

How does this module fit into standards I'm required to teach?

- This module asks students to examine patterns of association in bivariate data. It serves as a starting point for instruction on the 8th grade data, statistics, and probability standards. It does not cover 8.DSP.A.4.
- Students begin with examining the relationship between income and life expectancy using the GapMinder website. As a class, you will discuss what the bubbles represent, what variables are on the graph, and if students notice any patterns related to life expectancy and income. Alternatively, there is a "slow reveal graph" version of the discussion scaffolding the visualization as factors are discussed one-by-one. There is a brief follow-up video available as well.
- After your instruction on types of association (positive, negative, etc.) consider going back to the Gapminder tool and asking students to describe what types of association they see. There are examples for discussion in this presentation.
- After students have learned to create a scatter plot by hand, have them use Google Sheets to recreate the scatterplot of the income vs. life expectancy data.
- Then ask students to generate a line of best fit for their scatterplots by and with Google sheets. Discuss the parameters of the regression equation in the context of the situation.
- As an extension, consider having students create a scatterplot for their own variable of interest.

What materials & technology are required?

- A projector or large display for discussing the Gapminder Visualizations.
- An internet capable device for each student or pair of students to create a scatter plot and trendline using Google sheets.

What may be the most challenging for teachers?

- Students may need help using Google sheets to create their scatterplot and regression equation. Consider walking through one together as a class first.