributes that help us to describe, build and create them.** Lines and angles define shapes and can be measured and used to develop an understanding of shapes and stability, and also possess properties that students will eventually be able to quantify, like area and perimeter.
- **All shapes can be subdivided into smaller parts or smaller versions of themselves.** As a precursor to division, students thoughtfully look at what it means to have equal shares of an item - like a pizza or a cake. Using shapes, students can determine how to break up a shape into smaller versions of itself or into new shapes that, when joined together, make the original shape.
- **Telling time is similar to partitioning.** Students will be looking at a whole (an hour = 60 minutes; ½ hour = 30 minutes) and determining how to symbolically represent halves of that whole when it comes to an analog clock and telling time (e.g., 9 a.m. as a whole; 9:30 as half of that whole).

**What Students Will Know:**

- Shapes can be built and drawn by their defining attributes.
- Composing two-dimensional and three-dimensional shapes creates a

**What students will do:**

- I can identify and name two-dimensional (squares, circles, triangles, rectangles, and hexagons) and three-dimensional shapes (cubes, cones, cylinders, and spheres)

**Unit Specific Vocabulary:**

Partition  
 three-dimensional /3D  
 two-dimensional/2D  
 Shapes  
 Flat shapes

<p>composite shape.</p> <ul style="list-style-type: none"> <li>● Two-dimensional and three-dimensional shapes can be described by their attributes.</li> <li>● Telling time to the hour and half-hour is similar to partitioning.</li> <li>● Time is a unit of measurement</li> <li>● Time can be shown on analog and digital clocks</li> <li>● The hands on a clock represent hours and minutes</li> <li>● We can tell time using hours (o'clock)</li> <li>● We can tell time using half hours (half past)</li> <li>● There are 30 minutes in half an hour</li> <li>● There are 60 minutes in an hour</li> </ul>	<p>regardless of size and orientation.</p> <ul style="list-style-type: none"> <li>● I can distinguish between defining attributes (number of sides, closed) and non-defining attributes (color, orientation, and overall size) in order to identify the name of the shape.</li> <li>● I can compose two-dimensional shapes.</li> <li>● I can compose three-dimensional shapes.</li> <li>● I can build and draw shapes that possess defining attributes (number of sides,closed)</li> <li>● I can describe 2D shapes using the number of sides and vertices (circles, triangles, squares, rectangles, and hexagons)</li> <li>● I can describe 3D shapes using faces, edges, and vertices and the type of shape for each face (cubes, rectangular prism, cone, cylinder, sphere)</li> <li>● I can create a composite shape and compose new shapes from the composite shape.</li> <li>● I can use strategies for adding 2 two-digit numbers within 100 (review)</li> <li>● I can tell time to the hour and half hour.</li> <li>● I can tell and write time in hours and half hours using analog and digital clocks, including authentic situations.</li> <li>● I understand the relationship/function of the "hands" on a clock.</li> <li>● I can recognize that clock faces represent 60 minutes, and that there are 30 minutes in half an hour.</li> <li>● I can partition circles into two equal shares.</li> <li>● I can describe the shares using the word half (half past).</li> <li>● I can read and write numerals and write a numeral to represent a number of objects up to 120.</li> <li>● I can add within 100.</li> </ul>	<p><b>Academic vocabulary</b></p> <p>Sort category Solid Cube Sphere Cylinder Cone Rectangular prism Triangular prism Geoblocks Triangle Circle Rectangle Square Hexagon Rhombus trapezoid Corners Points Vertices faces Sides edges Attributes Compare same/different Curved Open/closed Equal/Unequal split Piece Whole half Halves Fourths</p>
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	<ul style="list-style-type: none"> <li>● I can determine if equations are true or false.</li> <li>● I can solve equations with unknowns in all positions.</li> </ul>	<p>Quarters          Agree/Disagree          geoblock          True/False          clock          Analog          Digital          Hour          Minutes          Hands (clock)          represent          O'clock          Half          Half-past</p>
<p><b>Entry Level Assessment and Connection to Unit:</b></p> <p><a href="#">Flat and Solid Shapes</a>          (Section A: Pre-Problem Practice)</p> <p><a href="#">Halves and Quarters</a>          (Section B: Pre-Problem Practice)</p> <p><a href="#">Tell Time in Hours and Half Hours</a>          (Section C: Pre-Problem Practice)</p>	<p><b>Unit Materials, Resources and Technology:</b></p> <ul style="list-style-type: none"> <li>● <a href="#">Illustrative Mathematics</a></li> <li>● <a href="#">Instructional Routines and Math Language Routines</a></li> <li>● <a href="#">Glossary - Student-friendly</a></li> <li>● <a href="#">Required Materials</a></li> <li>● <a href="#">IM en Español</a></li> <li>● <a href="#">Pacing Guide and Dependency Diagrams K-5</a></li> <li>● <a href="#">End of Unit 7 Assessment</a></li> <li>● <a href="#">End of Unit 7 Assessment Teacher Guide</a></li> </ul>	
<p><b>Opportunities for Interdisciplinary Connections:</b></p> <p>Connections to this unit can be found in many places across content-areas. Be on the lookout for countable collections in which students can utilize math concepts to count, compare, order, and add within 100. Such collections may include:</p> <ul style="list-style-type: none"> <li>● Animals/insects in a habitat</li> <li>● Objects around the room or in a book (i.e., stickers, hats, etc.)</li> <li>● Stars</li> </ul> <p>Furthermore, students can find shapes in the world around them. They can compare how an object can resemble a shape (for instance, a clock and a circle).</p>		

Students can discuss the attributes that these shapes contain and compare them to the shapes they learned in these Illustrative Math lessons. Students may also use manipulatives in the form of shapes as a type of countable collection.

**Any links, attachments and resources:**

[Instructional Routines Document](#)

[Family Resource Materials](#)

**Planning Ideas:**

[Components of a Typical IM Lesson](#)

[What To Know About IM When Planning](#)

[Where to Find the Mathematical Practices in the Units](#)

[Assessing the Mathematical Practices](#)

<b>Topic # 1 (Section A)</b>	<b>Topic Name: Section A - Flat and Solid Shapes</b>	<b>Duration:</b> Recommended: 8 Lessons
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**Topic Description:**

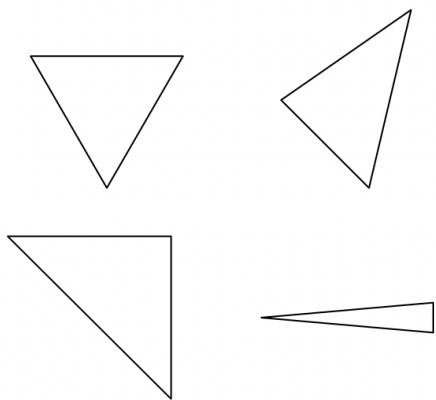
**Section Learning Goals**

- Build and draw shapes to possess defining attributes.
- Compose two-dimensional or three-dimensional shapes to create a composite shape.
- Describe attributes of two-dimensional and three-dimensional shapes.

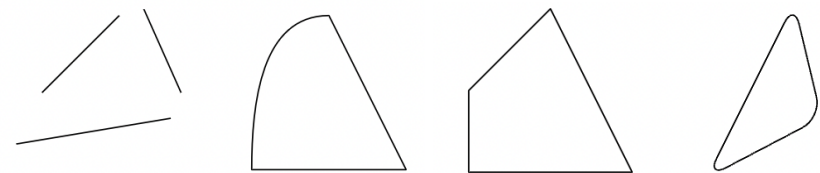
In this section, students explore and reason about attributes of two- and three-dimensional shapes. They begin by sorting and describing shapes in ways that make sense to them. They name shapes (cone, sphere, cylinder, cube, square, rectangle, triangle, rhombus and hexagon), but do not need to hear or produce formal definitions of the shape.

Students identify the defining attributes (number of straight sides and corners) of triangles, rectangles, and squares, and distinguish them from non-defining attributes (color, orientation, size). They describe why a shape belongs in a certain category using their own language. For example, “These are all triangles because they have three straight sides and three corners. This is not a triangle because the sides don’t touch.”

*These are triangles.*



*These are not triangles.*



Students learn that a square is a special rectangle, because it has all of the defining attributes of a rectangle (4 sides, 4 square corners) and also has the defining attribute of a square (4 equal length sides).

Students then compose shapes from smaller shapes to deepen their understanding of two- and three-dimensional shapes. The spatial reasoning here builds a foundation for understanding future mathematical concepts such as symmetry, congruence, fraction, area, and volume.

Geoblocks are used throughout the section. Standard geoblock sets do not include cylinders, spheres, and cones. When these shapes are required, “solid shapes” are indicated as required materials. If solid shapes are not available, students can work with everyday items that represent each shape.

**Competencies Addressed:**

1.G.A, 1.G.A.1, 1.G.A.2, 1.NBT.C.4, 1.OA.C.6

**Understanding and Applying Number Systems**

Indicator 4: I can use my understanding of place value and properties of operations to add.

**Operations and Algebraic Thinking**

Indicator 1: I can add within 20 using strategies.

**Reasoning with Geometry**

Indicator 1: I can reason with shapes and their attributes.

**Essential Question and Enduring Understanding Addressed in this Topic:**

**Essential Question:**

How can I build, draw, and describe 2D and 3D shapes by their attributes?

**Enduring Understanding**

**All shapes have common attributes that help us to describe, build and create them.** Lines and angles define shapes and can be measured and used to develop an understanding of shapes and stability, and also possess properties that students will eventually be able to quantify, like area and perimeter.

**In this Topic, students will know:**

- Shapes can be built and drawn by their defining attributes.
- Composing two-dimensional and three-dimensional shapes creates a composite shape.
- Two-dimensional and three-dimensional shapes can be described by their attributes.

