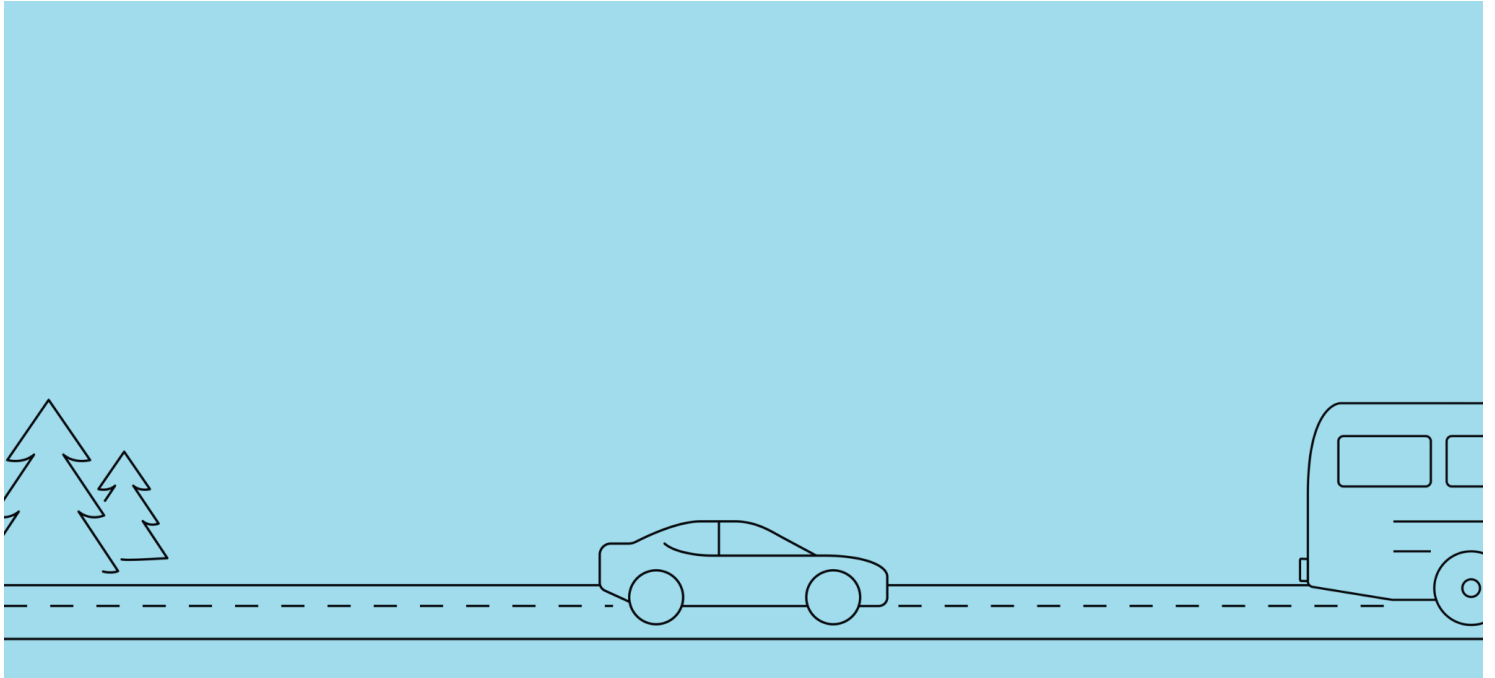
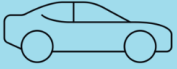




Do the math. Save a life.

A Guide for Teachers





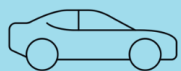
Vision

These materials were developed to introduce students to important real-world data collected by the Idaho Transportation Department. The six lessons in the table below are designed to encourage students to explore the data and ask critical questions that help them learn to think with data while becoming better informed and more aware drivers.

The lessons are designed sequentially but do not need to be taught in order. If teaching sequentially, we suggest introducing the project in lesson 6 about halfway through (by lesson 4). The materials include suggestions for teachers to customize for the individual needs and contexts of the students in their classrooms. The target classroom is Algebra 1/Math 1, but small modifications could make these materials appropriate for most middle or high school classrooms.

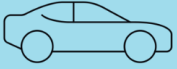
The collaborators on this project consider these materials to be in a constant state of development and would love feedback to enhance them. Please provide [feedback using this form](#).

Tutorials are linked throughout many lesson plans, but if you haven't used the Idaho Transportation Department's Crash Data Dashboard before, you probably want to watch [this tutorial](#) first.



Scope/Sequence

Lesson Title	Duration	Math Topics	Materials
1: ITD Crash Data Scavenger Hunt	50 min	- Navigating the Data Dashboard - What is a Good Statistical Question? - Data Types - Measures of Center and Spread	Lesson Plan PowerPoint Worksheet
2: Can a Data Story Be Wrong?	50 min (with additional extension opportunities if more time is available)	- Critiquing Data - Limits of Data, including Bias and Sample Size	Lesson Plan PowerPoint Exploration Note Catcher Share Out Note Catcher Exit Ticket
3: What are our Crash Factors?	50 min	- Summarizing Categorical data in relative frequency tables - Interpreting relative frequency tables to identify data patterns	Lesson Plan PowerPoint Note Catcher
Introduce the capstone project (Lesson 6) – begin considering recommendations			
4: What Can We Learn from Mortality Rates?	50 min	- Lines of Best Fit - Interpreting functions that have been used to fit data	Lesson Plan PowerPoint Exit Ticket
5: Should Idaho Change the Driving Age to 21?	90 min	Outliers: their effect on center and spread and when to exclude them	Lesson Plan PowerPoint Worksheet Exit Ticket
6: Capstone: How Can We Make the Roadways Safer for Our Concerned Citizens?	50-150 min (there are four variations of the lesson to choose from)	- Using knowledge of data (center, spread, and limitations) to make an argument - Justifying real-world solutions using data	Lesson Plan (due to variation options in the plan, additional materials are linked within)

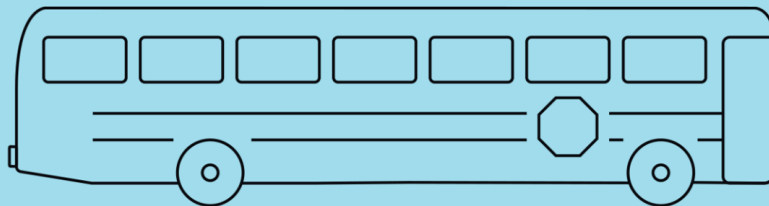


Credits

Materials were created by Daniel Thomander, Erin Corwine, Danielle Desjarlais, Josie Derrick, and Josh Watson, in partnership with Cathy Beals at the Idaho State Department of Education.

[Please contact us for feedback using this form.](#)

The “Do the Math, Save a Life” campaign is headed by Josephine Middleton at the Idaho Transportation Department.



Do the math. Save a life.