

Grade 3

**Unit 3: Motion**

New Jersey Student Learning Standards

Established: 2016-2017

Revised: 2018-2019

Revised: 2019-2020

Revised: 2020-2021

**Revised: 2022-2023**

Trimester		Unit Title	Recommended Instructional Days
2		Unit 3: Motion	30 Days
<b>NJSLS - Science: Title</b>	<b>NJSLS - Science: Performance Expectations</b>	<b>Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSLS-S within Unit</b>	
Physical Science	3-PS2-1 3-PS2-2		
<b>FOUNDATION Disciplinary: Core Idea</b>	<b>FOUNDATION Disciplinary: Statement</b>		
<ul style="list-style-type: none"> <li>Forces and Motion</li> </ul>	Understand that each force acts on one particular object and has both strength and a direction.	<p><b>Essential Question/s:</b></p> <ul style="list-style-type: none"> <li>What is motion?</li> <li>What are some patterns in motion?</li> </ul> <p><b>Activity Description:</b></p> <ul style="list-style-type: none"> <li>“Motion Detectives”- Unit Project</li> <li><b>Required Performance Task - “Slow Walk, Fast Walk” - Hands-On Activity (Lesson 1)</b></li> <li>“Tick Tock”- Hands-On Activity (Lesson 2)</li> <li>“A Game of Skill and motion” - Extra Hands-On Activity (Lesson 2)</li> <li>“Patterns of Motion” - You Solve It-Design a Solution to a Problem: Virtual Lab <b>TECH</b></li> <li><b>Take It Further: Discover More</b> - Careers in Engineering (SE &amp; TE)</li> </ul>	
<b>FOUNDATION Science and Engineering Practices: Core Idea</b>	<b>FOUNDATION Science and Engineering Practices: Statement</b>		
<ul style="list-style-type: none"> <li>Planning and Carrying Out Investigations</li> <li>Scientific Knowledge is Based on Empirical Evidence</li> <li>Engaging in Argument from Evidence</li> <li>Obtaining, Evaluating, and Communicating Information</li> <li>Asking Questions and Defining Problems</li> </ul>	Define a simple design problem, plan and conduct an investigation, and generate and compare multiple solutions.		