**Topic Vocabulary:**

**Academic vocabulary**

Sort  
category  
Shapes  
three-dimensional /3D  
Solid  
Cube  
Sphere

	<p>Cylinder  Cone  Rectangular prism  Triangular prism  Geoblocks  Flat shapes  two-dimensional/2D  Triangle  Circle  Rectangle  Square  Hexagon  Rhombus  trapezoid  Corners  Points  Vertices  faces  Sides  edges  Attributes  Compare  same/different  Curved  Open/closed</p>
<p><b>In this Topic, students will be able to:</b></p> <ul style="list-style-type: none"> <li>● I can identify and name two-dimensional (squares, circles, triangles, rectangles, and hexagons) and three-dimensional shapes (cubes, cones, cylinders, and spheres) regardless of size and orientation.</li> <li>● I can distinguish between defining attributes (number of sides, closed) and non-defining attributes (color, orientation, and overall size) in order to identify the name of the shape.</li> <li>● I can compose two-dimensional shapes.</li> <li>● I can compose three-dimensional shapes.</li> </ul>	<p><b>Plan for Student Reflection:</b></p> <p><a href="#">Student Journal Prompts and Reflection Practices</a></p> <hr/> <p><b>Plan for Teacher Reflection:</b></p> <ul style="list-style-type: none"> <li>● Reviewing formative assessments</li> <li>● Developing scaffolds</li> <li>● Collaborative scoring</li> <li>● PLCs</li> </ul>

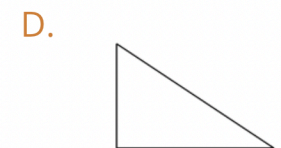
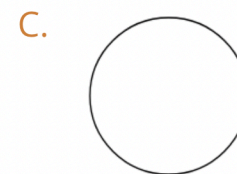
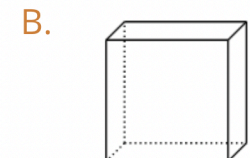
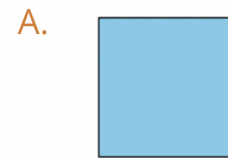
- I can build and draw shapes that possess defining attributes (number of sides,closed)
- I can describe 2D shapes using the number of sides and vertices (circles, triangles, squares, rectangles, and hexagons)
- I can describe 3D shapes using faces, edges, and vertices and the type of shape for each face (cubes, rectangular prism, cone, cylinder, sphere)
- I can create a composite shape and compose new shapes from the composite shape.
- I can use strategies for adding 2 two-digit numbers within 100 (review)

- Planning for small groups
- Teacher Reflection Prompts in Teacher Guides

## Topic 1 Task Development

Each Topic has its own Task that serves as a roadmap for instruction during the unit. The task follows the [Learning Cycle Model](#) that drives teaching and learning in Naugatuck Public Schools.

<b>Task Title: Topic 1 (Section A) - Flat and Solid Shapes</b>	<b>Grade Level and Unit: Grade 1, Unit 7</b>
<b>Description of Task:</b> Students use pattern blocks to compose a new shape, then recreate the new shape using smaller shapes.	<b>Purpose of Task:</b> The purpose of this task is for students to compose two-dimensional shapes into composite shapes and find other smaller shapes that can make the same composite shape.
<b>Background of Students/Learning Progression:</b> In Kindergarten, students were introduced to the names of squares, rectangles, triangles, circles, cubes, spheres, and cylinders. They sorted these shapes into categories and used their own language to describe them.  In previous lessons, students made composite shapes from three-dimensional shapes.	<b>Ensure all competencies are addressed in the task:</b>  <input type="checkbox"/> Yes, all competencies are addressed <input type="checkbox"/> No - Task needs modification
<b>Getting Started:</b> <b><a href="#">Lesson #1: Warm-Up: Which One Doesn't Belong: Shapes</a></b> This warm-up prompts students to compare four images. It gives students a reason to use language precisely (MP6). It gives the teacher an opportunity to hear how students use geometric language and talk about characteristics of the items in comparison to one another.  *For all routines, consider establishing a small, discreet hand signal that students can display to indicate they have an answer they can support with reasoning. This signal could be a thumbs-up, a certain number of fingers that tells the number of responses they have, or another subtle signal. This is a quick way to see if students have had enough time to think about the problem. It also keeps students from being distracted or rushed by hands being raised around the class.  Launch: <ul style="list-style-type: none"><li>● Groups of 2</li><li>● Display the image.</li><li>● "Pick one that doesn't belong. Be ready to share why it doesn't belong."</li></ul>	



- 1 minute: quiet think time

Activity:

- “Discuss your thinking with your partner.”
- 2–3 minutes: partner discussion
- Share and record responses.

Student Sample Responses:

- A doesn’t belong because it’s the only shape that isn’t white.
- B doesn’t belong because it’s the only one that isn’t flat (two-dimensional).  
It is the only one that doesn’t show just one flat shape.
- C doesn’t belong because it’s the only shape that doesn’t have straight lines.
- D doesn’t belong because it’s the only shape that has 3 sides. It is the only one with a slanted side.

Synthesis:

- “Let’s find at least one reason why each one doesn’t belong.”
- “What are the names of the shapes?”
- “I heard someone say \_\_\_\_\_. What does that mean?”

### Learning Cycle Model Process

#### Section A

IM Lesson	<a href="#">L1: Shapes That Are Solid</a>	<a href="#">L2: Build Shapes from Other Shapes</a>	<a href="#">L3: Shapes That Are Flat</a>	<a href="#">L4: Draw Flat Shapes</a>	<a href="#">L5: Some Triangles, All Triangles</a>	<a href="#">L6: Rectangles and Squares</a>	<a href="#">L7: Put Together Flat Shapes</a>	<a href="#">L8: Center Day 1</a>
Learning Cycle Model	Getting Started & Making Meaning	Making Meaning	Making Meaning	Making Meaning	Making Meaning	Making Meaning	Investigate & Create and Produce	Additional Learning
Naugatuck Math Competency	Addressing 1.G.1	Addressing 1.G.1	Addressing 1.G.1	Addressing 1.G.1, 1.NS.4, 1.OA.1, 1.OA.2	Addressing 1.G.1, 1.NS.4, 1.OA.1, 1.OA.2	Addressing 1.G.1, 1.NS.4	Addressing 1.G.1	Addressing 1.G.1, 1.OA.1, 1.OA.2
Math Practice Standards	-	-	MP 2, 3, 6	MP 6	MP 6	MP 6	-	-

<b>Lesson Purpose</b>	The purpose of this lesson is for students to sort three-dimensional shapes and use their own language to describe them.	The purpose of this lesson is for students to use three-dimensional shapes to compose larger shapes.	The purpose of this lesson is for students to describe two-dimensional shapes using their own language, sort them, and explain how they sorted.	The purpose of this lesson is for students to draw and describe two-dimensional shapes. As students draw the shapes and describe them, they develop increasingly precise mathematical language.	The purpose of this lesson is for students to identify defining and non-defining attributes of triangles. Students draw triangles based on defining attributes.	The purpose of this lesson is for students to identify defining and non-defining attributes of squares and rectangles. Students draw rectangles and squares as well as non-examples of rectangles and squares.	The purpose of this lesson is for students to compose larger shapes from pattern blocks and describe the shapes.	The purpose of this lesson is for students to work with two-dimensional and three-dimensional shapes as well as practice addition and subtraction.
<b>Teacher Facing Learning Goals</b>	<ul style="list-style-type: none"> <li>Sort three-dimensional shapes in a way that makes sense to them.</li> <li>Use their own language to describe three-dimensional shapes.</li> </ul>	Compose shapes from other three-dimensional shapes.	<ul style="list-style-type: none"> <li>Sort two-dimensional shapes in a way that makes sense to them.</li> <li>Use their own language to describe two-dimensional shapes.</li> </ul>	<ul style="list-style-type: none"> <li>Draw two-dimensional shapes based on shared attributes.</li> <li>Use increasingly precise language to describe the attributes of two-dimensional shapes.</li> </ul>	<ul style="list-style-type: none"> <li>Draw triangles based on their defining attributes.</li> <li>Identify defining and non-defining attributes of triangles.</li> </ul>	<ul style="list-style-type: none"> <li>Draw squares and rectangles based on defining attributes.</li> <li>Identify defining and non-defining attributes of rectangles and squares.</li> <li>Recognize a square as a special rectangle.</li> </ul>	Compose shapes in different ways.	<ul style="list-style-type: none"> <li>Add and subtract within 20.</li> <li>Compose objects using solid shapes and describe the objects.</li> <li>Find, describe, and compare shapes.</li> </ul>
<b>Vocabulary Focus</b>	Solid shape	Solid shape, Triangular prism, Rectangular prism, cube	Solid shape, flat shape	Flat shape	Triangle	Rectangle, square, sides, corners	Hexagon, rhombus, trapezoid, triangle, rectangle	-

