

Lesson Name	Level	Page Number	Content Area Standard	Maryland 7 th Grade Content Area Standards
How Does Volume Affect Heat Dissipation?	Beginner	2	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data. ▪ Collect data using equipment, such as a centimeter ruler (length), spring scale (weight), balance (mass), Celsius thermometer (temperature), graduated cylinder (liquid volume), and stopwatch (elapsed time).
What is the Chance?	Beginner	7	Math	<p>Indicator Statement: Determine the probability of one simple event comprised of equally likely outcomes</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Express the probability of an event as a fraction, a decimal, or a percent
Do You Know Your State Facts?	Beginner	12		

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Do You Have the Cents?	Beginner	17		
How Many Syllables Are the Most Frequent?	Beginner	22		
Which Holidays and Celebrations Do You Observe?	Beginner	27	Social Studies	<p>Indicator Statement: Analyze how diverse cultures shape a pluralistic society</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Identify cultural groups within a modern world region

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How Many Terms Did the Presidents Serve?	Beginner	32		
When Is Your Birthday?	Beginner	37		
How Are You Feeling?	Beginner	42	Math	Indicator Statement: Organize and display data

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What's the Weather?	Beginner	47	Math	<p>Indicator Statement: Organize and display data</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Organize and display data to make circle graphs
Temperature Over Time	Beginner	52	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data. ▪ Collect data using equipment, such as a centimeter ruler (length), spring scale (weight), balance (mass), Celsius thermometer (temperature), graduated cylinder (liquid volume), and stopwatch (elapsed time).
How Long is Your Shadow?	Beginner	57	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data. ▪ Collect data using equipment, such as a centimeter ruler (length), spring scale (weight), balance (mass), Celsius thermometer (temperature), graduated cylinder (liquid volume), and stopwatch (elapsed time).

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How Do You Spend Your Day?	Beginner	62	Math	<p>Indicator Statement: Organize and display data</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Organize and display data to make circle graphs
How Fast is it Growing?	Beginner	67	Science	<p>Indicator Statement: Formulate and develop hypotheses that can be tested in well-designed investigations.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Record and explain observations of physical phenomena that may be used to develop a hypothesis. ▪ Develop scientifically testable questions that can be answered through a well-designed investigation. ▪ Develop hypotheses that can be tested through a well-designed investigation.
Where Is it the Hottest Today?	Beginner	72	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s): Design and construct tables, charts, databases, spreadsheets, and graphs to display data.</p>

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What's the Most Frequent Candy Color?	Beginner	77	Science	<p>Knowledge of Statistics: Students will collect, organize, display, analyze, or interpret data to make decisions or predictions.</p> <p>Indicator Statement: Organize and display data</p>
Relative Planet Sizes	Beginner	82	Science	<p>Indicator Statement: Analyze data to identify possible explanations for trends.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe and compare trends in sets of data. ▪ Identify and describe possible relationships among sets of data.
Investigating Daylight Hours in Your Town	Beginner	87	Science	<p>Indicator Statement: Analyze data to identify possible explanations for trends.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe and compare trends in sets of data. ▪ Identify and describe possible relationships among sets of data.

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Which Is the Biggest Dinosaur?	Beginner	92	Science	<p>Indicator Statement: Analyze data to identify possible explanations for trends.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe and compare trends in sets of data. ▪ Identify and describe possible relationships among sets of data.
How Many Steps?	Beginner	97		<p>Indicator Statement: Describe a set of data</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Compare measures of central tendency (mean, median, mode) to determine which is most appropriate
What Are the Biggest Elevation Extremes?	Intermediate	2		

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Length of Daylight Across Hemispheres	Intermediate	7	Science	<p>Indicator Statement: Analyze data to identify possible explanations for trends.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe and compare trends in sets of data. ▪ Identify and describe possible relationships among sets of data.
How Does Our Class Compare?	Intermediate	12	Math	<p>Indicator Statement: Organize and display data</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Organize and display data to make circle graphs
Creating Your Own Worksheets	Intermediate	17	Math	<p>Indicator Statement: Analyze number relations and compute</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Add, subtract, multiply, and divide integers

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Rounding Random Numbers	Intermediate	22		
Which Pizza Is the Best Value?	Intermediate	27	Math	<p>Indicator Statement: Estimate and apply measurement formulas</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Estimate and determine the area
Graphing Parts of Speech	Intermediate	32	Math	<p>Indicator Statement: Organize and display data</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Organize and display data to make circle graphs

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How Fast Can You Recover?	Intermediate	37	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data. ▪ Collect data using equipment, such as a centimeter ruler (length), spring scale (weight), balance (mass), Celsius thermometer (temperature), graduated cylinder (liquid volume), and stopwatch (elapsed time). ▪ Select the equipment appropriate for the quantity being measured.
Are Your Taste and Smell Aligned?	Intermediate	42	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data. ▪ Collect data using equipment, such as a centimeter ruler (length), spring scale (weight), balance (mass), Celsius thermometer (temperature), graduated cylinder (liquid volume), and stopwatch (elapsed time). ▪ Select the equipment appropriate for the quantity being measured.
Working With Polygons	Intermediate	47	Math	<p>Indicator Statement: Estimate and apply measurement formulas</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Estimate and determine the area of quadrilaterals

