We can't wait to introduce you to the incredible technology and people who make Amazon possible. Use this facilitation guide to provide an excellent tour experience for students at home or in the classroom!

1. Prepare for the tour

- Review the key learnings and facilitation guide documents. Click through the tour (link below) on your own.
- Distribute graphic organizers (PDF, Word, Google Doc) to students if desire

2. Select your tour style and length

Host a tour with student devices

A host projects the tour to a group and students join to compete against each other from separate devices.

- Full Tour (~60 minutes)
- Split Tour: Part 1 (~25-30 minutes)
- Split Tour: Part 2 (~25-30 minutes)

Project the tour without student devices

The host projects tour to group without students joining on separate devices.

- Full Tour (~60 minutes)
- Split Tour: Part 1 (~25-30 minutes)
- Split Tour: Part 2 (~25-30 minutes)

Share the tour for independent student play

0 0

Students complete the tour by themselves on their own devices. Teacher cannot see student responses.

- Full Tour (~60 minutes)
- Split Tour: Part 1 (~25-30 minutes)
- Split Tour: Part 2 (~25-30 minutes)

For additional support in setting up Kahoot, visit: https://support.kahoot.com/hc/en-us

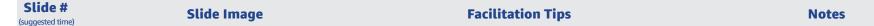
3. Facilitate the tour

- Use the guide below to walk students through the tour. Ask students to share their thoughts or respond to questions to build more interaction.
- To advance slides, click "Got It" in the top right corner.
- Use our **Teacher Toolkit** for optional follow up activities and print completion certificates.

Kahoot! Tips

- If the video clips are playing too softly, check that the volume bar on the YouTube video is at maximum volume.
- There is no go back feature. If you need to go back to a video, the links to the segments on YouTube are provided in the facilitation guide below.
- **Warning**: Hitting space bar auto-advances the slide with no go-back feature.

NOTE: Some questions require an EDU account. You can still play the Kahoot! without one, but use an alternate method of collecting answers (i.e. turn and talks).



1



Say: "You may have heard of the company Amazon before. You may have seen Amazon trucks delivering packages around your neighborhood! Today we're going to take a virtual field trip to the fulfillment centers where Amazon fulfills and sends out customer orders to learn about how computer science makes it all possible."

2



If you'd like your students to access digital notes, have them scan the QR code or access a <u>doc at the tinyurl provided</u>. Students should make a copy of the document. They'll have to switch between the Google Docs and Kahoot tabs to answer questions and take notes.

If using paper note catchers, this would be the time to distribute.

Tour Stop Organizer: PDF Word

3 1 min



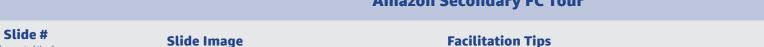
Set tour expectations with your class.

Read the expectations to students.

Say: "Let's get started on our tour!"









Show Video 1. Video is 1:14 in length.

Say: "As we begin the tour, let's think about what you may already know. After someone clicks 'order' on Amazon.com, what do you think is the next thing that happens? When I go to the next slide you'll have 2 minutes to type your answers about what happens next."

Alternatively, can have students write answers on their note catcher or turn and talk.

5 2 min

(suggested time)



Read the question to students. Students either turn and talk, write on notecatcher, or share out whole group as a class.

Have a few students share out their answers.

6 1 min 30 sec



Show Video 2. Video is 1:20 in length.

Say: "We're going to answer our first trivia question. When I hit next, you'll answer the question "What was the shortest recorded Amazon delivery (from the customer clicking buy to the order being in their hand)?". Remember, scores are based on if you get the answer correct AND how fast you answer."



Notes





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Facilitation Tips

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Read the question and on-screen answer choices to students. What was the shortest recorded Amazon delivery from the customer clicking buy to the order being in their hand?

Answer: Under 30 minutes

Say: "Let's get back to the tour to learn more about the ordering and fulfillment process."





Show <u>Video 3</u>. Video is 2:15 in length.

After the video, say: "When I hit next, you'll answer the question, "How does Amazon arrange items in the warehouse and in the pods to stay organized?" You may or may not know the answer, but after the question, we'll learn the answer!"





