

| Exploring the Extreme | | | |
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| 2007 Mathematics | | | |
| Curriculum Standards | | | |
| South Carolina Mathematics | | | |
| Grade K | | | |
| Activity/Lesson | State | Standards | |
| Finding the Center of Gravity Using Rulers | SC | MA.K.K-1.6 | Use a variety of forms of mathematical communication. |
| Finding the Center of Gravity Using Rulers | SC | MA.K.K-1.8 | Use multiple informal representations to convey mathematical ideas. |
| Finding the Center of Gravity Using Rulers | SC | MA.K.K-5.4 | Identify rulers, yardsticks, and tape measures as devices used to measure length; scales and balances as devices used to measure weight; calendars and analog and digital clocks as devices used to measure time; and digital and standard thermometers as devices used to measure temperature. |
| Exploring the Extreme | | | |
| 2007 Mathematics | | | |
| Curriculum Standards | | | |
| South Carolina Mathematics | | | |
| Grade 1 | | | |
| Activity/Lesson | State | Standards | |
| Finding the Center of Gravity Using Rulers | SC | MA.1.1-1.6 | Use a variety of forms of mathematical communication. |
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| 2007 Mathematics | | | |
| Curriculum Standards | | | |
| South Carolina Mathematics | | | |
| Grade 2 | | | |
| Activity/Lesson | State | Standards | |
| Finding the Center of Gravity Using Rulers | SC | MA.2.2-1.6 | Use a variety of forms of mathematical communication. |
| Finding the Center of Gravity Using Rulers | SC | MA.2.2-5.3 | Use appropriate tools to measure objects to the nearest whole unit: measuring length in centimeters, feet, and yards; measuring liquid volume in cups, quarts, and gallons; measuring weight in ounces and pounds; and measuring temperature on Celsius and Fahrenheit thermometers. |
| Exploring the Extreme | | | |
| 2007 Mathematics | | | |
| Curriculum Standards | | | |
| South Carolina Mathematics | | | |

| Grade 3 | | | |
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| Activity/Lesson | State | Standards | |
| Finding the Center of Gravity Using Rulers | SC | MA.3.3-1.5 | Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations. |
| Finding the Center of Gravity Using Rulers | SC | MA.3.3-5.2 | Use appropriate tools to measure objects to the nearest unit: measuring length in meters and half inches; measuring liquid volume in fluid ounces, pints, and liters; and measuring mass in grams. |
| Finding the Center of Gravity Using Plumb Lines | SC | MA.3.3-1.5 | Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations. |
| Finding the Center of Gravity Using Plumb Lines | SC | MA.3.3-3.2 | Apply procedures to find missing numbers in numeric patterns that involve whole-number operations. |
| Finding the Center of Gravity Using Plumb Lines | SC | MA.3.3-5.2 | Use appropriate tools to measure objects to the nearest unit: measuring length in meters and half inches; measuring liquid volume in fluid ounces, pints, and liters; and measuring mass in grams. |
| Changing the Center of Gravity Using Moment Arms | SC | MA.3.3-1.5 | Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations. |
| Changing the Center of Gravity Using Moment Arms | SC | MA.3.3-5.2 | Use appropriate tools to measure objects to the nearest unit: measuring length in meters and half inches; measuring liquid volume in fluid ounces, pints, and liters; and measuring mass in grams. |
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| 2007 Mathematics | | | |
| Curriculum Standards | | | |
| South Carolina Mathematics | | | |
| Grade 4 | | | |
| Activity/Lesson | State | Standards | |
| Finding the Center of Gravity Using Rulers | SC | MA.4.4-1.5 | Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations. |
| Finding the Center of Gravity Using Rulers | SC | MA.4.4-5.1 | Use appropriate tools to measure objects to the nearest unit: measuring length in quarter inches, centimeters, and millimeters; measuring liquid volume in cups, quarts, and liters; and measuring weight and mass in pounds, milligrams, and kilograms. |

