







**Grade 1 Mathematics**  
**Unit 12: Three-Dimensional Solids**

Updated August 2024

Trimester	Unit Title	Recommended Instructional Days
3	Three-Dimensional Solids	8 - 10 days
<b>Domain: Geometry</b>		
<p><b>Strand:</b></p> <p> <b>1.G.A.1</b> Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.</p> <p> <b>1.G.A.2</b> Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right-rectangular prisms, right circular cones, and right-circular cylinders) to create a composite shape, and compose new shapes from the composite shape.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="331 847 554 902"> <b>Major Cluster</b></div> <div data-bbox="623 824 926 902"> <b>Supporting Cluster</b></div> <div data-bbox="1003 847 1276 902"> <b>Additional Cluster</b></div> <div data-bbox="1367 847 1755 902"> <b>Climate Change Opportunity</b></div> </div>		
<b>Progress Indicator:</b> ◇ Tests ◇ Homework / Classwork ◇ Projects ◇ Formative assessments ◇ Summative assessments ◇ Performance assessments		
<b>Mathematical Practices:</b>		
<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reason of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>		

**Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSL-CLKS within Unit**

**Essential Questions:**

Lesson 12.1: What is a three-dimensional shape?

Lesson 12.2: What shapes can you make when you combine three-dimensional shapes?

Lesson 12.3: What shapes can you make when you combine three-dimensional shapes?

Lesson 12.4: What happens when you take apart combined shapes?

Lesson 12.5: What is a two-dimensional shape?

**Essential Understandings:**

Lesson 12.1: Identify and describe three dimensional shapes.

Lesson 12.2: Combine three-dimensional shapes to make new shapes.

Lesson 12.3: Build new shapes from combined shapes.

Lesson 12.4: Take apart combined shapes.

Lesson 12.5: Find two-dimensional shapes on the flat surfaces of three-dimensional shapes.

**Vocabulary**

- cone
- cube
- curved surface
- cylinder
- defining attribute
- flat surface
- rectangular prism
- sphere

**Suggested Activity Description:**

Waggle, On the Spot Videos, Tier 2 and 3 Intervention Resources, Vocabulary Activities, Grab and Go Differentiation Kit, Explore and Guided/Independent Practice related to the NJSL, Essential Question Discussion and Check-In, Share and Show, Basic Skills Review, Manipulative Activity, Reteach Activity, Reading Strategies Activity, Making Connections, Multilingual Support, Performance Task, Enrich Activity, Exit Ticket

**Interdisciplinary Connections:**

**Science:**

**(Lesson 12.5)**

Materials: Two spheres

1. Tell children that the sun and Earth are both spheres, and that Earth moves around the sun. Use a model to demonstrate how Earth revolves around the sun.
2. Explain that the sun provides light and heat. Make a class list of things we can do to protect ourselves from the harmful effects of the sun, such as wearing sunscreen, a hat, and sunglasses, and not looking directly at the sun to prevent vision damage.

**Social Studies:**  
**(Lesson 12.5)**

Materials: Cans, boxes, recycling bin

1. Discuss the idea that all citizens are responsible for properly throwing away or recycling their trash. Point out that properly removing waste materials helps keep communities clean. Recycling trash also helps the environment.
2. Display objects that can be recycled, such as soup cans, cereal boxes, and tissue boxes. Tell children that they can put these objects in recycling bins. Discuss the shapes of the flat surfaces on the recyclable objects.

**Language Arts:**

1. April's First Word - (From the Differentiated Centers Kits Grab and Go)

**Spot Light On:** Define "include" with examples.

<p align="center"><b>Social and Emotional Learning:</b>  <i>Competencies</i></p>	<p align="center"><b>Social and Emotional Learning:</b>  <i>Sub-Competencies</i></p>
<p>SEL Competencies:</p> <ul style="list-style-type: none"> <li>• Self- awareness</li> <li>• Social Awareness</li> <li>• Self- Management</li> <li>• Relationship Skills</li> <li>• Responsible Decision-Making</li> </ul>	<ul style="list-style-type: none"> <li>• Recognizing the importance of self-confidence in handling daily tasks and challenges.</li> <li>• Demonstrate an awareness of the expectations for social interactions in a variety of ways.</li> <li>• Demonstrate an understanding of the need for mutual respect when viewpoints differ.</li> <li>• Identify and apply ways to persevere through alternative methods to achieve goals.</li> <li>• Utilize positive communication and social skills to interact effectively with others.</li> <li>• Develop, implement, and model effective problem solving and critical thinking skills.</li> </ul>