<p><b>Lesson Structure</b></p>	<p><b>Warm-up: 10 m</b> Which One Doesn't Belong: Shapes <b>Activity 1: 20 m</b> Sort Solid Shapes <b>Activity 2: 15 m</b> Describe and Find Shapes <b>Synthesis: 10 m</b> <b>Cooldown: 5 m</b> <a href="#">What Did You Learn?</a></p>	<p><b>Warm-up: 10 m</b> Notice and Wonder: A Shape Bridge <b>Activity 1: 15 m</b> Build with Solid Shapes <b>Activity 2: 10 m</b> Use Shapes to Make Other Shapes <b>Activity 3: 15 m</b> Introduce Geoblocks, Describe &amp; Find <b>Synthesis: 10 m</b></p>	<p><b>Warm-up: 10 m</b> Which One Doesn't Belong: All the Shapes <b>Activity 1: 15 m</b> Card Sort: Flat Shapes <b>Activity 2: 20 m</b> Shape Sort <b>Synthesis: 10 m</b> Gallery Walk <b>Synthesis: 10 m</b> <b>Cooldown: 5 m</b> <a href="#">Sort the Shapes</a></p>	<p><b>Warm-up: 10 m</b> Draw Flat Shapes <b>Activity 1: 10 m</b> Draw Shapes on Dot Paper <b>Activity 2: 15 m</b> Introduce How Are They the Same, Grade 1 Shapes <b>Activity 3: 15 m</b> Centers: Choice Time <b>Synthesis: 10 m</b></p>	<p><b>Warm-up: 10 m</b> Which One Doesn't Belong: Shapes <b>Activity 1: 10 m</b> Triangles and "Not Triangles" <b>Activity 2: 10 m</b> Draw Triangles <b>Activity 3: 20 m</b> Centers: Choice Time <b>Synthesis: 10 m</b></p>	<p><b>Warm-up: 10 m</b> Number Talk: Some Sums <b>Activity 1: 20 m</b> Rectangles and Squares <b>Activity 2: 15 m</b> Draw Rectangles and Squares <b>Synthesis: 10 m</b> <b>Cooldown: 5 m</b> <a href="#">Color Shapes</a></p>	<p><b>Warm-up: 10 m</b> Notice and Wonder: Dogs <b>Activity 1: 15 m</b> Build with Pattern Blocks <b>Activity 2: 10 m</b> Shape Pictures <b>Activity 3: 15 m</b> Introduce Picture Books, Find Shapes <b>Synthesis: 10 m</b></p>	<p><b>Warm-up: 10 m</b> Number Talk: Add 3 Numbers <b>Activity 1: 20 m</b> Introduce Match Mine, Solid Shapes <b>Activity 2: 20 m</b> Centers: Choice Time <b>Synthesis: 10 m</b></p>
<p><b>Materials to Gather</b></p>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>• Bags (brown paper)</li> <li>• Geoblocks</li> <li>• Materials from a previous activity</li> <li>• Solid shapes</li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>• Geoblocks</li> <li>• Solid shapes</li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>• Materials from a previous activity</li> </ul> <p><b>Materials to Copy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Flat Shape Cards Grade 1</a></li> </ul> <p><i>These are also in the center kit, but labeled as "How are They the Same, Stage 1."</i></p>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>• Materials from a previous activity</li> <li>• Materials from a previous lesson</li> <li>• Materials from previous centers</li> </ul> <p><b>Materials to Copy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Cm Dot Paper - Standard</a></li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>• Materials from a previous activity</li> <li>• Materials from a previous lesson</li> <li>• Materials from previous centers</li> </ul> <p><b>Materials to Copy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Cm Dot Paper - Standard</a></li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>• Chart paper</li> <li>• Materials from a previous activity</li> <li>• Materials from a previous lesson</li> </ul> <p><b>Materials to Copy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Cm Dot Paper - Standard</a></li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>• Pattern blocks</li> <li>• Picture books</li> </ul> <p><b>Materials to Copy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Flat Shapes Puzzles</a></li> <li>• <a href="#">Picture Books Stage 3 Recording Sheet</a></li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>• Folders</li> <li>• Geoblocks</li> <li>• Materials from previous centers</li> <li>• Solid shapes</li> </ul>

<b>Lesson Materials/ Resources</b>	<a href="#">Lesson 1 Slides</a>	<a href="#">Lesson 2 Slides</a>	<a href="#">Lesson 3 Slides</a>	<a href="#">Lesson 4 Slides</a>	<a href="#">Lesson 5 Slides</a>	<a href="#">Lesson 6 Slides</a>	<a href="#">Lesson 7 Slides</a>	<a href="#">Lesson 8 Slides</a>	
	<a href="#">Teacher Materials</a>	<a href="#">Teacher Materials</a>	<a href="#">Teacher Materials</a>	<a href="#">Teacher Materials</a>	<a href="#">Teacher Materials</a>	<a href="#">Teacher Materials</a>	<a href="#">Teacher Materials</a>	<a href="#">Teacher Materials</a>	
	<a href="#">Student Pages</a>	<a href="#">Student Pages</a>	<a href="#">Student Pages</a>	<a href="#">Student Pages</a>	<a href="#">Student Pages</a>	<a href="#">Student Pages</a>	<a href="#">Student Pages</a>	<a href="#">Student Pages</a>	
	<b>Activity 1:</b> Each group of 2 students needs about 15 different geoblocks and solid shapes, including different-sized cubes, cylinders, cones, spheres, rectangular prisms, and triangular prisms.	<b>Activity 1:</b> Give each group of 4 geoblocks and solid shapes. Display a cube, sphere, cylinder, and cone.	<b>Activity 1:</b> Create a set of <a href="#">Flat Shape Cards</a> from the blackline master for each group of 2.	<b>Activity 1:</b> Each group of 2 needs the <a href="#">Flat Shape Cards</a> from the previous lesson to introduce " <a href="#">How are They the Same?</a> " <a href="#">Stage 1</a> and <a href="#">Centimeter Dot Paper</a> .	<b>Activity 1:</b> Each group of 2 needs a set of <a href="#">Flat Shape Cards</a> from a previous lesson.	<b>Activity 1:</b> Each group of 2 needs a set of <a href="#">Flat Shape Cards</a> from a previous lesson.	<b>Activity 1:</b> Consider making the <a href="#">Flat Shapes Puzzles</a> blackline master into a packet for each student. Give students pattern blocks.	<b>Activity 1:</b> Give each group of 2 solid shapes and a folder. <a href="#">Intro Stage 2 Match Mine</a> center.	<b>Activity 1:</b> Give each group of 2 solid shapes and a folder. <a href="#">Intro Stage 2 Match Mine</a> center.
	<b>Activity 2:</b> Place one solid shape (sphere, cone, cylinder, cube, triangular prism, and rectangular prism) in each bag. Each group of 2 needs 1 bag.	<b>Activity 2:</b> Give each group of 4 geoblocks. Display a large cube.	<b>Activity 2:</b> Display each group's work from the previous activity.	<b>Activity 2:</b> Each group of 4 needs a set of Flat Shape Cards from the previous activity and <a href="#">centimeter dot paper</a> .	<b>Activity 2:</b> Each group of 2 needs a set of Flat Shape Cards from the previous activity and <a href="#">centimeter dot paper</a> .	<b>Activity 2:</b> Each group of 2 needs a set of Flat Shape Cards from the previous activity and <a href="#">centimeter dot paper</a> .	<b>Activity 2:</b> Give students pattern blocks.	<b>Activity 2:</b> Materials from previous centers (see below).	<b>Activity 2:</b> Materials from previous centers (see below).
	<ul style="list-style-type: none"> <li>Consider making 1-2 more so there are extra bags if students finish a bag.</li> <li>The chart made during the previous activity should be displayed for all to see.</li> </ul>	<b>Activity 3:</b> <a href="#">Intro Geoblocks Stage 3</a> Give each group of 2 4-6 different geoblocks and solid shapes.	<a href="#">Cool-down Sort the Shapes</a>	<b>Activity 3:</b> Materials from previous centers (see below).	<b>Activity 3:</b> Materials from previous centers (see below).	<a href="#">Cool-down Color Shapes</a>	<b>Activity 3:</b> Intro center <a href="#">Picture Books Stage 3</a> <a href="#">Recording Sheet</a> Each group of 2 needs at least one picture book that shows a variety of shapes throughout the book.		
	<a href="#">Cool-down What Did You Learn?</a>								
							<b>Lesson Synthesis</b> Create a chart titled, "What We've Learned About Shapes" for the Lesson Synthesis.		

Assessment	Formative Assessment Strategies: observation, questioning, student discourse See <a href="#">Section A Checkpoint Assessment</a> <a href="#">Section A Checkpoint Teacher's Guide</a>							
	Flat and Solid Shapes Practice Problems A							
Centers Materials				<ul style="list-style-type: none"> <li>• <a href="#">Capture Squares, Stages 1 and 2</a></li> <li>• <a href="#">Compare, Stage 1</a></li> <li>• <a href="#">How Close, Stages 1-3</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Geoblocks, Stage 3</a></li> <li>• <a href="#">How Are They the Same?, Stage 1</a></li> <li>• <a href="#">Compare, Stage 1</a></li> <li>• <a href="#">How Close, Stages 1-3</a></li> </ul>			<ul style="list-style-type: none"> <li>• <a href="#">Picture Books, Stage 3</a></li> <li>• <a href="#">How Are They the Same, Stage 1</a></li> <li>• <a href="#">Capture Squares, Stages 1 and 2</a></li> </ul>

### Making Meaning:

#### [Lesson #1: Shapes That Are Solid](#) Activities 1, 2, & Lesson Synthesis

##### Activity #1: Sort Solid Shapes

The purpose of this activity is for students to sort cubes, cylinders, cones, and spheres, as well as other three-dimensional shapes including rectangular prisms and triangular prisms. Students describe the shapes with their own language. They may sort and classify shapes by attributes such as number of sides, number of corners, or whether shapes have corners or not.

##### Activity #2: Describe and Find Shapes

The purpose of this activity is for students to identify three-dimensional shapes that they cannot see. Students use the attributes shared in the last activity to try to identify shapes by touch. Students are given a set of shapes so they can see and touch them in order to identify the shape in the bag. Students use their own language as they identify and describe the shapes, using words like corners, sides, edges, points, the number of sides, and names of two-dimensional and three-dimensional shapes learned in kindergarten.

- [Teacher presentation materials](#): Geoblocks, Solid Shapes, Bags (brown paper), Materials from a previous activity
- [Slides](#)

#### [Lesson #2: Build Shapes From Other Shapes](#)

- Warm-Up: Notice and Wonder: A Shape Bridge

##### Activity #1: Build With Solid Shapes

The purpose of this activity is for students to use solid shapes to create objects. As they build, encourage students to name the new object and talk about the shapes they used. For example, students may use a cube and a triangular prism and describe it as a house. They continue to use their own

language to name the shapes and may recognize three-dimensional shapes such as cube, cylinder, cone, and sphere. Students may use the terms rectangular prism and triangular prism, but it is not expected that they do so.

#### Activity #2: Use Shapes to Make Other Shapes

The purpose of this activity is for students to create composite shapes and compose new shapes from composite shapes.

#### Activity #3: Introduce Geoblocks, Describe and Find

The purpose of this activity is for students to learn stage 3 of the Geoblocks center. Students describe solid shapes so their partner can identify the shape out of a set of 4–6 solid shapes. Students may describe the shapes in many ways.

- [Teacher presentation materials](#): Geoblocks, Solid Shapes,
- [Slides](#)

### Lesson #3: Shapes That Are Flat

- Warm-Up: Which One Doesn't Belong: All the Shapes

#### Activity #1: Card Sort: Flat Shapes

The purpose of this activity is for students to sort two-dimensional shapes into categories that make sense to them. As students sort, they may sort by defining attributes such as number of sides or corners. Some students may sort by the name of the shape. Some students may sort by non-defining attributes such as color or size. Students may have leftover shapes depending on how they sort. As students work, encourage them to refine their descriptions of the shapes using more precise language and mathematical terms (MP6). Students' sorts are displayed for the gallery walk in the next activity.

