Day 2

Topic	QuantHub and Data Skills
Age Level	Middle and High School
Essential Questions	• What is QuantHub? • Why should I learn about data?
Sequence/Duration	1. Discussion – 3-5 minutes 2. Introduction to QuantHub and Data Science – 3 minutes 3. Learning with QuantHub video – 1 minute 4. Login to QuantHub – 2-5 minutes 5. Survey – 1 minute 6. Begin learning with QuantHub – 10 minutes Total: Up to 25 minutes
Learning Objectives	• TSW describe the role data plays in their lives • TSW define Data Science and Data Literacy • TSW use QuantHub to learn at their own pace
Key Terms	Data Science – An interdisciplinary concept that unifies statistics, data analysis, informatics, and their related methods in order to understand and analyze something that happens in real life. *Example: Using data science to create the perfect team strategy to win the next football game* *Example: Using data science to develop a game that allows plays to explore AI-generated worlds and adventures that are actually endless.* Data Analysis: Data analysis is the practice of working with data to find useful information, which can then be used to make informed decisions. Data Literacy: Data literacy is the set of skills that people need to ask questions, collect, analyse, interpret and communicate about data.
Other resources for extension	Data Science is the Future 2-minute video on Data Literacy
Activities	**Discussion Questions:** 1. There are 2.5 quintillion bytes of data generated each day. What are some ways you generate data?

	2. Who do you think controls your personal data? 3. What are some jobs that use data science, data analytics, and AI? Guide to Data Science Careers **Introduction to QuantHub Activity Script:** *What is it?* We are going to begin using a tool to learn about data. QuantHub is a way we can practice skills like answering questions based on a resource and interpreting charts. We are going to have some fun with this application because you can earn points called Neurons and lose lives. Along the way, you may be asked to answer a survey question. It is important to answer these questions so that they make the program better for all students to learn these skills necessary for everyone. The object of QuantHub is mastering skills. You will learn at your own pace, so don't get frustrated if you don't learn as quickly as others. If you don't know the answer to a question, DON'T GUESS. Use the resource to find the answer. I will be excited to see what we can master over the next month as a class. To master a skill, you will answer a question. Each question may have one or more answers. Pay attention if it states "select one or more". This means there may be more than one answer. *Why is it important?* Why do we need to learn about this stuff anyway? The short of it is that the world is increasingly becoming more dependent on data to make decisions and solve problems. In fact, people with a basic understanding of data earn on average 20% more than people who don't understand data. In other words, there's money on the line with this skillset! You might be thinking, yeah, but that's only true if I decide to something like programming or data science. Not true. Data literacy, or the ability to understand and communicate with data, no matter who you are and what you do, can earn you more money and improve your life in countless ways. *How will we use QuantHub?* We will use QuantHub to learn about data literacy and fascinating AI applications in the first level, Discovering Data Literacy. Once you

	level up, you'll start learning about how to explore data and turn it into something that you can gain information from. This level is called the Data Detective. QuantHub is meant to be done in just 10 minutes, so we may use it at the beginning or end of class. You can work on it on your phone at home even. **[If a competition is happening in the school, discuss the competition]** This 1-minute video will give us a brief overview of learning on this platform. Show – Learning with QuantHub Overview *Note: Students will have an opportunity to view this video in the first skill, so if a projector is unavailable, skip this step.* Are there any questions before we get started on QuantHub? **Provide Log-in Instructions according to your implementation.** The first thing you will need to do is complete a short survey. Once you have finished with the survey, you can begin mastering your first skill. Remember to look at the resource by clicking "study before answering" if you don't know the answer.

Learning with QuantHub Cheat Sheet

It is recommended to complete "Learning with QuantHub" as a class and master the first skill together. Questions may be asked slightly out of the order presented below.

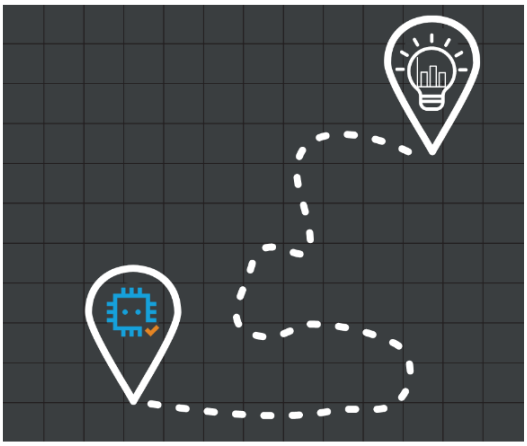
What is Chip most like in QuantHub?

Select one

- A coding tutor
- A statistical tool
- The "Google Maps" of learning
- The "Spotify" of learning

+10

Open resource



What should you try to do each day in QuantHub?