Read the question and on-screen answer choices to students. How does Amazon arrange items in the warehouse and in the pods to stay organized?

Answer: Randomly, no organization method.

Say: "Let's go learn how items are organized and how the correct items get selected in the Fulfillment Center!"









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Show Video 4. Video is 4:47 in length.

[Optional] Ask students what connections they can make to cloud computing/the cloud from their personal lives.

After the video, say: "We saw at the beginning of the tour how enormous the fulfillment centers are! Each robotics FC is a slightly different size, but they all have a conveyor system. How many miles of conveyor belt do you think are in the Fulfillment Center in New Jersey?"

11



Read the question and on-screen answer choices to students. How many miles of conveyor belt do you think are in the Fulfillment Center in New Jersey?

Answer: 30 miles

Say: "After your item is picked, it has to get packed into a box! Let's learn how robotics, computer science, and people work together to get items packed."

12 1 min 45 sec



Show <u>Video 5</u>. Video is 1:28 in length.

After the video, say: "Amazon packages come in all different size boxes and types of packaging. When I press 'Got it!/Next!' you'll answer the question how do you think a packer chooses the most efficient box for packing?







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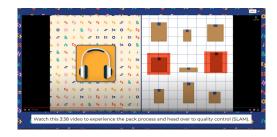
1345 sec



Read the question and on-screen answer choices to students. How does a packer choose the most efficient box for packing?

Answer: Following on screen commands based on previously recorded item measurements.

14 4 min



Show Video 6. Video is 3:38 in length.

If doing the tour in 2 parts, this is where the split occurs. Part 2 is available here to host and here to play.

After the video, say: "After your items are packaged, they need a check to make sure it's correct and a label so it can be delivered to the correct address. How do you think Amazon makes sure your order is correct? You'll answer that question then learn how!"

15 45 sec



Read the question and on-screen answer choices to students. The last station performs one final check to ensure the item is correct. How does it make sure the order is correct?

Answer: Weighs the item as it goes over a conveyor belt.

Say: "Let's watch how special technology makes this happen."

future >> engineer





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Show Video 7. Video is 2:40 in length.

[Optional] Ask students how proofreading essays and assignments is a form of quality control. Ask students for other examples of quality control in the classroom or at home.

After the video, say: "When I hit 'Got it!', you'll answer the question, "How do you think our packages are organized when loading?" You may or may not know the answer, but after the question, we'll learn the answer!"

17 45 sec



Read the question and on-screen answer choices to students. How do you think our packages are organized when loading?

Answer: Packages are pre-sorted using our high tech conveyor system.

Say: "Let's watch how a high-tech conveyor system sorts packages to get them to their correct destination."

18 4 min 45 sec



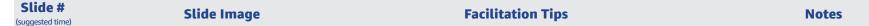
Show <u>Video 8</u>. Video is 4:33 in length.

After the video, say: "We're about to meet some engineers who made all of this technology possible. But first, when I hit 'Got it!', you'll answer, what part of the fulfillment process most surprised you? and why?









19 45 sec



Read the question to students. Students either turn and talk, write on notecatcher, or share out whole group as a class. Have students share out what they chose and why they chose their answer.

20 4 min 45 sec



Show Video 9. Video is 4:24 in length.

After the video, say: When I hit 'Got it!', you'll answer the question, 'Right now, which career most interests you?' This is a poll question, so there's no right or wrong answer, and no points towards the leaderboard. talk to your partner and each of you will share, what is the coolest thing you learned on the tour."

21 45 sec



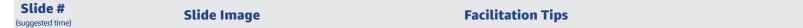
Read the question and on-screen answer choices to students.

Acknowledge student answers. Call on a few students to share out why they chose their answer.









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Show Video 10. Video is 0:36 in length.

After the video, say: "We have a few more questions to finish out the tour."

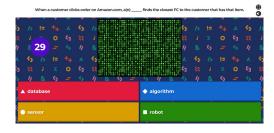
23



Read the question and on-screen answer choices to students.