#### Activity #2: Shape Sort Gallery Walk

The purpose of this activity is for students to participate in a gallery walk in which they see a variety of ways the flat shapes have been sorted. Student discuss with their partner what they notice about how their classmates sorted the shapes (MP3).

- [Teacher presentation materials](#): Materials to Copy: Flat Shape Cards Grade 1, Materials from a previous activity,
- [Slides](#)

### Lesson #4: Draw Flat Shapes

- Warm-Up: Notice and Wonder: Dot Paper

#### Activity #1: Draw Shapes on Dot Paper

The purpose of this activity is for students to draw shapes. Students pick a shape card, draw it on dot paper, and describe the shape. While students are working, record the words and phrases they used to describe their shapes on a chart. During the synthesis, students look at the language being used to describe shapes. They add or replace language and look for similarities in the words and phrases listed. When students begin to match the names of shapes to words and phrases that describe their defining attributes, they begin to distinguish between the defining and non-defining attributes of the shape categories they know (MP6).

#### Activity #2: Introduce How They Are the Same, Grade 1 Shapes

The purpose of this activity is for students to learn stage 1 of the How Are They the Same center. Students lay six shape cards face up. One student picks two cards that have an attribute in common. All students draw a shape that has a shared attribute with the two shapes. Students get a point if they draw a shape that no other student drew. It is possible that students will draw a shape with a different shared attribute than what the original student chose. This can be an interesting discussion for students to have.

- [Teacher presentation materials](#): Materials from a previous lesson, Materials to Copy: Centimeter Dot Paper - standard,
- [Slides](#)

#### **Lesson #5: Some Triangles, All Triangles**

- Warm-Up: Which One Doesn't Belong: Shapes

##### Activity #1: Triangles and "Not Triangles"

The purpose of this activity is for students to analyze examples and non-examples of triangles. As students compare examples and non-examples, they identify and articulate the defining attributes of triangles (MP6).

##### Activity #2: Draw Triangles

The purpose of this activity is for students to draw triangles. Students use dot paper to draw triangles and then draw shapes that are not triangles. Students may use the shape cards to visualize and draw shapes.

- [Teacher presentation materials](#): Materials from a previous lesson, Materials to Copy: Centimeter Dot Paper-Standard
- [Slides](#)

#### **Lesson #6: Rectangles and Squares**

- Warm-Up: Number Talk: Some Sums

##### Activity #1: Rectangles and Squares

The purpose of this activity is for students to identify defining and non-defining attributes of rectangles and squares. Students begin by noticing what is the same about four rectangles (one being a square). As they notice, they identify some defining attributes (four sides, four square corners, pairs of sides that are the same length). Then given non-examples of rectangles, students notice what makes the non-examples different from examples. Some, but not all, of the attributes students mention will be defining attributes. For example, students may notice that a rectangle has two long sides and two short sides, but this isn't a defining attribute.

##### Activity #2: Draw Rectangles and Squares

The purpose of this activity is for students to draw squares and rectangles. Students use dot paper to draw the shapes. As they draw, they attend to the attributes of squares and rectangles. Students also draw shapes that are not rectangles or squares. They may use the shape cards to visualize and draw shapes.

- [Teacher presentation materials](#): Chart Paper, Materials from a previous activity, Materials to Copy: Centimeter Dot Paper-Standard
- [Slides](#)

**Checkpoints:** These documents for the above lessons provide teachers with a template for collecting data and information on student understanding of skills and concepts.

[Checkpoint A Teacher Instructions](#)

[Checkpoint A Table](#)

**Investigate:**

**[Lesson #7: Put Together Flat Shapes](#):** Warm-Up and Activity 1

- The purpose of this lesson is for students to compose larger shapes from pattern blocks and describe the shapes.
- [Teacher presentation materials](#): Pattern blocks, Picture Books, Materials to Copy: Flat Shapes Puzzles, Picture Books Stage 3 Recording Sheet
- [Slides](#)

**Create and Produce:**

**[Lesson #7: Put Together Flat Shapes](#):** Activity 2

- The purpose of this lesson is for students to compose larger shapes from pattern blocks and describe the shapes.
- [Teacher presentation materials](#): Pattern blocks, Picture Books, Materials to Copy: Flat Shapes Puzzles, Picture Books Stage 3 Recording Sheet
- [Slides](#)

The purpose of this activity is for students to compose two-dimensional shapes into composite shapes and find other smaller shapes that can make the same composite shape. Students use pattern blocks to compose a new shape, then recreate the new shape using smaller shapes.

**Launch:**

- Give students pattern blocks.
- “What kinds of shapes can you make from pattern blocks?” (triangles, rectangles, flowers)
- 30 seconds: quiet think time
- Share responses.

**Activity:**

- “Use the pattern blocks to build something new. You can build whatever you want. After you build your new object, trace it and count the number of pattern blocks you used. Then build the same object using different pattern blocks, and record how many blocks you used.”
- 6 minutes: independent work time
- Monitor for 2–3 students to share their two shapes.

**Communicate and Present:**

**Lesson 7, Activity 2**

**Reflection:**

**Lesson 7 Synthesis:**

<ul style="list-style-type: none"> <li>● Invite previously identified students to share.</li> <li>● “What do you notice about the shapes they built?” (They made a rocket. They used six triangles to make a hexagon in their first shape but used hexagons in the second shape.)</li> <li>● Repeat as time allows.</li> </ul>	<p>Display a chart titled “What We've Learned About Shapes.”</p> <p>“Let’s reflect on the work we did in this section with shapes. First you will think on your own. Then you will share your ideas with a partner.”</p> <p>Share and record responses.</p>
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<p><b>Additional Learning:</b></p> <p><a href="#">Lesson #7: Put Together Flat Shapes</a>: Activity 3</p> <ul style="list-style-type: none"> <li>● The purpose of this lesson is for students to compose larger shapes from pattern blocks and describe the shapes.</li> <li>● <a href="#">Teacher presentation materials</a>: Pattern blocks, Picture Books, Materials to Copy: Flat Shapes Puzzles, Picture Books Stage 3 Recording Sheet</li> <li>● <a href="#">Slides</a></li> </ul> <p><a href="#">Lesson #8: Center Day 1</a></p> <ul style="list-style-type: none"> <li>● The purpose of this lesson is for students to work with two-dimensional and three-dimensional shapes as well as practice addition and subtraction.</li> <li>● <a href="#">Teacher presentation materials</a>: Folders, Geoblocks, Solid Shapes</li> <li>● <a href="#">Slides</a></li> </ul>	
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<p><b>Notes: Follow all lessons in numerical order.</b></p>	<p><b>Complete File with Resources and Task:</b></p> <p><a href="#">Task-Based Learning Plan Format for Unit 7 Topic 1</a></p>
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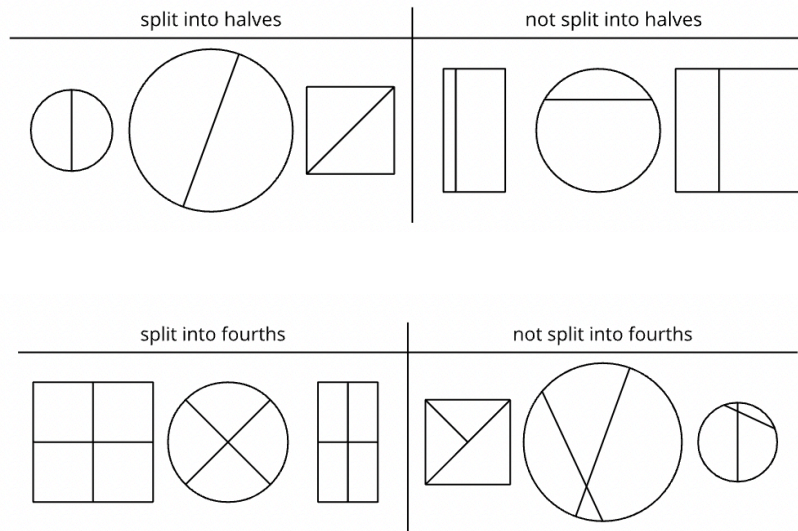
**Topic Description:**

**Section Learning Goals**

- Partition circles and rectangles into two and four equal pieces and describe the pieces with words (halves and fourths).

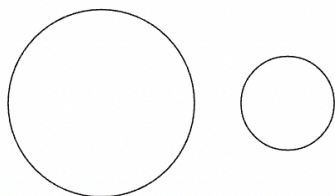
In this section, students explore the idea of halves and fourths as equal pieces of a whole.

Students learn that when decomposing a shape into two equal pieces, each piece is “a half of” the shape, and the pieces are called halves. When a shape is decomposed into four equal pieces, each piece is “a fourth of” the shape, and the pieces are called fourths or quarters.



To create two and four equal pieces, students fold paper shapes and then draw lines to split the shapes. They consider the size of a fourth and a half in relation to the same whole, and notice that as the number of pieces increases, each piece gets smaller.

Split each shape into fourths.



Split each shape into halves.



**Competencies Addressed:**

1.G.A, 1.G.A.1, 1.G.A.2, 1.G.A.3, 1.NBT.C.4, 1.NBT.C.5, 1.OA.C.6

**Understanding and Applying Number Systems**

Indicator 4: I can use my understanding of place value and properties of operations to add.

Indicator 5: I can use my understanding of place value and properties of operations to subtract.

**Operations and Algebraic Thinking**

Indicator 1: I can add within 20 using strategies.

**Reasoning with Geometry**

Indicator 1: I can reason with shapes and their attributes.

Indicator 2: I can use my understanding of equal shares to partition shapes.

**Essential Question and Enduring Understanding Addressed in this Topic:**

**Essential Question:**

1. How can shapes be partitioned into equal shares?

**Enduring Understanding**

**All shapes can be subdivided into smaller parts or smaller versions of themselves.** As a precursor to division, students thoughtfully look at what it means to have equal shares of an item - like a pizza or a cake. Using shapes, students can determine how to break up a shape into smaller versions of itself or into new shapes that, when joined together, make the original shape.

