

Oregon and National Science Content Standards: Grade 8

Curriculum Activities	Oregon Science Content Standards	National Science Content Standards
Week 4: Dr. Pepper and Mentos Demonstration, Magic Candle Demonstration	8.3S.1 Based on observations and science principles, propose questions or hypotheses that can be examined through scientific investigation.	NS.5-8.1 As a result of activities in grades 5-8, all students should develop: <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry
Week 5: Introduction to Science Inquiry: Cars and Ramps	8.3S.1 Based on observations and science principles, propose questions or hypotheses that can be examined through scientific investigation. Design and conduct a scientific investigation that uses appropriate tools, techniques, independent and dependent variables, and controls to collect relevant data. 8.3S.2 Organize, display, and analyze relevant data, construct an evidence-based explanation of the results of a scientific investigation, and communicate the conclusions including possible sources of error. Suggest new investigations based on analysis of results.	NS.5-8.1 As a result of activities in grades 5-8, all students should develop: <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry
Week 6: Writing Procedures Week 7: "Comeback Can" Races Week 8: More Group Investigations	8.3S.1 Based on observations and science principles, propose questions or hypotheses that can be examined through scientific investigation. Design and conduct a scientific investigation that uses appropriate tools, techniques, independent and dependent variables, and controls to collect relevant data.	NS.5-8.1 As a result of activities in grades 5-8, all students should develop: <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry
Week 9: Managing Data and Bar Graphs Week 10: Managing Data and Line Graphs	8.3S.2 Organize, display, and analyze relevant data, construct an evidence-based explanation of the results of a scientific investigation, and communicate the conclusions including possible sources of error. Suggest new investigations based on analysis of results.	NS.5-8.1 As a result of activities in grades 5-8, all students should develop: <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry
Week 11: Investigative Questions Week 12: Brainstorming Topics and Generating Questions Week 13: Polishing Questions Weeks 17 & 18: Investigation Design	8.3S.1 Based on observations and science principles, propose questions or hypotheses that can be examined through scientific investigation. Design and conduct a scientific investigation that uses appropriate tools, techniques, independent and	NS.5-8.1 As a result of activities in grades 5-8, all students should develop: <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry

	<p>dependent variables, and controls to collect relevant data.</p> <p>8.4D.1 Define a problem that addresses a need, and using relevant science principles investigate possible solutions given specified criteria, constraints, priorities, and trade-offs.</p> <p>8.4D.2 Design, construct, and test a proposed engineering design solution and collect relevant data. Evaluate a proposed design solution in terms of design and performance criteria, constraints, priorities, and tradeoffs. Identify possible design improvements.</p>	
<p>Week 20: Preliminary Data Collection</p> <p>Week 21: Developing a Data Format and Display</p>	<p>8.3S.2 Organize, display, and analyze relevant data, construct an evidence-based explanation of the results of a scientific investigation, and communicate the conclusions including possible sources of error. Suggest new investigations based on analysis of results.</p>	<p>NS.5-8.1 As a result of activities in grades 5-8, all students should develop:</p> <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry
<p>Week 22: Investigations Begin</p>	<p>8.3S.1 Based on observations and science principles, propose questions or hypotheses that can be examined through scientific investigation.</p> <p>Design and conduct a scientific investigation that uses appropriate tools, techniques, independent and dependent variables, and controls to collect relevant data.</p>	<p>NS.5-8.1 As a result of activities in grades 5-8, all students should develop:</p> <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry
<p>Week 24: Transforming Investigations into Displays</p> <p>Week 25: Work on Display Boards</p> <p>Weeks 27 & 28: Work Continues on Investigations and Displays</p>	<p>8.3S.2 Organize, display, and analyze relevant data, construct an evidence-based explanation of the results of a scientific investigation, and communicate the conclusions including possible sources of error. Suggest new investigations based on analysis of results.</p>	<p>NS.5-8.1 As a result of activities in grades 5-8, all students should develop:</p> <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry
<p>Week 26: Analyzing Results</p>	<p>8.3S.2 Suggest new investigations based on analysis of results.</p>	<p>NS.5-8.1 As a result of activities in grades 5-8, all students should develop:</p> <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry