

**MOSCOW SCHOOL DISTRICT**  
**CURRICULUM GUIDE**  
**Subject/Course: Science**  
**Grade 1**

**Standard 1: Nature of Science**

Students explore the process of scientific investigation through observations and data collection, using standard and non-standard units of measurement. Students follow multi-step instructions and work with others.

<i>Goal – The student will:</i>	<i>Objectives (to be reached by the end of first grade)</i>	<i>Samples of Applications</i>	<i>Curriculum Materials (including technological resources)</i>	<i>Key Vocabulary for Standard 1</i>
<b>Goal 1.1: Understand Systems, Order, and Organization</b> - No objectives at this grade level		<ul style="list-style-type: none"> <li>Daily weather graph</li> </ul>	<ul style="list-style-type: none"> <li>Solids and Liquids (FOSS)</li> <li>Trade books</li> </ul>	
<b>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations</b>	<ul style="list-style-type: none"> <li>1.S.1.2.1 Make observations, collect data, and use data. (543.01.a)</li> </ul>	<ul style="list-style-type: none"> <li>Observe the differences / similarities between solids, liquids and gas.</li> </ul>		
<b>Goal 1.3: Understand Constancy, Change, and Measurement</b>	<ul style="list-style-type: none"> <li>1.S.1.3.1 Measure in both standard and non-standard units. (543.02.b)</li> </ul>	<ul style="list-style-type: none"> <li>(Math Packet) Measure with rulers, paper clips, etc.</li> </ul>		
<b>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</b>	<ul style="list-style-type: none"> <li>1.S.1.4.1 Explain the concepts of past, present, and future. (543.03.a)</li> </ul>	<ul style="list-style-type: none"> <li>Life cycles of plants, animals</li> <li>Daily calendar activities</li> </ul>		
<b>Goal 1.5: Understand Concepts of Form and Function</b> - No objectives at this grade level.				
<b>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</b>	<ul style="list-style-type: none"> <li>1.S.1.6.1 Make and record observations. (544.01.a)</li> </ul>	<ul style="list-style-type: none"> <li>Plant journals</li> <li>Germ experiment</li> <li>Identify animal hair</li> </ul>		
<b>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</b>	<ul style="list-style-type: none"> <li>1.S.1.7.1 Demonstrate cooperation and interaction skills. (553.01.a)</li> </ul>	<ul style="list-style-type: none"> <li>Daily social and classroom rules and playground rules</li> <li>Weekly lessons from counselor</li> </ul>		
<b>Goal 1.8: Understand Technical Communication</b>	<ul style="list-style-type: none"> <li>1.S.1.8.1 Follow multi-step instructions. (553.02a)</li> </ul>	<ul style="list-style-type: none"> <li>Daily classroom rotations</li> <li>Art activities</li> <li>FOSS kit experiments</li> </ul>		

**Standard 2: Physical Science**

Students describe properties of common objects and how movement is a change of position.

<i>Goal – The student will:</i>	<i>Objectives (to be reached by the end of first grade)</i>	<i>Samples of Applications</i>	<i>Curriculum Materials (including technological resources)</i>	<i>Key Vocabulary for Standard 2</i>
<b>Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions</b>	<ul style="list-style-type: none"> <li>1.S.2.1.1 Describe properties of objects. (545.01.a)</li> </ul>	<ul style="list-style-type: none"> <li>Solids, liquids and gases similarities and differences</li> <li>Use FOSS vocabulary</li> </ul>	<ul style="list-style-type: none"> <li>Solids and Liquids (FOSS)</li> </ul>	
<b>Goal 2.2: Understand Concepts of Motion and Forces</b>	<ul style="list-style-type: none"> <li>1.S.2.2.1 Describe the position and motion of objects. (ex. revolve, rotate, at rest, float, and fall) (545.02.a)</li> </ul>	<ul style="list-style-type: none"> <li>Sink and float experiments</li> <li>Seasons, plants</li> <li>Day and night</li> </ul>		
<b>Goal 2.3: Understand the Total Energy in the Universe is Constant - No objectives at this grade level.</b>				
<b>Goal 2.4: Understand the Structure of Atoms - No objectives at this grade level.</b>				
<b>Goal 2.5: Understand Chemical Reactions - No objectives at this grade level.</b>				

**Standard 3: Biology**

Students describe the life cycles of living things and how they survive in their environment.

<i>Goal – The student will:</i>	<i>Objectives (to be reached by the end of first grade)</i>	<i>Samples of Applications</i>	<i>Curriculum Materials (including technological resources)</i>	<i>Key Vocabulary for Standard 3</i>
<b>Goal 3.1: Understand the Theory of Biological Evolution</b>	<ul style="list-style-type: none"> <li>1.S.3.1.1 Describe the life cycle of a plant (seed, growth, reproduction, death). (547.01.a)</li> <li>1.S.3.1.2 Describe the life cycle of an animal (birth, development, reproduction, death). (547.01.a)</li> </ul>	<ul style="list-style-type: none"> <li>Plant a seed, observe it growing – plant cycle</li> <li>Animal life cycles and animal report</li> </ul>	Trade Books Ant Habitats	
<b>Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems</b>	<ul style="list-style-type: none"> <li>1.S.3.2.1 State that living things need food to survive, (548.01.a)</li> </ul>	<ul style="list-style-type: none"> <li>Class discussion on living and non-living things</li> <li>Attributes of living things</li> </ul>		
<b>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things - No objectives at this grade level.</b>				

**Standard 4: Earth and Space Systems**

Students describe characteristics for each season and the cycle of the seasons.

<i>Goal – The student will:</i>	<i>Objectives (to be reached by the end of first grade)</i>	<i>Samples of Applications</i>	<i>Curriculum Materials (including technological resources)</i>	<i>Key Vocabulary for Standard 4</i>
<b>Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems</b>	<ul style="list-style-type: none"> <li>1.S.4.1.1 Identify the four seasons and their characteristics for a local region. (549.01.a)</li> </ul>	<ul style="list-style-type: none"> <li>Daily calendars and weather boards</li> <li>Life cycles of animals and plants</li> </ul>	<i>The Reason for the Seasons</i> trade book	
<b>Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System -</b> No objectives at this grade level.				

**Standard 5: Personal and Social Perspectives; Technology**

Students describe characteristics of the local environment.

<i>Goal – The student will:</i>	<i>Objectives (to be reached by the end of first grade)</i>	<i>Samples of Applications</i>	<i>Curriculum Materials (including technological resources)</i>	<i>Key Vocabulary for Standard 5</i>
<b>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</b>	<ul style="list-style-type: none"> <li>1.S.5.1.1 Identify the characteristics of local natural environments (playground, backyard.) (551.01.a)</li> </ul>	<ul style="list-style-type: none"> <li>Maps of community, neighborhood, and playground</li> <li>Landforms / recycling / weather</li> </ul>	Foss Kits	
<b>Goal 5.2: Understand the Relationship between Science and Technology</b> No objectives at this grade level.				
<b>Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them -</b> No objectives at this grade level.				