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Identifying Geometric Figures	Intermediate	52		
What Angle Hits the Ball the Farthest?	Intermediate	57	Math	<p>Indicator Statement: Locate points on a number line and in a coordinate graph</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Graph ordered pairs in a coordinate plane
Are Presidents as Mortal as You?	Intermediate	62	Science	<p>Indicator Statement: Analyze data to identify possible explanations for trends.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe and compare trends in sets of data. ▪ Identify and describe possible relationships among sets of data.

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How Literate Are We?	Intermediate	67	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data.
Who Has the Most Coast?	Intermediate	72	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Use metric units with numbers when making and recording observations.
Extreme Continents	Intermediate	77	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data.

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Can a Day Be Longer than a Year?	Intermediate	82	Science	<p>Indicator Statement: Analyze data to identify possible explanations for trends.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe and compare trends in sets of data. ▪ Identify and describe possible relationships among sets of data.
Where's the Tide?	Intermediate	87	Science	<p>Indicator Statement: Analyze data to identify possible explanations for trends.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe and compare trends in sets of data. ▪ Identify and describe possible relationships among sets of data.
How Much Time Since...?	Intermediate	92		

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Can You Make the Change?	Intermediate	97		
What's Your Age and Weight on Pluto?	Challenging	2	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data.
How Accurately Can We Measure Volume?	Challenging	7	Science	<p>Indicator Statement: Communicate findings from hands-on investigations and text resources.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Communicate orally or in writing a description of an investigation that includes: <ul style="list-style-type: none"> ▪ The question investigated ▪ The results of the investigation ▪ The hypothesis made ▪ An explanation of the results using supporting evidence

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Tracking Your Weather	Challenging	12	Science	<p>Indicator Statement: Analyze data to identify possible explanations for trends.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe and compare trends in sets of data. ▪ Identify and describe possible relationships among sets of data.
The In-Out Box	Challenging	17	Math	<p>Indicator Statement: Identify, describe, extend, and create linear patterns and functions</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Identify and extend an arithmetic sequence represented as a function table ▪ Identify and extend a geometric sequence ▪ Describe how a change in one variable in a linear function affects the other variable in a table of values
Did You Earn that Run?	Challenging	22	Math	<p>Indicator Statement: Describe a set of data</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Compare measures of central tendency (mean, median, mode) to determine which is most appropriate

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Magic Squares	Challenging	27		
History of Minimum Wage	Challenging	32	Math	<p>Indicator Statement: Analyze linear relationships</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe the rate of change of a linear relationship by a table of values and a graph
Currency Exchange Rates	Challenging	37		

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How Can We Turn a Gallon into Liters?	Challenging	42	Math	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Use metric units with numbers when making and recording observations.
How Fast Are We Growing?	Challenging	47	Math	<p>Indicator Statement: Analyze linear relationships</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Describe the rate of change of a linear relationship by a table of values and a graph
How Dense Is Your Stuff?	Challenging	52	Science	<p>Indicator Statement: Describe and compare similarities and differences among objects and scientific concepts.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Identify and describe similarities and differences among objects. ▪ Explain key ideas of scientific concepts. ▪ Identify and describe similarities and differences among related scientific concepts.

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What's Your Reaction Time?	Challenging	57	Science	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data. ▪ Collect data using equipment, such as a centimeter ruler (length), spring scale (weight), balance (mass), Celsius thermometer (temperature), graduated cylinder (liquid volume), and stopwatch (elapsed time). ▪ Select the equipment appropriate for the quantity being measured.
Graphing Quadratic Equations Using the (X,Y) Scatter Chart	Challenging	62		
Charting Circles	Challenging	67	Math	<p>Indicator Statement: Estimate and apply measurement formulas</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Estimate pi using physical models

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Working with Circles	Challenging	72	Math	<p>Indicator Statement: Estimate and apply measurement formulas</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Estimate pi using physical models
What's Using the Electricity in Your House?	Challenging	77	Math	<p>Indicator Statement: Organize and display data</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Organize and display data to make circle graphs
Graphing Linear Equations	Challenging	82	Math	<p>Indicator Statement: Locate points on a number line and in a coordinate graph</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Graph linear equations with one operation in a coordinate plane

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Who's Using all the Electricity?	Challenging	87		
What's the Oldest Country?	Challenging	92		
What's the Most Expensive by the Pound?	Challenging	97	Math	<p>Indicator Statement: Collect, organize, and accurately display data in ways others can verify using appropriate instruments.</p> <p>Objective(s):</p> <ul style="list-style-type: none"> ▪ Design and construct tables, charts, databases, spreadsheets, and graphs to display data.