**In this Topic, students will know:**

- Shapes can be partitioned into two and four equal pieces.
- Pieces of partitioned shapes can be described using words (halves, fourths, quarters).

**Topic Vocabulary:**

**Academic vocabulary**

Equal  
Unequal  
split  
Partition

	<p>Piece whole Shapes Circles Rectangles squares half Halves Fourths Quarters Agree Disagree geoblock</p>
<p><b>In this Topic, students will be able to:</b></p> <ul style="list-style-type: none"> <li>● I can partition circles and rectangles into two and four equal shares.</li> <li>● I can describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, quarter of and describe the whole as two of or four of the shares.</li> <li>● I can recognize that decomposing into more equal shares creates smaller shares.</li> <li>● I can build and draw shapes that possess defining attributes.</li> <li>● I can describe two-dimensional shapes.</li> <li>● I can mentally find 10 more than any given two-digit number without counting and explain the reasoning used based on place value understanding. (Review)</li> <li>● I can mentally find 10 less than any given two-digit number without counting and explain the reasoning used. (Review)</li> </ul>	<p><b>Plan for Student Reflection:</b></p> <p><a href="#">Student Journal Prompts and Reflection Practices</a></p> <hr/> <p><b>Plan for Teacher Reflection:</b></p> <ul style="list-style-type: none"> <li>● Reviewing formative assessments</li> <li>● Developing scaffolds</li> <li>● Collaborative scoring</li> <li>● PLCs</li> <li>● Planning for small groups</li> <li>● Teacher Reflection Prompts in Teacher Guides</li> </ul>

## Topic 2 (Section B) Task Development

Each Topic has its own Task that serves as a roadmap for instruction during the unit. The task follows the [Learning Cycle Model](#) that drives teaching and learning in Naugatuck Public Schools.

<b>Task Title: Topic 2 (Section B) - Halves and Quarters</b>	<b>Grade Level and Unit: Grade 1, Unit 7</b>
<b>Description of Task:</b> Students generalize that for halves and fourths of the same circle, a half is larger than a fourth (and a fourth is smaller than a half). As students explain how they know, some may show or color half of the circle and label it Priya, then show or color a fourth that is not shaded and label it Han. Some students may also shade in part of a half to show fourths. When students decide whether they agree with Priya's or Han's statement and justify their choice with diagrams and words, they construct viable arguments and critique the reasoning of others (MP3).	<b>Purpose of Task:</b> The purpose of this task is to help students generalize that partitioning the same-size shape into fourths creates smaller pieces than partitioning it into halves.
<b>Background of Students/Learning Progression:</b> In previous lessons, students created two- and three-dimensional shapes from smaller shapes, and students partitioned shapes into halves and fourths and identified “a half,” “a fourth,” and “a quarter,” of a shape. In this lesson, students build on this work by comparing the size of halves and fourths of same-size shapes. Students explain that for the same shape, a fourth is smaller than a half. In later grades, students will generalize that for any whole, splitting it into more pieces creates smaller size pieces. At this point, they only need to understand the relative size of halves and fourths of the same shape.	<b>Ensure all competencies are addressed in the task:</b> <input type="checkbox"/> Yes, all competencies are addressed <input type="checkbox"/> No - Task needs modification
<b>Getting Started:</b> <b><u>Lesson #9: Warm-Up: Which One Doesn't Belong: Pieces of Shapes</u></b> This warm-up prompts students to carefully analyze and compare images. In making comparisons, students have a reason to use language precisely (MP6). The activity also enables the teacher to hear the terminologies students know and how they talk about characteristics of shapes and pieces of shapes. To help all students distinguish the composite shapes from the smaller shapes they are made up of, invite students to clarify or show what they mean when they describe attributes of the shapes they see in each image.  Launch: <ul style="list-style-type: none"><li>● Groups of 2</li><li>● Display image.</li><li>● “Pick one that doesn't belong. Be ready to share why it doesn't belong.”</li></ul>	

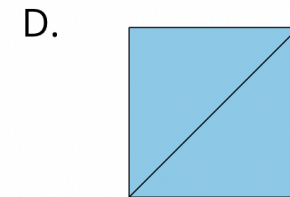
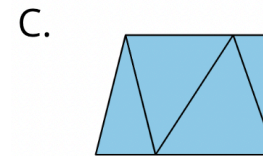
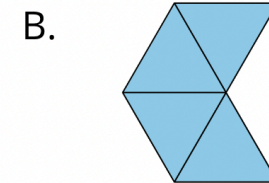
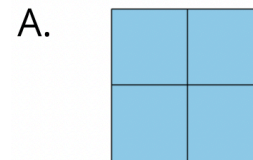
- 1 minute: quiet think time

Activity:

- “Discuss your thinking with your partner.”
- 2-3 minutes: partner discussion
- Share and record responses.

Sample Student Responses:

- A is the only that is not made out of triangles.
- B is the only that doesn't have 4 sides.
- C is the only one not made of the same shape.
- D is the only one that doesn't have four pieces.



Synthesis: “Let’s find at least one reason why each one doesn’t belong.”

### Learning Cycle Model Process

#### Section B

IM Lesson	<a href="#">L9: Equal Pieces</a>	<a href="#">L10: One of the Pieces, All of the Pieces</a>	<a href="#">L11: A Bigger Piece</a>	<a href="#">L12: Center Day 2</a>
Learning Cycle Model	Getting Started & Making Meaning	Making Meaning	Investigate & Create and Produce	Additional Learning
Naugatuck Math Competency	Addressing 1.G.2	Addressing 1.G.2	Addressing 1.G.2, 1.NS.4, 1.NS.5	Addressing 1.G.1, 1.NS.4, 1.OA.1, 1.OA.2
Math Practice Standards	MP 6, 8	MP 6, 7	MP 3, 8	
Lesson Purpose	The purpose of this lesson is for students to partition circles and rectangles into halves and fourths and determine whether a shape is partitioned into equal pieces.	The purpose of this lesson is for students to partition circles and rectangles into halves and fourths, and use precise language to describe the pieces as a half of or a fourth of the whole shape.	The purpose of this lesson is for students to compare the size of halves and fourths of the same shape and understand that partitioning a shape into more equal pieces creates smaller pieces.	The purpose of this lesson is for students to work with shapes and numbers.
Teacher Facing Learning Goals	<ul style="list-style-type: none"> <li>• Determine whether shapes are partitioned into equal pieces. Partition circles and rectangles into halves and fourths.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the whole as two of the halves or four of the fourths. Partition circles and rectangles into halves and fourths and</li> </ul>	<ul style="list-style-type: none"> <li>• Compare the size of halves and fourths of the same shape.</li> <li>• Understand that for halves and fourths, partitioning a shape into more equal pieces creates</li> </ul>	<ul style="list-style-type: none"> <li>• Add within 100.</li> <li>• Compose objects using solid shapes and describe the objects.</li> <li>• Recognize and describe shapes</li> </ul>

		describe one piece as “a half of”, “a fourth of” or “a quarter of” the whole shape.	smaller pieces.	seen in picture books. ● Subtract within 10.
<b>Vocabulary Focus</b>	halves fourths	half of fourth of		
<b>Lesson Structure</b>	<b>Warm-up: 10 minutes</b> Which One Doesn't Belong: Pieces of Shapes <b>Activity 1: 10 minutes</b> Build a Circle <b>Activity 2: 15 minutes</b> Fold into Equal Pieces <b>Activity 3: 10 minutes</b> Halves or Fourths <b>Synthesis: 10 minutes</b> <b>Cooldown: 5 minutes</b> <a href="#">Split Shapes</a>	<b>Warm-up: 10 minutes</b> Which One Doesn't Belong: Split Shapes <b>Activity 1: 10 minutes</b> Color a Piece <b>Activity 2: 15 minutes</b> Card Sort: Shaded Pieces <b>Activity 3: 10 minutes</b> Describe Equal Pieces <b>Synthesis: 10 minutes</b> <b>Cooldown: 5 minutes</b> <a href="#">Split the Rectangle</a>	<b>Warm-up: 10 minutes</b> Choral Count: 10 More, 10 Less <b>Activity 1: 15 minutes</b> Which is Bigger? <b>Activity 2: 10 minutes</b> Priya and Han Share Roti <b>Activity 3: 15 minutes</b> Introduce Geoblocks Center Stage 4, Feel and Guess <b>Synthesis: 10 minutes</b>	<b>Warm-up: 10 minutes</b> How Many Do You See: 2 or 3 Parts <b>Activity 1: 20 minutes</b> Introduce Can You Draw It Stage 1, Grade 1 Shapes <b>Activity 2: 20 minutes</b> Centers: Choice Time <b>Synthesis: 10 minutes</b>
<b>Materials to Gather</b>	<b>Materials to Gather</b> ● Scissors  <b>Materials to Copy</b> ● <a href="#">Pieces of Circles</a> ● <a href="#">Circles and Squares</a>	<b>Materials to Gather</b> ● Colored pencils or crayons  <b>Materials to Copy</b> ● <a href="#">Shaded Parts Cards</a>	<b>Materials to Gather</b> ● Bags ● Colored pencils or crayons ● Geoblocks ● Scissors	<b>Materials to Gather</b> ● Materials from a previous lesson ● Materials from previous centers  <b>Materials to Copy</b> ● <a href="#">Centimeter Dot Paper - Standard</a>
<b>Lesson Materials/ Resources</b>	<a href="#">Lesson 9 Slides</a>  <a href="#">Teacher Materials</a>  <a href="#">Student Pages</a>  <b>Activity 1:</b> ● Cut out the pieces of the circles on the blackline master, <a href="#">Pieces of Circles</a> . Each copy has enough pieces for 8 students. ● Give each student one piece of the circle. <b>Activity 2:</b>	<a href="#">Lesson 10 Slides</a>  <a href="#">Teacher Materials</a>  <a href="#">Student Pages</a>  <b>Activity 1:</b> ● Give groups of 2 access to colored pencils or crayons.  <b>Activity 2:</b> ● Create a set of <a href="#">Shaded Parts Cards</a> for each group of 2.	<a href="#">Lesson 11 Slides</a>  <a href="#">Teacher Materials</a>  <a href="#">Student Pages</a>  <b>Activity 1:</b> ● Give groups of 2 a pair of scissors.  <b>Activity 2:</b> ● Give groups of 2 access to colored pencils or crayons.	<a href="#">Lesson 12 Slides</a>  <a href="#">Teacher Materials</a>  <a href="#">Student Pages</a>  <b>Activity 1:</b> ● Introduce Stage 1 of Can you Draw it Center. Each group of 2 needs a set of <a href="#">Flat Shape Cards</a> from a previous lesson and <a href="#">Centimeter Dot Paper - Standard</a> .