<p><b>FOUNDATION</b> <b>Crosscutting Concepts:</b> <i>Core Idea</i></p>	<p><b>FOUNDATION</b> <b>Crosscutting Concepts:</b> <i>Statement</i></p>	<p>● <b>Take It Further: Discover More</b> - People in Engineering (SE &amp; TE)</p>									
<ul style="list-style-type: none"> <li>● Patterns</li> <li>● Influence of Engineering, Technology, and Science on Society and the Natural World</li> <li>● Science is a Human Endeavor</li> <li>● Cause and Effect</li> </ul>	<p>Use patterns of change to make predictions and gain a better understanding of cause and effect relationships. Gain knowledge of relevant scientific concepts as science affects everyday life and use this knowledge to create and improve technology.</p>	<p><b>Interdisciplinary Connections - English Language Arts:</b>  <b>W.3.2-</b> Write informative/explanatory texts to examine a topic and convey ideas and information clearly.  <b>W.3.7-</b> Conduct short research projects that build knowledge about a topic  <b>W.3.8</b> - Recall information from experiences  <b>RI.3.1</b> - Ask and answer questions to demonstrate understanding of a text  <b>SL.3.3-</b> Ask and answer questions about information from a speaker.</p>									
<p><b>Social and Emotional Learning:</b> <i>Competencies</i></p>	<p><b>Social and Emotional Learning:</b> <i>Sub-Competencies</i></p>	<p><b>Interdisciplinary Connections - Mathematics:</b></p>									
<ul style="list-style-type: none"> <li>● Self-Awareness</li> <li>● Self-Management</li> <li>● Social Awareness</li> <li>● Responsible Decision-Making</li> <li>● Relationship Skills</li> </ul>	<ul style="list-style-type: none"> <li>● Recognize the importance of self-confidence in handling daily tasks and challenges</li> <li>● Recognize the skills needed to establish and achieve personal and educational goals</li> <li>● Demonstrate an understanding of the need for mutual respect when viewpoints differ</li> <li>● Develop, implement, and model effective problem-solving and critical thinking skills</li> <li>● Utilize positive communication and social skills to interact effectively with others</li> </ul>	<p><b>MP.2-</b> Reason abstractly and quantitatively  <b>MP.5-</b> Use appropriate tools strategically.  <b>3.NF.A.3-</b> Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.  <b>3.OA.D.8-</b> Solve problems involving the four operations, and identify and explain patterns in arithmetic.  <b>3.MD.A.1-</b> Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.</p> <p style="text-align: center;"><b>Science Dimensions/Go Math Correlations</b></p> <table border="1" data-bbox="1077 1044 1892 1390"> <thead> <tr> <th data-bbox="1077 1044 1350 1170"> <p><b>HMH Science Dimensions Math Content</b></p> </th> <th data-bbox="1352 1044 1623 1170"> <p><b>HMH Science Dimensions Pages</b></p> </th> <th data-bbox="1625 1044 1892 1170"> <p><b>Go Math Aligned Lessons</b></p> </th> </tr> </thead> <tbody> <tr> <td data-bbox="1077 1172 1350 1295"> <p>Lesson 1: Model Addition, Subtraction, &amp; Multiplication</p> </td> <td data-bbox="1352 1172 1623 1295"> <p>Pages 144-145</p> </td> <td data-bbox="1625 1172 1892 1295"> <p>Lessons 1.12, 3.4, 4.10</p> </td> </tr> <tr> <td data-bbox="1077 1297 1350 1390"> <p>Lesson 2: Time (To the minute; intervals)</p> </td> <td data-bbox="1352 1297 1623 1390"> <p>Pages 165, 172</p> </td> <td data-bbox="1625 1297 1892 1390"> <p>Lessons 10.1, 10.3, 10.4, 10.5</p> </td> </tr> </tbody> </table>	<p><b>HMH Science Dimensions Math Content</b></p>	<p><b>HMH Science Dimensions Pages</b></p>	<p><b>Go Math Aligned Lessons</b></p>	<p>Lesson 1: Model Addition, Subtraction, &amp; Multiplication</p>	<p>Pages 144-145</p>	<p>Lessons 1.12, 3.4, 4.10</p>	<p>Lesson 2: Time (To the minute; intervals)</p>	<p>Pages 165, 172</p>	<p>Lessons 10.1, 10.3, 10.4, 10.5</p>
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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> <ul style="list-style-type: none"> <li>Apply what you know; Lesson check; Self check; Evidence notebooks</li> </ul>		<b>Summative Assessments:</b> <ul style="list-style-type: none"> <li>End of lesson quizzes; End of unit assessment</li> </ul> <b>Alternative</b> <ul style="list-style-type: none"> <li>Performance Assessment (back of assessment guide) Lab Practical</li> </ul> <b>Suggested Writing Prompts:</b> <ul style="list-style-type: none"> <li>When thinking of force and motion you also have to think about cause &amp; effect. Read the paired texts on ReadWorks.org -“Using Technology to Help Animals.” Write an informational essay that explains how technology is helping animals in both of the articles. Describe at least two cause and effect scenarios in the articles.</li> </ul>	
<b>Differentiated Student Access to Content: Teaching and Learning Resources/Materials</b>			
Core Resources	Alternate Core Resources <i>IEP/504/At-Risk/ESL</i>	ELL Core Resources	Gifted & Talented Core Resources
<ul style="list-style-type: none"> <li>Evidence Notebook</li> <li>Equipment Kit</li> <li>On Level Readers</li> <li>Online Simulations</li> <li>Dimensions TE</li> <li>Dimensions SE</li> </ul>	In addition to Core Resources: <ul style="list-style-type: none"> <li>Extra Support Readers</li> <li>Science and Engineering Practices Online Handbook</li> </ul>	In addition to Core Resources: <ul style="list-style-type: none"> <li>Science Thesaurus</li> <li>Extra Support Readers</li> <li>Science and Engineering Practices Online Handbook</li> </ul>	In addition to Core Resources: <ul style="list-style-type: none"> <li>Enrichment Readers</li> </ul>
<b>Supplemental Resources</b>			

