

Exploring the Extreme			
2006 Mathematics			
Grade Level Expectations			
Delaware Mathematics			
Grade K			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	DE	MA.K. 4.1.1	Gather and report data about oneself and familiar surroundings using teacher defined categories (preference out of two choices)
Changing the Center of Gravity Using Moment Arms	DE	MA.K. 4.1.1	Gather and report data about oneself and familiar surroundings using teacher defined categories (preference out of two choices)
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2006 Mathematics			
Grade Level Expectations			
Delaware Mathematics			
Grade 2			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	DE	MA.2. 4.1.1	Collect (e.g., observe, count, or survey) categorical data to answer a question posed by the teacher or students
Changing the Center of Gravity Using Moment Arms	DE	MA.2. 4.1.1	Collect (e.g., observe, count, or survey) categorical data to answer a question posed by the teacher or students
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2006 Mathematics			
Grade Level Expectations			
Delaware Mathematics			
Grade 3			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	DE	MA.3. 4.1.1	Collect categorical and numerical data to answer a question posed by the teacher or students
Finding the Center of Gravity Using Plumb Lines	DE	MA.3. 3.3.1	Explain the need for standard measurement
Changing the Center of Gravity Using Moment Arms	DE	MA.3. 4.1.1	Collect categorical and numerical data to answer a question posed by the teacher or students
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Grade 4			
Activity/Lesson	State	Standards	

Finding the Center of Gravity Using Rulers	DE	MA.4. 4.1.1	Pose questions that can be answered with data; systematically collect and organize both categorical and numerical data
Finding the Center of Gravity Using Rulers	DE	MA.4. 4.1.2	Collect categorical data where the data is described using numbers (e.g., how many have five letters in their first name?)
Changing the Center of Gravity Using Moment Arms	DE	MA.4. 4.1.1	Pose questions that can be answered with data; systematically collect and organize both categorical and numerical data
Changing the Center of Gravity Using Moment Arms	DE	MA.4. 4.1.2	Collect categorical data where the data is described using numbers (e.g., how many have five letters in their first name?)
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Grade 5			
Activity/Lesson	State	Standards	
Jet Propulsion	DE	MA.5. 4.1.1	Pose questions that can be answered with data; systematically collect and organize categorical and numerical/ measurement data
Vectoring	DE	MA.5. 3.3.4	Draw benchmark turn angles (30, 45, 60, 90, 180 degrees)
Vectoring	DE	MA.5. 4.1.1	Pose questions that can be answered with data; systematically collect and organize categorical and numerical/ measurement data
Center of Gravity, Pitch, Yaw	DE	MA.5. 1.2.11	Find benchmark percents of numbers using physical models
Center of Gravity, Pitch, Yaw	DE	MA.5. 1.2.14	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper and pencil) depending on the context and nature of the computation
Fuel Efficiency	DE	MA.5. 1.2.14	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper and pencil) depending on the context and nature of the computation
Fuel Efficiency	DE	MA.5. 2.2.1	Model problem situations with objects and use representations such as graphs, tables or equations to draw conclusion
Fuel Efficiency	DE	MA.5. 4.2.1	Construct and use data displays (e.g., tables, scaled pictographs, line plots, bar graphs) in order to answer a question
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Grade 6			
Activity/Lesson	State	Standards	
Jet Propulsion	DE	MA.6. 4.1.1	Collect and organize numerical (whole number or decimal) data in order to answer a question
Vectoring	DE	MA.6. 3.1.1	Estimate, measure, and classify angles
Vectoring	DE	MA.6. 4.1.1	Collect and organize numerical (whole number or decimal) data in order to answer a question
Center of Gravity, Pitch, Yaw	DE	MA.6. 1.1.6	Demonstrate equivalence of decimals, fractions, and percents using multiple models
Center of Gravity, Pitch, Yaw	DE	MA.6. 1.2.10	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper, and pencil) depending on the context and nature of the computation
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2006 Mathematics			
Grade Level Expectations			
Delaware Mathematics			
Grade 7			
Activity/Lesson	State	Standards	
Jet Propulsion	DE	MA.7.4.1.1	Pose questions that can be answered by collecting and organizing data from experiments, surveys, and relevant print and electronic resources
Vectoring	DE	MA.7.4.1.1	Pose questions that can be answered by collecting and organizing data from experiments, surveys, and relevant print and electronic resources
Center of Gravity, Pitch, Yaw	DE	MA.7.1.2.5	Use ratios, proportions and percents to solve contextualized problems
Center of Gravity, Pitch, Yaw	DE	MA.7.1.2.9	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper and pencil) depending on the context and nature of the computation
Fuel Efficiency	DE	MA.7.1.2.9	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper and pencil) depending on the context and nature of the computation
Fuel Efficiency	DE	MA.7.2.3.2	Evaluate an algebraic expression for a given value of the variable
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Grade 8			

Activity/Lesson	State	Standards	
Jet Propulsion	DE	MA.8. 4.1.1	Pose questions that can be answered by collecting and organizing data from experiments, surveys, and relevant print and electronic resources
Jet Propulsion	DE	MA.8. 4.1.2	Use random sampling methods to collect the necessary information to answer questions
Vectoring	DE	MA.8. 4.1.1	Pose questions that can be answered by collecting and organizing data from experiments, surveys, and relevant print and electronic resources
Vectoring	DE	MA.8. 4.1.2	Use random sampling methods to collect the necessary information to answer questions
Center of Gravity, Pitch, Yaw	DE	MA.8. 1.2.7	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper and pencil) depending on the context and nature of the computation
Fuel Efficiency	DE	MA.8. 1.2.7	Select and use appropriate methods and tools for computing (e.g., mental computation, estimation, calculators, paper and pencil) depending on the context and nature of the computation