	<ul style="list-style-type: none"> <li>● Give each student a copy of the blackline master <a href="#">Circles and Squares</a> and scissors.</li> <li>● Consider having extra shapes cut from the blackline masters for students who may need more than one of each shape.</li> </ul> <p><a href="#">Cool-down Split Shapes</a></p>	<p><a href="#">Cool-down Split theGrade1-7-10-CoolDown-cool-down.pdf</a> <a href="#">Rectangle</a></p>	<p><b>Activity 3:</b></p> <ul style="list-style-type: none"> <li>● Intro Stage 4 Geoblocks center. Place 4–6 different geoblocks into a bag that is not see-through for each group of 2 students.</li> </ul>	<p><b>Activity 2:</b></p> <ul style="list-style-type: none"> <li>● Materials from previous centers (see below)</li> </ul>
Assessment	<p><b>Formative Assessment Strategies: observation, questioning, student discourse</b> See <a href="#">Section B Checkpoint Assessment</a> <a href="#">Section B Checkpoint Teacher's Guide</a></p>			
	<p><a href="#">Section B Practice Problems: Halves and Quarters</a></p>			
Centers Materials				<ul style="list-style-type: none"> <li>● <a href="#">Picture Books, Stage 2</a></li> <li>● <a href="#">Match Mine, Stage 2</a></li> <li>● <a href="#">Capture Squares, Stages 1 and 2</a></li> <li>● <a href="#">Target Numbers, Stages 1-3</a></li> </ul>

### Making Meaning:

#### [Lesson #9: Equal Pieces](#): Activities 1, 2, 3 & Lesson Synthesis

- [Activity #1: Build A Circle](#)  
The purpose of this activity is for students to recognize the difference between equal-size pieces and unequal-size pieces. Students work together to make circles from the pieces they are given. After some circles have been made, students discuss what they notice about each circle. Both circles have four pieces, however one has equal-size pieces and the other doesn't.
- [Activity #2: Fold Into Equal Pieces](#)  
The purpose of this activity is for students to fold circles and squares into two or four equal pieces. To make equal pieces, some students may partition the shape by folding it down the middle (and folding again for fourths) and matching up the edges of the shapes. There are several ways students may fold their square into equal pieces--vertically, horizontally, or diagonally--although each way gives different shaped pieces, they all result in four equal pieces. There are many ways to fold the circle but the size and shape of the pieces when it is folded are all the same (MP8).
- [Activity #3: Halves or Fourths](#)  
The purpose of this activity is for students to be introduced to the terms halves and fourths. In the launch, students explore examples and non-examples of shapes split into halves and fourths and develop a shared understanding of what these terms mean (MP6). Students then

draw lines to partition shapes into halves or fourths. During the synthesis students learn that the term 'quarters' means the same as fourths. Fourth and quarters will be used interchangeably throughout this section.

- [Teacher presentation materials](#): Scissors, Materials to Copy: Pieces of Circles, Circles and Squares
- [Slides](#)

### **Lesson #10: One of the Pieces, All of the Pieces**

- Warm-Up: Which One Doesn't Belong: Split Shapes
- [Activity #1: Color a Piece](#)

The purpose of this activity is to introduce the language of a half of and a fourth of a shape. Students begin by applying the language of halves and fourths, or quarters, to partition each shape. Students are asked to describe "how much" of each shape is shaded to elicit a variety of responses that include half, fourth, or quarter, including the phrases "of the square" or "of the circle." Monitor for a variety of words and phrases to share in the synthesis including:

- phrases that reference the pieces only ("one piece").
- phrases that reference that some, but not all of the shape is shaded ("part of it," "a little bit")
- phrases that name the pieces ("a half," "a fourth," "a quarter")
- phrases that name the pieces in reference to the whole shape ("a half of the square," "a fourth of the circle")
- [Activity #2: Card Sort: Shaded Pieces](#)  
The purpose of this card sort is for students to connect words and phrases to visual representations of partitioned shapes. Students begin by sorting the cards in a way that makes sense to them, and then are invited to sort the shapes based on the language that can be used to describe them. In the activity synthesis, the phrases "two of the halves" and "four of the fourths" are introduced to describe shapes where all pieces are shaded in.
- [Activity #3: Describe Equal Pieces](#)  
The purpose of this activity is for students to match language to visual representations of rectangles and circles partitioned and shaded in different ways.
- [Teacher presentation materials](#): Colored pencils or crayons, Materials to Copy: shaded parts cards
- [Slides](#)

**Checkpoints:** These documents for the above lessons provide teachers with a template for collecting data and information on student understanding of skills and concepts.

[Checkpoint B Teacher Instructions](#)

[Checkpoint B Table](#)

### **Investigate:**

[Lesson #11: A Bigger Piece](#): Warm-Up and Activity 1

- The purpose of this lesson is for students to compare the size of halves and fourths of the same shape and understand that partitioning a shape into more equal pieces creates smaller pieces.
- [Teacher presentation materials](#): Bags, Geoblocks, colored pencils, crayons, scissors
- [Slides](#)

**Create and Produce:**

**[Lesson #11: A Bigger Piece](#)**: Activity 2

- The purpose of this lesson is for students to compare the size of halves and fourths of the same shape and understand that partitioning a shape into more equal pieces creates smaller pieces.
- [Teacher presentation materials](#): Bags, Geoblocks, colored pencils, crayons, scissors
- [Slides](#)

The purpose of this activity is to help students generalize that partitioning the same-size shape into fourths creates smaller pieces than partitioning it into halves. This builds on work from a previous activity in which students compare halves and fourths of circles and squares. Students generalize that for halves and fourths of the same circle, a half is larger than a fourth (and a fourth is smaller than a half). As students explain how they know, some may show or color half of the circle and label it Priya, then show or color a fourth that is not shaded and label it Han. Some students may also shade in part of a half to show fourths. When students decide whether they agree with Priya's or Han's statement and justify their choice with diagrams and words, they construct viable arguments and critique the reasoning of others (MP3).

Launch:

- Groups of 2
- Give students access to colored pencils or crayons.
- “What are some different types of food that you can share with another person?” (pizza, sandwich, papadum, quesadilla, tortilla)
- “This picture shows roti, a flatbread from India.”

Activity:

- Read the task statement.
- 5 minutes: partner work time
- Monitor for a student who shows and can explain that a half is bigger than a fourth.

**Communicate and Present:**

Lesson 11, Activity 2 Synthesis:

- Invite previously identified students to share.

**Reflection:**

Lesson 11 Synthesis:

“In this section we learned about splitting shapes into equal pieces. What have you learned?” (I learned that a half is

<p>MLR8 Discussion Supports</p> <ul style="list-style-type: none"> <li>• “Who can restate what ____ shared in their own words?”</li> <li>• Consider providing students time to restate what they heard to a partner before selecting one or two students to share with the class.</li> <li>• Ask the original speaker if their peer was accurately able to restate their thinking.</li> </ul>	<p>larger than a fourth. I learned that a quarter is another way to say a fourth. I learned that when one piece is shaded it is a fourth or a half, but when the entire shape is shaded it’s called 'two of the halves' or 'four of the fourths'.)</p>
<p><b>Additional Information:</b></p> <p><a href="#">Lesson #11: A Bigger Piece</a>: Activity 3</p> <ul style="list-style-type: none"> <li>• The purpose of this lesson is for students to compare the size of halves and fourths of the same shape and understand that partitioning a shape into more equal pieces creates smaller pieces.</li> <li>• <a href="#">Teacher presentation materials</a>: Bags, Geoblocks, colored pencils, crayons, scissors</li> <li>• <a href="#">Slides</a></li> </ul> <p><a href="#">Lesson #12: Center Day 2</a></p> <ul style="list-style-type: none"> <li>• The purpose of this lesson is for students to work with shapes and numbers.</li> <li>• <a href="#">Teacher presentation materials</a>: Materials from a previous lesson, Materials to Copy: Centimeter Dot Paper-Standard</li> <li>• <a href="#">Slides</a></li> </ul>	
<p><b>Notes: Follow all lessons in numerical order.</b></p>	<p><b>Complete File with Resources and Task:</b></p> <p><a href="#">Task-Based Learning Plan Format for Unit 7 Topic 2</a></p>

<b>Topic # 3 (Section C)</b>	<b>Topic Name: Section C - Tell Time in Hours and Half Hours</b>	<b>Duration:</b> Recommended: 5 Lessons
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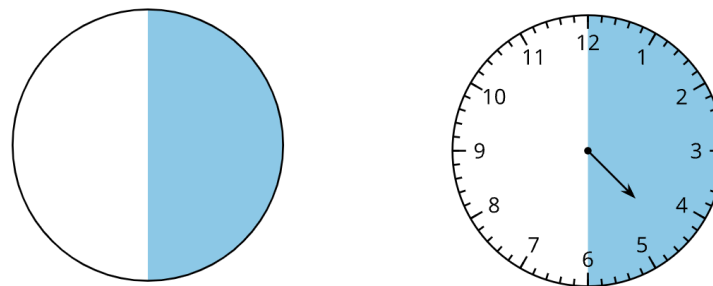
**Topic Description:**

**Section Learning Goals**

- Tell and write time in hours and half-hours.

In this section, students learn to tell time in hours and half hours on both analog and digital clocks by interpreting the position of the hands on the former and the digits of the latter. They connect the language of “o’clock” and “half past” to the times shown on analog and digital clocks.

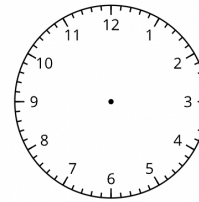
Students begin by interpreting clock faces that only show an hour hand. This is to draw their attention to the fact that the hour hand will point directly to a number at the hour and halfway in between two numbers at the half hour. Given their understanding of halves of shapes, students see that when the minute hand starts at the 12 and rotates to point at the 6, it has moved halfway around the clock.