<p><b>Technology:</b></p> <ul style="list-style-type: none"> <li>● Chromebook</li> <li>● SMARTBoard</li> </ul> <p><b>Ed Science Platform:</b></p> <ul style="list-style-type: none"> <li>● Digital Assessments</li> <li>● Digital Performance Tasks</li> <li>● You Solve It Simulations</li> <li>● Google Expeditions</li> <li>● Student eBook</li> <li>● Video-Based Projects</li> <li>● Science Tools</li> <li>● Online Glossary</li> <li>● National Geographic</li> </ul>			
<p><b>Differentiated Student Access to Content: Recommended <i>Strategies &amp; Techniques</i></b></p>			
Core Resources	Alternate Core Resources <i>IEP/504/At-Risk/ESL</i>	ELL Core Resources	Gifted & Talented Core
<ul style="list-style-type: none"> <li>● Deliver instruction utilizing varied learning styles including audio, visual, and tactile/kinesthetic</li> <li>● Provide individual instruction as needed</li> </ul>	<ul style="list-style-type: none"> <li>● Utilize a multi-sensory (VAKT) approach during instruction</li> <li>● Provide alternate presentations of skills by varying the method (repetition, simple explanations, additional examples, modeling, etc.)</li> <li>● Modify test content and/or format</li> <li>● Allow students to retake test for additional credit,</li> <li>● Provide additional times and preferential seating</li> </ul>	<ul style="list-style-type: none"> <li>● Extend time requirements</li> <li>● Preferred seating</li> <li>● Positive reinforcement</li> <li>● Check often for understanding/review</li> <li>● Oral/visual directions/prompts when necessary</li> <li>● Supplemental materials including use of online bilingual dictionaries, and modified assessment and/or rubric.</li> </ul>	<ul style="list-style-type: none"> <li>● Create an enhanced set of introductory activities</li> <li>● Integrate active teaching/learning opportunities</li> <li>● Incorporate authentic components</li> <li>● Propose interest-based extension activities</li> <li>● Connect student to related talent development opportunities</li> </ul>

	<p>as needed,</p> <ul style="list-style-type: none"> <li>• Review, restate and repeat directions</li> <li>• Provide study guides, and/or break assignments into segments of shorter tasks</li> </ul>		
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<p><b>NJSLS CAREER READINESS, LIFE LITERACIES &amp; KEY SKILLS</b></p>	<p><b>Disciplinary Concept:</b></p> <ol style="list-style-type: none"> <li>1. Career Awareness &amp; Planning</li> <li>2. Creativity and Innovation</li> <li>3. Critical Thinking &amp; Problem-Solving</li> <li>4. Global &amp; Cultural Awareness</li> <li>5. Information and Media Literacy</li> <li>6. Technology Literacy</li> </ol>		
	<p><i>Core Ideas:</i></p>	<ul style="list-style-type: none"> <li>• An individual’s passions, aptitude and skills can affect his/her employment and earning potential.</li> <li>• Collaboration with individuals with diverse perspectives can result in new ways of thinking and/or innovative solutions</li> <li>• Curiosity and a willingness to try new ideas (intellectual risk-taking) contributes to the development of creativity and innovation skills.</li> <li>• The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.</li> <li>• Individuals from different cultures may have different points of view and experiences.</li> <li>• Culture and geography can shape an individual’s experiences and perspectives.</li> <li>• Specific situations require the use of relevant sources of information.</li> <li>• Different digital tools have different purposes.</li> </ul>	

		<ul style="list-style-type: none"> <li>● Collaborating digitally as a team can often develop a better artifact than an individual working alone.</li> </ul>
	<i>Performance Expectation/s:</i>	<ul style="list-style-type: none"> <li>● 9.2.5.CAP.1: Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.</li> <li>● 9.2.5.CAP.3: Identify qualifications needed to pursue traditional and non-traditional careers and occupations.</li> <li>● 9.2.5.CAP.4: Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements</li> <li>● 9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change</li> <li>● 9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).</li> <li>● 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).</li> <li>● 9.4.5.GCA.1: Analyze how culture shapes individual and community perspectives and points of view (e.g., 1.1.5.C2a, RL.5.9, 6.1.5.HistoryCC.8).</li> <li>● 9.4.5.IML.6: Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions (e.g., RI.5.7, 6.1.5.HistoryCC.7, 7.1.NM. IPRET.5).</li> <li>● 9.4.5.TL.3: Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols.</li> <li>● 9.4.5.TL.5: Collaborate digitally to produce an artifact (e.g., 1.2.5CR1d).</li> </ul>

	<b>Career Readiness, Life Literacies, &amp; Key Skills Practices</b>
	<ul style="list-style-type: none"> <li>● Act as a responsible and contributing community member and employee.</li> <li>● Consider the environmental, social and economic impacts of decisions.</li> <li>● Demonstrate creativity and innovation.</li> <li>● Utilize critical thinking to make sense of problems and persevere in solving them.</li> <li>● Model integrity, ethical leadership and effective management.</li> <li>● Plan education and career paths aligned to personal goals.</li> <li>● Use technology to enhance productivity, increase collaboration and communicate effectively.</li> <li>● Work productively in teams while using cultural/global competence.</li> </ul>

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>	X	Diversity & Inclusion: <i>N.J.S.A. 18A:35-4.36a</i>	Standards in Action: <i>Climate Change</i>