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<b>Assessments (Formative)</b> <i>To show evidence of meeting the standard/s, students will successfully engage within:</i>		<b>Assessments (Summative)</b> <i>To show evidence of meeting the standard/s, students will successfully complete:</i>	
<b>Formative Assessments:</b> • Teacher Observations • Exit Tickets • Quizzes • Self Assessments • Math Journals • Homework/Classwork • Teacher created assessments		<b>Benchmarks &amp; Summative Assessments:</b> Chapter/Unit Assessments • Standardized Tests • Project-based Assessments	
<b>Differentiated Student Access to Content:</b> <b>Teaching and Learning <i>Resources/Materials</i></b>			
<b>Core Resources</b>	<b>Alternate Core Resources</b> <i>IEP/504/At-Risk/ESL</i>	<b>ELL Core Resources</b>	<b>Gifted &amp; Talented Core Resources</b>
Go Math Workbook, Interactive Student Edition, ST MATH 60 minutes a week, Waggle, Math on the Spot Videos, iReady, Khan Academy, Illustrative Mathematics, Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, Achieve the Core, Desmos, RTI	Reteaching worksheets, Skill building workbook, Math manipulatives, iTools, Leveled practice worksheets	Multilingual glossary, eGlossary, Multilingual Activities on ED, Vocabulary Cards, Success for English Learners worksheets, Leveled Strategies for English Learners, Linguistic Support	ST MATH special projects, Enrichment worksheets, Art of Problem Solving, Leveled assessments
<b>Supplemental Resources</b>			
<b>Technology:</b> • Chromebooks • Online math manipulatives			
<b>Other:</b> • Google Classroom, Google Meets, Schoology, Interactive Workbooks • Illustrative Mathematics • insidemathematics.org • National Library of Virtual Manipulatives			
<b>Differentiated Student Access to Content:</b> <b>Recommended <i>Strategies &amp; Techniques</i></b>			
<b>Core Resources</b>	<b>Alternate Core Resources</b> <i>IEP/504/At-Risk/ESL</i>	<b>ELL Core Resources</b>	<b>Gifted &amp; Talented Core</b>
Deliver instruction utilizing varied learning styles including audio, visual,	Utilize a multi-sensory (VAKT) approach during instruction,	Extend time requirements, preferred seating, positive reinforcement, check	Create an enhanced set of introductory activities, integrate

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and tactile/kinesthetic, provide individual instruction as needed, modify assessments and/or rubrics, repeat	provide alternate presentations of skills by varying the method (repetition, simple explanations, additional examples, modeling, etc.), modify test content and/or format, allow students to retake test for additional credit, provide additional times and preferential seating as needed, review, restate and repeat directions, provide study guides, and/or break assignments into segments of shorter tasks.	often for understanding/review, oral/visual directions/prompts when necessary, supplemental materials including use of an online bilingual dictionary, and modified assessment and/or rubric.	active teaching/learning opportunities, incorporate authentic components, propose interest-based extension activities, and connect student to related
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<b>NJSLS CAREER READINESS, LIFE LITERACIES &amp; KEY SKILLS</b>	<b>Disciplinary Concept(s): Creativity and Innovation</b>	
	<b>Core Ideas:</b>	Collaboration with individuals with diverse perspectives can result in new ways of thinking and/or innovative solutions
	<b>Performance Expectation/s:</b>	<b>9.4.5.CI.3:</b> Participate in a brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity
	<b>Career Readiness, Life Literacies, &amp; Key Skills Practices</b>	
	<p>Act as a responsible and contributing community member and employee.            Attend to financial well-being.            Consider the environmental, social and economic impacts of decisions.            Demonstrate creativity and innovation.            Utilize critical thinking to make sense of problems and persevere in solving them.            Model integrity, ethical leadership and effective management.            Plan education and career paths aligned to personal goals.            Use technology to enhance productivity, increase collaboration and communicate effectively.            Work productively in teams while using cultural/global competence.</p>	

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New Jersey Legislative Statutes and Administrative Code  
(place an "X" before each law/statute if/when present within the curriculum map)

Amistad Law: <i>N.J.S.A. 18A 52:16A-88</i>	Holocaust Law: <i>N.J.S.A. 18A:35-28</i>	LGBT and Disabilities Law: <i>N.J.S.A. 18A:35-4.35</i>	<b>X</b>	Diversity & Inclusion: <i>N.J.S.A. 18A:35-4.36a</i>	Standards in Action: <i>Climate Change</i>
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