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| Finding the Center of Gravity Using Plumb Lines | SC | MA.4.4-1.5 | Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations. |
| Finding the Center of Gravity Using Plumb Lines | SC | MA.4.4-3.1 | Analyze numeric, nonnumeric, and repeating patterns involving all operations and decimal patterns through hundredths. |
| Finding the Center of Gravity Using Plumb Lines | SC | MA.4.4-3.2 | Generalize a rule for numeric, nonnumeric, and repeating patterns involving all operations. |
| Finding the Center of Gravity Using Plumb Lines | SC | MA.4.4-5.1 | Use appropriate tools to measure objects to the nearest unit: measuring length in quarter inches, centimeters, and millimeters; measuring liquid volume in cups, quarts, and liters; and measuring weight and mass in pounds, milligrams, and kilograms. |
| Changing the Center of Gravity Using Moment Arms | SC | MA.4.4-1.5 | Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations. |
| Changing the Center of Gravity Using Moment Arms | SC | MA.4.4-5.1 | Use appropriate tools to measure objects to the nearest unit: measuring length in quarter inches, centimeters, and millimeters; measuring liquid volume in cups, quarts, and liters; and measuring weight and mass in pounds, milligrams, and kilograms. |
| Exploring the Extreme | | | |
| 2007 Mathematics | | | |
| Curriculum Standards | | | |
| South Carolina Mathematics | | | |
| Grade 5 | | | |
| Activity/Lesson | State | Standards | |
| Jet Propulsion | SC | MA.5.5-1.5 | Use correct, clear, and complete oral and written mathematical language to pose questions, communicate ideas, and extend problem situations. |
| Jet Propulsion | SC | MA.5.5-6.2 | Analyze how data-collection methods affect the nature of the data set. |
| Vectoring | SC | MA.5.5-1.5 | Use correct, clear, and complete oral and written mathematical language to pose questions, communicate ideas, and extend problem situations. |
| Center of Gravity, Pitch, Yaw | SC | MA.5.5-5.1 | Use appropriate tools and units to measure objects to the precision of one-eighth inch. |
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| 2007 Mathematics | | | |
| Curriculum Standards | | | |
| South Carolina Mathematics | | | |

| Grade 6 | | | |
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| Activity/Lesson | State | Standards | |
| Jet Propulsion | SC | MA.6.6-1.6 | Use correct and clearly written or spoken words, variables, and notations to communicate about significant mathematical tasks. |
| Jet Propulsion | SC | MA.6.6-3.5 | Use inverse operations to solve one-step equations that have whole-number solutions and variables with whole-number coefficients. |
| Vectoring | SC | MA.6.6-1.6 | Use correct and clearly written or spoken words, variables, and notations to communicate about significant mathematical tasks. |
| Center of Gravity, Pitch, Yaw | SC | MA.6.6-2.1 | Understand whole-number percentages through 100. |
| Center of Gravity, Pitch, Yaw | SC | MA.6.6-2.3 | Compare rational numbers and whole-number percentages through 100 by using the symbols "less than or equal to", "greater than or equal to", $<$, $>$, and $=$. |
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| 2007 Mathematics | | | |
| Curriculum Standards | | | |
| South Carolina Mathematics | | | |
| Grade 7 | | | |
| Activity/Lesson | State | Standards | |
| Jet Propulsion | SC | MA.7.7-1.6 | Use correct and clearly written or spoken words, variables, and notation to communicate about significant mathematical tasks. |
| Vectoring | SC | MA.7.7-1.6 | Use correct and clearly written or spoken words, variables, and notation to communicate about significant mathematical tasks. |
| Center of Gravity, Pitch, Yaw | SC | MA.7.7-2.1 | Understand fractional percentages and percentages greater than one hundred. |
| Center of Gravity, Pitch, Yaw | SC | MA.7.7-2.3 | Compare rational numbers, percentages, and square roots of perfect squares by using the symbols "less than or equal to", "greater than or equal to", $<$, $>$, and $=$. |
| Exploring the Extreme | | | |
| 2007 Mathematics | | | |
| Curriculum Standards | | | |
| South Carolina Mathematics | | | |
| Grade 8 | | | |
| Activity/Lesson | State | Standards | |
| Jet Propulsion | SC | MA.8.8-1.6 | Use correct and clearly written or spoken words, variables, and notations to communicate about significant mathematical tasks. |

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| Vectoring | SC | MA.8.8-1.6 | Use correct and clearly written or spoken words, variables, and notations to communicate about significant mathematical tasks. |
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