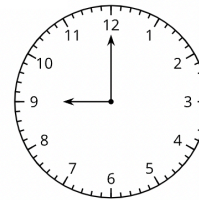
To build students’ concept of time, consider preparing an alarm that goes off each half-hour to draw attention to time in hours and half hours. When the alarm goes off, students can look at the clock, draw the hands on a blank clock, and record the time using numbers.

*Fill in the clocks to show what time each activity starts.*

8:00



:



Although the lessons in this section focus on 12-hour clocks, some students who are familiar with 24-hour clocks should be invited to share what they know.

**Competencies Addressed:**

1.G.A, 1.G.A.2, 1.MD.B.3, 1.NBT.A.1, 1.NBT.C.4, 1.OA.C.6, 1.OA.D.7

**Understanding and Applying Number Systems**

Indicator 2: I can count, read, and write whole numbers.

Indicator 4: I can use my understanding of place value and properties of operations to add.

**Operations and Algebraic Thinking**

Indicator 1: I can add within 20 using strategies.

**Reasoning with Geometry**

Indicator 2: I can use my understanding of equal shares to partition shapes.

**Measurement and Data Investigations**

Indicator 2: I can tell and write time

**Essential Question and Enduring Understanding Addressed in this Topic:**

**Essential Question:**

How can we tell time in hours and half hours?

**Enduring Understanding**

**Telling time is similar to partitioning.** Students will be looking at a whole (an hour = 60 minutes;  $\frac{1}{2}$  hour = 30 minutes) and determining how to symbolically represent halves of that whole when it comes to an analog clock and telling time (e.g., 9 a.m. as a whole; 9:30 as half of that whole).

**In this Topic, students will know:**

**Topic Vocabulary:**

<ul style="list-style-type: none"> <li>● Time is a unit of measurement</li> <li>● Time can be shown on analog and digital clocks</li> <li>● The hands on a clock represent hours and minutes</li> <li>● We can tell time using hours (o'clock)</li> <li>● We can tell time using half hours (half past)</li> <li>● There are 30 minutes in half an hour</li> <li>● There are 60 minutes in an hour</li> </ul>	<p><b>Academic vocabulary</b></p> <p>Agree Disagree True False clock Analog Digital Hour Minutes Hands (clock) represent O'clock Half Half-past</p>
<p><b>In this Topic, students will be able to:</b></p> <ul style="list-style-type: none"> <li>● I can tell and write time in hours and half hours using analog and digital clocks, including authentic situations.</li> <li>● I understand the relationship/function of the “hands” on a clock.</li> <li>● I can recognize that clock faces represent 60 minutes, and that there are 30 minutes in half an hour.</li> <li>● I can partition circles into two equal shares.</li> <li>● I can describe the shares using the word half (half past).</li> <li>● I can read and write numerals and write a numeral to represent a number of objects up to 120.</li> <li>● I can add within 100.</li> <li>● I can determine if equations are true or false.</li> <li>● I can solve equations with unknowns in all positions.</li> </ul>	<p><b>Plan for Student Reflection:</b></p> <p><a href="#">Student Journal Prompts and Reflection Practices</a></p> <hr/> <p><b>Plan for Teacher Reflection:</b></p> <ul style="list-style-type: none"> <li>● Reviewing formative assessments</li> <li>● Developing scaffolds</li> <li>● Collaborative scoring</li> <li>● PLCs</li> <li>● Planning for small groups</li> <li>● Teacher Reflection Prompts in Teacher Guides</li> </ul>

## Topic 3 Task Development

Each Topic has its own Task that serves as a roadmap for instruction during the unit. The task follows the [Learning Cycle Model](#) that drives teaching and learning in Naugatuck Public Schools.

<b>Task Title: Topic 3 (Section C)- Tell Time in Hours and Half Hours</b>	<b>Grade Level and Unit: Grade 1, Unit 7</b>
<b>Description of Task:</b> Students fill in all blanks in a schedule, the time, the activity and the clock, to create their ideal Sunday schedule. The task gives an opportunity for students to relate time and telling time to their Sunday schedule (MP2).	<b>Purpose of Task:</b> The purpose of this task is for students to write time to the hour and half-hour in order to fill in a Sunday schedule.
<b>Background of Students/Learning Progression:</b> In previous sections, students learned about linear measurement. In this lesson, they formally learn about measuring time. It is likely that students will have experiences working with time outside of school, but they may have limited familiarity with clock faces.  In previous lessons, students wrote times based on analog clocks showing time in hours and half hours.  In lesson 16, they continue working with telling time from clocks, with special attention to times where students may mix-up the minute and hour hands (for example, 6:30, 12:30, 12:00, 6:00). Students also practice writing times and drawing the hands on the clock as they create their ideal Sunday schedule.	<b>Ensure all competencies are addressed in the task:</b>  <input type="checkbox"/> Yes, all competencies are addressed <input type="checkbox"/> No - Task needs modification
<b>Getting Started:</b> <b><a href="#">Lesson #13: Warm-Up: Notice and Wonder: Clocks</a></b> The purpose of this warm-up is to elicit the idea that time is a measurement, which will be useful when students read clocks in hours in a later activity. While students may notice and wonder many things about these images, the ideas that these numbers represent time and student experiences with digital clocks are the important discussion points.  Launch: <ul style="list-style-type: none"><li>● Groups of 2</li><li>● Display the image.</li><li>● “What do you notice? What do you wonder?”</li></ul>	

- 1 minute: quiet think time

Activity:

- “Discuss your thinking with your partner.”
- 1 minute: partner discussion
- Share and record responses.

- 1:00
- 2:00
- 3:00
- 4:00
- 5:00
- 6:00
- 7:00
- 8:00
- 9:00
- 10:00
- 11:00
- 12:00

Students may notice:

- I notice the numbers go up by one on the left.
- All of them have 00 on the right.

Students may wonder:

- How many hours are in a day?
- What if there are minutes too?

Synthesis:

- “This list shows different times. Where have you seen times shown like this?”  
(I’ve seen it on clocks, iPhone, iPad, computer, and watches.)
- “We can tell the time using hours. We read the first time as “1 o’clock.” Let’s read all the times together.”

**Learning Cycle Model Process**

**Section C**

IM Lesson	<a href="#">L13: It’s Time to Learn About Clocks</a>	<a href="#">L14: Half of the Clock</a>	<a href="#">L15: Write Times</a>	<a href="#">L16: Hard Times</a>	<a href="#">L17: Center Day 3</a>
Learning Cycle Model	Getting Started & Making Meaning	Making Meaning	Making Meaning	Investigate & Create and Produce	Additional Learning
Naugatuck Math Competency	Addressing 1.MD.2	Addressing 1.MD.2, 1.NS.4	Addressing 1.MD.2, 1.NS.2, 1.OA.1, 1.OA.2	Addressing 1.MD.2, 1.NS.4	Addressing 1.G.1, 1..MD.2, 1.NS.4, 1.OA.1, 1.OA.2
Math Practice Standards	MP 7	MP 7	MP 7	MP 2	-
Lesson Purpose	The purpose of this lesson is for students to tell and	The purpose of this lesson is for students to learn about	The purpose of this lesson is for students to understand	The purpose of this lesson is for students to show and	The purpose of this lesson is for students to work with

	write time in hours.	the position of the hands on an analog clock at half past the hour.	that times called half past are represented as __:30. Students write time in hours and half hours to match analog clocks.	write times in hours and half hours.	shapes and addition and subtraction.
<b>Teacher Facing Learning Goals</b>	<ul style="list-style-type: none"> <li>Tell and write time in hours.</li> <li>Understand time as a unit of measurement.</li> </ul>	<ul style="list-style-type: none"> <li>Relate halves of circles to half hours.</li> <li>Tell time in hours and half hours.</li> </ul>	Tell and write time in hours and half hours.	<ul style="list-style-type: none"> <li>Relate time to a daily schedule.</li> <li>Tell and write time in hours and half hours.</li> </ul>	<ul style="list-style-type: none"> <li>Add within 100.</li> <li>Describe two-dimensional and three-dimensional shapes.</li> <li>Subtract within 10.</li> </ul>
<b>Vocabulary Focus</b>	o'clock	half past			
<b>Lesson Structure</b>	<p><b>Warm-up: 10 minutes</b> Notice and Wonder: Clocks <b>Activity 1: 15 minutes</b> Card Sort: Clocks <b>Activity 2: 10 minutes</b> Connect Clocks to Written Times <b>Activity 3: 10 minutes</b> Our School Day <b>Synthesis: 10 minutes</b> <b>Cooldown: 5 minutes</b> <a href="#">Show the Time</a></p>	<p><b>Warm-up: 10 minutes</b> Number Talk: Work with 30 <b>Activity 1: 15 minutes</b> Put Times in Order <b>Activity 2: 10 minutes</b> Half Past What? <b>Activity 3: 10 minutes</b> Notice and Wonder: the Hands on the Clock Go Round and Round <b>Synthesis: 10 minutes</b> <b>Cooldown: 5 minutes</b> <a href="#">Find 2:30</a></p>	<p><b>Warm-up: 10 minutes</b> True or False: Close to 30 <b>Activity 1: 10 minutes</b> Count the Minutes <b>Activity 2: 25 minutes</b> All the Time in the WORld <b>Synthesis: 10 minutes</b> <b>Cooldown: 5 minutes</b> <a href="#">Time in Half-Hours and Hours</a></p>	<p><b>Warm-up: 10 minutes</b> Number Talk: Tens and Ones <b>Activity 1: 15 minutes</b> What's the Time? <b>Activity 2: 10 minutes</b> What's the Time, Again? <b>Activity 3: 10 minutes</b> Sunday Schedule <b>Synthesis: 10 minutes</b> <b>Cooldown: 5 minutes</b> <a href="#">Draw the Clock</a></p>	<p><b>Warm-up: 10 minutes</b> Which One Doesn't Belong: Clocks <b>Activity 1: 20 minutes</b> Introduce Which One Stage 2, Grade 1 Shapes <b>Activity 2: 20 minutes</b> Centers: Choice Time <b>Synthesis: 10 minutes</b></p>
<b>Materials to Gather</b>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>Scissors</li> </ul> <p><b>Materials to Copy</b></p> <ul style="list-style-type: none"> <li><a href="#">Clock Cards Hour</a></li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>Colored pencils, crayons, or markers</li> <li>Materials from a previous activity (Clock Cards)</li> <li>Scissors</li> </ul> <p><b>Materials to Copy</b></p> <ul style="list-style-type: none"> <li><a href="#">Clock Cards Half Past</a></li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>Materials from a previous lesson (<a href="#">Clock Cards Half Past</a>)</li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>Materials from a previous lesson (Hour Clock Cards and Half Hour Clock Cards)</li> </ul>	<p><b>Materials to Gather</b></p> <ul style="list-style-type: none"> <li>Materials from previous centers</li> <li>Two-color counters</li> </ul> <p><b>Materials to Copy</b></p> <ul style="list-style-type: none"> <li><a href="#">Which One Stage 2 Gameboard</a></li> </ul>
<b>Lesson Materials/ Resources</b>	<p><a href="#">Lesson 13 Slides</a></p> <p><a href="#">Teacher Materials</a></p> <p><a href="#">Student Pages</a></p>	<p><a href="#">Lesson 14 Slides</a></p> <p><a href="#">Teacher Materials</a></p> <p><a href="#">Student Pages</a></p>	<p><a href="#">Lesson 15 Slides</a></p> <p><a href="#">Teacher Materials</a></p> <p><a href="#">Student Pages</a></p>	<p><a href="#">Lesson 16 Slides</a></p> <p><a href="#">Teacher Materials</a></p> <p><a href="#">Student Pages</a></p>	<p><a href="#">Lesson 17 Slides</a></p> <p><a href="#">Teacher Materials</a></p> <p><a href="#">Student Pages</a></p>

