

# Algebra II with Statistics Course Guide

## Introduce

QuantHub supports concepts assessed on ACT Math and Science as well as concepts found in the Data Analytics, Statistics, and Probability focus area. QuantHub supports interdisciplinary learning of data science concepts. QuantHub was originally designed as a workforce development tool utilized by large corporations undergoing digital transformation, so all skills develop students' understanding of these academic concepts through real-world scenarios and applications. QuantHub skills in Data Literacy, Data Analysis, and Statistics support students as they prepare for their next steps in becoming contributing members of an evolving workforce.

We encourage teachers to introduce students to QuantHub with a meaningful discussion and lesson correlated to the core content in their course. This lesson plan is designed to introduce a pertinent QuantHub skill for Algebra II with Statistics: [Understanding Data Shapes and Decision Making](#)

## Educate

QuantHub's goal is to prepare our students for the future of work. Students can prepare for this future by gaining a credential that can be used for their resume. Here are the following [certificates](#) we suggest for clubs

### Introduction to Data Literacy



### Statistical Problem Solving



### Data Visual Literacy



### Exploratory Data Analysis



### Scavenger Hunts: A whole group discussion tool

QuantHub's adaptive instruction revolves around student's comprehension of rich non-fiction texts, videos, and infographics. Utilize these resources to inspire thoughtful discussions for your club. Students can study the resource within the "Assignment". They will be asked questions to ensure they retain the material. Preview the questions in the preview link. [Learn more about the QuantHub Scavenger Hunt.](#)

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"Understanding the Role of Distribution in Statistical Analysis"

[Resource](#)   [Assignment](#)   [Preview](#)

"A Guide to Navigating Charts That Show Change Over Time"

[Resource](#)   [Assignment](#)   [Preview](#)

"Designing Data Collection Tools: Unlocking the Secrets of Statistics"

[Resource](#)   [Assignment](#)   [Preview](#)

## Inspire

After students have completed the statistics certificate, encourage students to utilize their new skills as they explore open data sets related to your particular subject.

Engage students through leaderboard competitions or skill mastery acknowledgement. Students are motivated by friendly competitions between students or between classes/groups. QuantHub awards "neurons" for correct or partially correct answers. Rewards can be as simple as gaining a spotlight on the newsletter or as profound as a leadership position. We recommend that students externalize their skill acquisition by ringing a bell, adding their name to a board, or earning a school-based or activity-based currency.

## Connect

Track the importance of data mapping and analysis in the quest to improve public health. The painstaking work of past data detectives made us aware of epidemic "curves" as well as the extent of health inequalities among different U.S. communities. Check out this video from Alabama Public Television on : [P-Value as a Benchmark in Experimental Research | Prediction by the Numbers](#)

Your students are set up for success...now what? We encourage students to apply for our internship and/or STEM scholarship program. [Learn more and apply here.](#)