

| <b>Smart Skies</b>           |              |                  |  |
|------------------------------|--------------|------------------|--|
| <b>2009 Mathematics</b>      |              |                  |  |
| <b>Standards of Learning</b> |              |                  |  |
| <b>Virginia Mathematics</b>  |              |                  |  |
| <b>Grade 5</b>               |              |                  |  |
| <b>Activity/Lesson</b>       | <b>State</b> | <b>Standards</b> |  |
| Fly by Math                  | VA           | MA.5.5.10        | The student will determine an amount of elapsed time in hours and minutes within a 24-hour period.   |
| Fly by Math                  | VA           | MA.5.5.15        | The student, given a problem situation, will collect, organize, and interpret data in a variety of forms, using stem-and-leaf plots and line graphs. |
| Line Up with Math            | VA           | MA.5.5.8.a       | Find perimeter, area, and volume in standard units of measure;   |
| Line Up with Math            | VA           | MA.5.5.8.d       | estimate and then measure to solve problems, using U.S. Customary and metric units; and  |
| Line Up with Math            | VA           | MA.5.5.10        | The student will determine an amount of elapsed time in hours and minutes within a 24-hour period.   |
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| <b>2009 Mathematics</b>      |              |                  |  |
| <b>Standards of Learning</b> |              |                  |  |
| <b>Virginia Mathematics</b>  |              |                  |  |
| <b>Grade 6</b>               |              |                  |  |
| <b>Activity/Lesson</b>       | <b>State</b> | <b>Standards</b> |  |
| Fly by Math                  | VA           | MA.6.6.14.a      | Construct circle graphs;   |
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| <b>Virginia Mathematics</b>  |              |                  |  |
| <b>Grade 7</b>               |              |                  |  |
| <b>Activity/Lesson</b>       | <b>State</b> | <b>Standards</b> |  |
| Fly by Math                  | VA           | MA.7.7.11.a      | Construct and analyze histograms   |
| Line Up with Math            | VA           | MA.7.7.5.c       | Describe how changing one measured attribute of a rectangular prism affects its volume and surface area.   |
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| <b>Virginia Mathematics</b>  |              |                  |  |
| <b>Grade 8</b>               |              |                  |  |
| <b>Activity/Lesson</b>       | <b>State</b> | <b>Standards</b> |  |
| Fly by Math                  | VA           | MA.8.8.13.b      | Construct and analyze scatterplots.  |
| Line Up with Math            | VA           | MA.8.8.7.b       | Describe how changing one measured attribute of a figure affects the volume and surface area.  |
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| <b>Virginia Mathematics</b>    |              |                  |   |
|--------------------------------|--------------|------------------|---|
| <b>Grades 9-12 (Algebra I)</b> |              |                  |   |
| <b>Activity/Lesson</b>         | <b>State</b> | <b>Standards</b> |   |
| Fly by Math                    | VA           | MA.9-12.A.6.a    | Determining the slope of a line when given an equation of the line, the graph of the line, or two points on the line. Slope will be described as rate of change and will be positive, negative, zero, or undefined; and                             |
| Fly by Math                    | VA           | MA.9-12.A.6.b    | Writing the equation of a line when given the graph of the line, two points on the line, or the slope and a point on the line.  |
| Fly by Math                    | VA           | MA.9-12.A.9      | The student, given a set of data, will interpret variation in real-world contexts and calculate and interpret mean absolute deviation, standard deviation, and z-scores.  |
| Fly by Math                    | VA           | MA.9-12.A.11     | The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve real-world problems, using mathematical models. Mathematical models will include linear and quadratic functions. |
| Line Up with Math              | VA           | MA.9-12.A.6.a    | Determining the slope of a line when given an equation of the line, the graph of the line, or two points on the line. Slope will be described as rate of change and will be positive, negative, zero, or undefined; and                             |
| Line Up with Math              | VA           | MA.9-12.A.6.b    | Writing the equation of a line when given the graph of the line, two points on the line, or the slope and a point on the line.  |
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| <b>2009 Mathematics</b>        |              |                  |   |
| <b>Standards of Learning</b>   |              |                  |   |
| <b>Virginia Mathematics</b>    |              |                  |   |
| <b>Grades 9-12 (Geometry)</b>  |              |                  |   |
| <b>Activity/Lesson</b>         | <b>State</b> | <b>Standards</b> |   |
| Fly by Math                    | VA           | MA.9-12.G.3.b    | Applying slope to verify and determine whether lines are parallel or perpendicular;   |
| Fly by Math                    | VA           | MA.9-12.G.12     | The student, given the coordinates of the center of a circle and a point on the circle, will write the equation of the circle.  |
| Line Up with Math              | VA           | MA.9-12.G.3.b    | Applying slope to verify and determine whether lines are parallel or perpendicular;   |
| Line Up with Math              | VA           | MA.9-12.G.12     | The student, given the coordinates of the center of a circle and a point on the circle, will write the equation of the circle.  |