	<p><b>Activity 1:</b> Give groups of 2 the blackline master, <a href="#">Clock Cards Hour</a>, and scissors.</p> <p><b>Activity 2:</b></p> <ul style="list-style-type: none"> <li>Each student needs the clock cards they created in the previous activity.</li> </ul> <p><a href="#">Cool-down Show the Time</a></p>	<p><b>Activity 1:</b></p> <ul style="list-style-type: none"> <li>Each student needs their clock cards from the previous lesson, scissors, and a copy of the blackline master, <a href="#">Clock Cards Half Past</a>.</li> </ul> <p><b>Activity 2:</b></p> <ul style="list-style-type: none"> <li>Each student needs red and blue colored pencils, crayons, or markers.</li> </ul> <p><b>Activity 3:</b></p> <ul style="list-style-type: none"> <li>Each student needs their Half Past Clock Cards from a previous activity.</li> </ul> <p><a href="#">Cool-down Find 2:30</a></p>	<p><b>Activity 2:</b></p> <ul style="list-style-type: none"> <li>Each student needs their <a href="#">Half Past Clock Cards</a> from a previous lesson</li> </ul> <p><a href="#">Cool-down Time in Half-Hours and Hours</a></p>	<p><b>Activity 1:</b></p> <ul style="list-style-type: none"> <li>Each student needs both the Hour Clock Cards and Half Hour Clock Cards from previous lessons.</li> </ul> <p><a href="#">Cool-down Draw the Clock</a></p>	<p><b>Activity 1:</b></p> <ul style="list-style-type: none"> <li>Introduce Which One Stage 2 Center.</li> <li>Give groups of 2 <a href="#">Which One Stage 2 Gameboard</a> and access to two-color counters.</li> </ul> <p><b>Activity 2:</b></p> <ul style="list-style-type: none"> <li>Gather materials from previous centers (see below).</li> </ul>
Assessment	<p><b>Formative Assessment Strategies: observation, questioning, student discourse</b> See <a href="#">Section C Checkpoint Assessment</a> <a href="#">Section C Checkpoint Teacher’s Guide</a></p>				
	<p><a href="#">Section C Practice Problems: Tell Time in Hours and Half Hours</a></p>				<p><a href="#">Unit 7 Assessment</a> <a href="#">Unit 7 Assessment Teacher Guide</a></p>
Centers Materials					<ul style="list-style-type: none"> <li><a href="#">Can You Draw It, Stage 1</a></li> <li><a href="#">Match Mine, Stage 2</a></li> <li><a href="#">Capture Squares, Stages 1 and 2</a></li> <li><a href="#">Target Numbers, Stages 1-3</a></li> </ul>

**Making Meaning:**

[Lesson #13: It’s Time to Learn About Clocks:](#) Activities 1, 2, 3 & Lesson Synthesis

- [Activity #1: Card Sort: Clocks](#)

The purpose of this activity is for students to understand how to tell time using an analog clock, with only the hour hand. Students work with a set of cards that show clocks with just the hour hand. When they sort the cards, students focus on the structure of the clock faces, mainly the numbers and where the arrow points (MP7). In the activity synthesis, students are introduced to the language, hour hand, and that time to the hour is read as “ \_\_\_ o’clock.”

The cards that the students create will be used in the next activity and future lessons. *MLR8 Discussion Supports*. Synthesis: To support the transfer of new vocabulary to long term memory, invite students to chorally repeat these phrases in unison 1-2 times: hour hand, 3 o’clock.

- Activity #2: Connect Clocks to Written Times

The purpose of this activity is to connect the time shown on a digital clock with an analog clock with only the hour hand displayed. Students use the cards created in the first activity to write times in the digital format to represent each clock.

- Activity #3: Our School Day

The purpose of this activity is to represent time to the hour on analog clocks and write time to the hour digitally, using the context of a daily school schedule. Students look at a schedule with the time and activity given and represent the same time on a clock. Students begin to explore the minute hand. Teachers can create their own schedule to use for this activity or can use the one provided. When students connect the times of different activities to the times shown on the clocks, they reason abstractly and quantitatively (MP2).

- [Teacher presentation materials](#): Scissors, materials from previous activities, Materials to Copy: Clock Cards Hour,
- [Slides](#)

#### Lesson #14: Half of the Clock

- Warm-Up: Number Talk: Work with 30

- Activity #1: Put Times in Order

The purpose of this activity is for students to see that the hour hand doesn’t always point directly at a number on the clock. Students see that the hour hand can be between two hours. The end of the activity synthesis provides an opportunity for formative assessment of students’ understanding of the language of “half past” which they will continue developing in the next activities.

- Activity #2: Half Past What?

The purpose of this activity is for students to identify whether a clock is showing a time that’s half past or o’clock. Students use the position of the hour hand to determine the time.

- Activity #3: Notice and Wonder: The Hands of the Clock Go Round and Round

The purpose of this activity is for students to connect their understanding of half of a circle to the minute hand moving halfway around the face of a clock (MP7). Students watch a display clock to see that as the minute hand goes around the clock, the hour hand goes from one hour to the next. In the activity synthesis, students add the minute hand to their half-past clock cards. In the next lesson, students will connect half past to 30 minutes to write times in hours and half hours. Use a display clock set to 10:00 and show the minute hand moving around until the clock shows 11:00. If a display clock is not available, [this video](#) can be used.

- [Teacher presentation materials](#): Scissors, colored pencils, crayons, or markers, materials from a previous lesson, Materials to Copy: Clock Cards Half Past

- [Slides](#)

### [Lesson #15: Write Times](#)

- Warm-Up: True or False: Close to 30
- [Activity #1: Count the Minutes](#)  
The purpose of this activity is to connect 30 minutes to telling the time at the half hour. Students learn that there are 30 minutes in half an hour by counting the intervals around an analog clock that represent the minutes. Some students may count by ones, but others may notice a pattern and count by 5 or 10 (MP7). Although some students may point out that 30 is half of 60, this relationship is beyond grade-level expectations.
- [Activity #2: All the Time in the World](#)  
The purpose of this activity is for students to write time to the hour and half hour based on clocks with one or both hands.
- [Teacher presentation materials](#): materials from previous lesson
- [Slides](#)

**Checkpoints:** These documents for the above lessons provide teachers with a template for collecting data and information on student understanding of skills and concepts.

[Checkpoint C Teacher Instructions](#)

[Checkpoint C Table](#)

### **Investigate:**

[Lesson #16: Hard Times](#): Warm-Up, Activity 1 & 2

- The purpose of this lesson is for students to show and write times in hours and half hours.
- [Teacher presentation materials](#): materials from a previous lesson
- [Slides](#)

### **Create and Produce:**

[Lesson #16: Hard Times](#): Activity 3

- The purpose of this lesson is for students to show and write times in hours and half hours.
- [Teacher presentation materials](#): materials from a previous lesson
- [Slides](#)

The purpose of this activity is for students to write time to the hour and half-hour in order to fill in a Sunday schedule. Students fill in all blanks in a schedule, the time, the activity and the clock, to create their ideal Sunday schedule. The task gives an opportunity for students to relate time and telling time to their Sunday schedule (MP2).

Launch:

- Groups of 2
- “What are your favorite things to do on a Sunday?” (I like to go to the park, eat lunch, take a nap, and read a book.)
- 30 seconds: quiet think time
- 1 minute: partner discussion
- Share and record responses.

Activity:

- “Fill in the blanks for your ideal Sunday schedule. Then share with your partner.”
- 4 minutes: independent work time
- 2 minutes: partner discussion
- Monitor for a student who has an activity at 12:30.

**Communicate and Present:**

**Lesson 16, Activity 3 Synthesis**

- Invite previously identified students to share.
- Display students’ schedules, covering up the digital clocks and asking the class to tell the times.

**Reflection:**

**Lesson 16 Synthesis:**

“In this unit, we studied shapes, split shapes into equal parts, and learned to tell time. What did you like best in this unit? Why?”

**Additional Information:**

[Lesson #17: Center Day 3](#)

- The purpose of this lesson is for students to work with shapes and addition and subtraction.
- [Teacher presentation materials](#): two-color counters, Materials to copy: Which One Stage 2 Gameboard
- [Slides](#)

**Notes: Follow all lessons in numerical order.**

**Complete File with Resources and Task:**

[Task-Based Learning Plan Format for Unit 7 Topic 3](#)