High School Science Course Guide

Introduce

QuantHub supports concepts assessed on ACT Science as well as concepts found in all High School Science courses. QuantHub supports interdisciplinary learning of data science concepts, so it is not aligned with specific content-based standards such those found in Biology. QuantHub skills correlate to ACT standards in the Evaluation of Models, Inferences, and Experimental Results, Interpretation of Data, and Scientific Investigation clusters. 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 the Science course: The Statistical Investigative Process

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

Data Visual Literacy

Exploratory Data Analysis

Statistical Problem Solving

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.

"Cracking the Code of Data: A Student's Guide to Hypothesis Testing"

Resource   Assignment   Preview

"Designing Data Collection Tools"

Resource   Assignment   Preview

"Interpreting Data Patterns in Charts"

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

Check out these amazing resources from Alabama Public Television: High School Science Resources

Alabama Public Television is proud to partner with schools and businesses to help prepare students with the skill sets and training needed to be part of the new workforce, demonstrating the value of high-demand skilled jobs in Alabama and the many pathways to gainful employment.

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.