Say: "We're doing to answer some trivia and poll questions right now. Poll questions do not count towards your score, but the trivia does and will help determine our winner! First up is trivia!"

24 45 sec



Read the question and on-screen answer choices to students. When a customer clicks order on Amazon.com, a(n) __ finds the closest FC to the customer that has that item.

Answer: algorithm

Say: "Time for another trivia question."









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Read the question and on-screen answer choices to students. ___ allows for technology resources, such as storage, computing, and networking to be delivered through the internet.

Answer: cloud computing

Say: "Great job! Time for another review question."

26



Read the question and on-screen answer choices to students. __ on the bottom of the robot scan QR codes on the floor to let the computer know where the robot is at all times.

Answer: sensors

Say: "We've got a few more trivia questions then some polls until we determine the winner. The next 2 questions are about the SLAM station."

27 45 sec



Read the question and on-screen answer choices to students. At the SLAM station, information from a __ is used to compare an item's expected weight to its actual weight.

Answer: database







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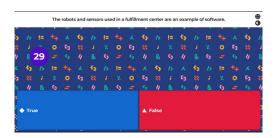


Read the question and on-screen answer choices to students. The SLAM station is a form of __ to ensure that a product or service is free from error.

Answer: quality control

Say: "Next up is a true/false question about the sensors on the robots."

29 20 sec



Read the question and on-screen answer choices to students. The robots and sensors used in a fulfillment center are an example of software.

Answer: false

Say: "One last review question then some survey polls before we close out.

30 45 sec



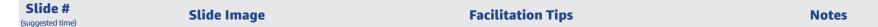
Read the question and on-screen answer choices to students. Amazon uses _ to predict new roads and buildings to make more efficient delivery routes.

Answer: machine learning

Say: "The next questions are some polls to give Amazon some information to help make their tours even better in the future. Then we'll find out the winner! The first questions asks about your tour experience on a scale from 1 to 5, with 5 meaning you really liked it, and 1 meaning you really did not like it."







31



Read the poll question and answer choices to students.

Say: "The next question asks if you now are interested in having a career in technology after watching this tour. 5 means you really want a career in technology and 1 means you really don't want a career in technology."

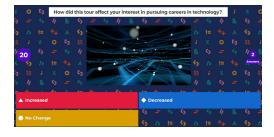
32



Read the poll question and answer choices to students.

Say: "The next question asks if the tour increased, decreased, or cause no change in your interest to have a career in technology."

33 45 sec



Read the poll question and answer choices to students.

Say: "Our last question will ask if you disagree or agree with the statement: I feel like I belong in a career in technology." Then we'll see who won!







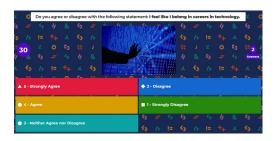


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34 45 sec



Say: "Really great job today! Once I go through these next 2 slides we'll see the winner on our podium!"

35 0 min



Teachers only: Scan the QR code on this slide or visit the link to take a survey and receive a \$5 Amazon Gift Card. Please do not have students complete this survey as they already answered the questions in the previous slides and are not eligible to receive a gift card.

36 0 min



Say: "I hope you enjoyed your virtual field trip and learned a lot about how computer science, robots, and people work together to deliver customer orders at Amazon."

Skip to the end for the podium.







After the Tour



Complete the Survey

Complete the survey to subscribe and a \$5 Amazon gift card (US only)





FC TOUR SURVEY

Lead Class Discussion

Dive into discussion with your class using any of the discussion questions. A variety of questions at different difficulty levels are provided.



PDF WORD GOOGLE DOC

Take Another Tour

Journey through space with Alexa, go behind the scenes of a data center, and more.



TAKE ANOTHER TOUR

Print and distribute student certificates.



DOWNLOAD CERTIFICATE

SLAM Dissection

Use flowcharts or pseudocode to try to break down the SLAM algorithm as a class.



PDF WORD

Quiz

Test students' vocabulary knowledge with a bonus quiz.



QUIZ KAHOOT!

Q&A

Hear from tour leaders as they answer questions not addressed on the tour.



Q&A KAHOOT!

amazon future >> engineer

