

***FlyBy Math™* Alignment**  
**Iowa K-12 Content Standards and Benchmarks**

**A. Students can understand and apply a variety of math concepts.**

<b>Benchmarks</b>	<b><i>FlyBy Math™</i> Activities</b>
2. Students can understand and apply concepts and procedures of algebra.	<p>--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.</p> <p>--Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.</p> <p>--Interpret the slope of a line in the context of a distance-rate-time problem.</p>
3. Students can understand and apply concepts of geometry.	--Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system.
4. Students can understand and apply concepts of measurement.	<p>--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.</p> <p>--Use the distance-rate-time formula to predict and analyze aircraft conflicts.</p>
5. Students can understand and apply concepts in probability and statistics.	<p>--Conduct simulation and measurement for several aircraft conflict problems.</p> <p>--Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs.</p>

**B. Students can understand and apply methods of estimation.**

<b>Benchmarks</b>	<b><i>FlyBy Math™</i> Activities</b>
1. Students can understand and apply concepts and procedures of standard rounding, order of magnitude, and number sense.	--Predict outcomes and explain results of mathematical models and experiments.

### C. Students can solve a variety of math problems.

<b>Benchmarks</b>	<b><i>FlyBy Math™</i> Activities</b>
1. Students can solve math problems.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
2. Students can understand and apply problem-solving approaches and procedures.	--Apply mathematics to predict and analyze aircraft conflicts and validate through experimentation.  --Use tables, graphs, and equations to solve aircraft conflict problems.

### D. Students can interpret data presented in a variety of ways.

<b>Benchmarks</b>	<b><i>FlyBy Math™</i> Activities</b>
1. Students can use tables and graphs to locate and read information.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.
2. Students can interpret data from a variety of sources.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.