Select one

- Watch one video
- Read one article
- Find one takeaway
- Master a skill

+20

Open resource

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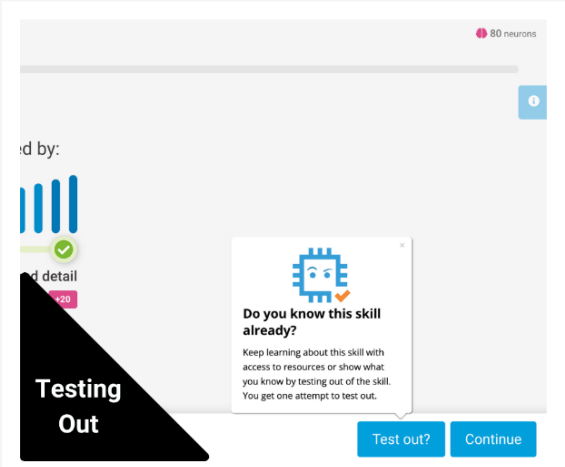
When will you see the "Test Out" button in a study activity?

Select one

- [x] When Chip thinks you already know the skill
- [ ] When you click on the "Info" button
- [ ] You cannot test out of a skill from a study activity

+20

Open resource



How much time should you spend studying in QuantHub?

Select one

- [ ] 30 to 45 minutes a day
- [ ] At least an hour a day
- [x] 10 minutes or less a day

+20

Open resource

Why does QuantHub quiz you before you study?

Select one

- [ ] To get you used to taking tests
- [x] To help answers stick in your brain through active learning
- [ ] To test what you already know

+30

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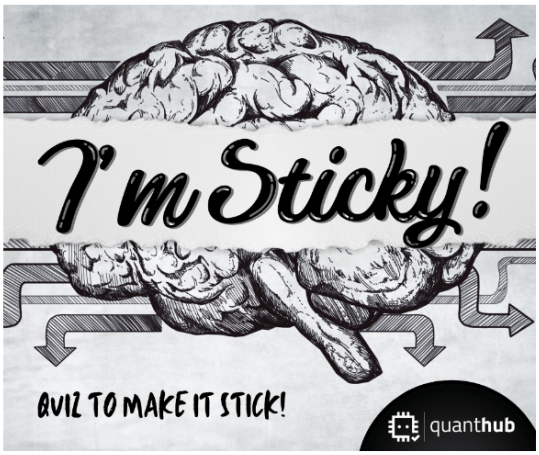

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What helps you remember skills after you master them?

Select one

- A study activity
- A skill analysis
- A scavenger hunt
- ✓ A review

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Open resource

How do you give feedback about a question (e.g., when you see a typo)?

Select one

- Click "Study before answering"
- Open the info panel by clicking on the "i" icon
- ✓ Use the thumb icons to up or down vote

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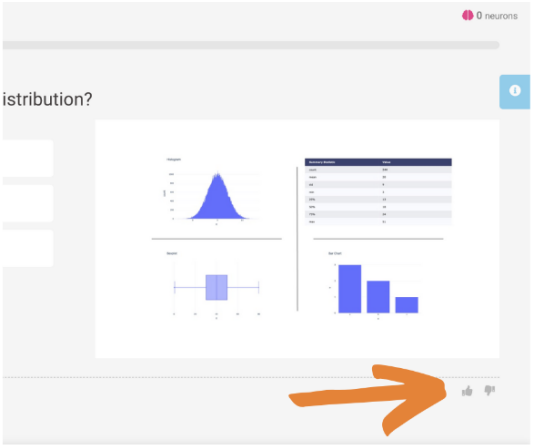
Open resource



What should you do if you don't know the answer to a question?

Select one

- ✓ Click on the "Study before answering" button
- Use Google to look up the answer
- Click the thumbs down icon

+40

Open resource

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Why visit your Activity Log in QuantHub?

Select one

- ○ To better understand what a skill is about
- ○ To see what skill you need to study next
- ✓ To see your questions and answers from a past activity

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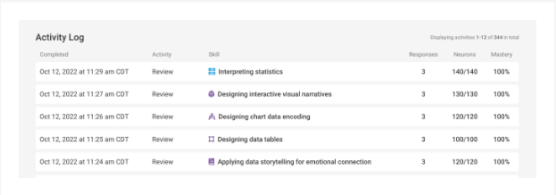
Open resource



How do you earn neurons in QuantHub?

Select one

- ○ Complete a study activity.
- ✓ Get a quiz question correct.
- ○ Log in to QuantHub every day.

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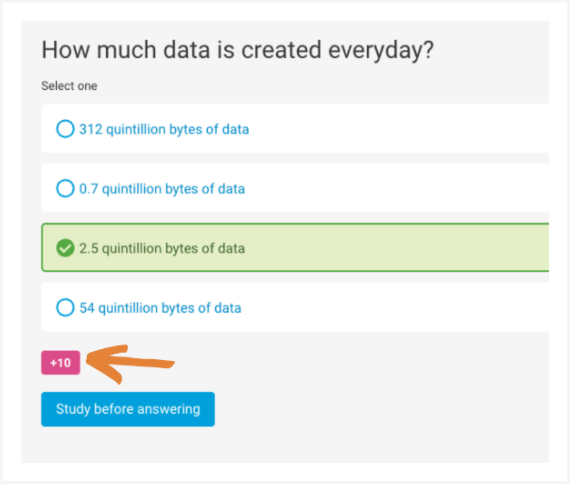
Open resource



What does your "skill strength" in the progress bar mean?

Select one

- ○ It shows how long Chip has recorded you working on the skill.
- ✓ It shows how strong Chip thinks you are in the skill.
- ○ It shows how many questions Chip has seen you answer.

+50

Open resource