SLIDE SCRIPT

Slide Script

Every slide in this lesson has speaker notes. They say what to point to, what to say out loud and what answers to listen for. This script prints the same notes, day by day and slide by slide, so you can read ahead the night before or teach from paper.

Where to find the speaker notes

1. In PowerPoint, the notes sit in the box under each slide. If you can't see it, click Notes in the bar at the bottom of the window.
2. When you present, use Presenter View. You see the notes on your laptop, and students see only the slide.
3. In Google Slides, the notes sit in the box under each slide. If you can't see it, open the View menu and choose Show speaker notes.
4. Say: marks words to read out loud, and Ask: marks a question for the class. Every other line tells you what to do.

The lesson cover

Slide 1. Lesson cover

- **Say:** This lesson is What Cybersecurity Is. It runs 3 days.
- **Ask:** What does cybersecurity protect, and how did it grow out of information security?

Day 1 — Cybersecurity Protects Data, Devices and Networks

Slide 2. Day 1 divider: Cybersecurity Protects Data, Devices and Networks

- **Say:** Today you will learn what it protects. You will also learn how it differs from information assurance.

Slide 3. Warm-up: What on your phone is worth protecting?

- **Ask:** What did you list as things a stranger should not see?
- Take two or three answers. Listen for photos, messages, passwords and accounts.
- **Say:** Everything on your list is worth protecting. Today you will learn the name for that, and whose job it is to protect it.

Slide 4. Cybersecurity stops attacks on the things we value.

- **Say:** Cybersecurity means protecting computers, networks and data. It guards them from attacks, damage and access without permission.
- **Say:** An attack is an action that tries to harm an asset. It can mean stealing data or breaking a website.
- **Say:** An asset is anything worth protecting. These include data, a device, a network or a person's work.
- Fill in the blanks for cybersecurity, attack and asset.

Slide 5. Data, devices and networks are assets.

- **Say:** Data is information stored on a computer or phone. Names, photos and grades are data.
- **Say:** A device is a machine that stores or uses data. A laptop, phone or tablet is one.
- **Say:** A network is a group of devices linked so they can share data. A school's Wi-Fi is one example.
- **Ask:** Which one is the list of contacts on your phone? Listen for data.
- Fill in the blanks for data, device and network.

Slide 6. A school office has data, devices and a network.

- Point to each tag. **Say:** This office has all three kinds of assets.
- **Ask:** What would happen if a stranger copied the list of names and phone numbers?
- **Ask:** What would happen if the router stopped working? Listen for no one being able to get online.
- **Say:** Cybersecurity protects all three.

Slide 7. Cybersecurity and information assurance have different jobs.

- **Say:** Information assurance means protecting information and systems. It keeps information available, correct and private. It also checks who people are and keeps proof of who did what.
- **Say:** In real jobs, the two overlap. Today, use this test.
- **Say:** If a task stops an attack on a computer, a network or data, it is cybersecurity.
- **Say:** If a task uses a rule, a plan or a check so information can be trusted, or if it is about paper files, it is information assurance.
- Fill in the blank for information assurance.

Slide 8. Risk is the chance of harm.

- **Say:** Risk has two parts. One part is how likely the harm is. The other part is how bad it would be.
- **Ask:** Which is a bigger risk, losing a phone with no screen lock or losing one with a screen lock? Listen for no screen lock.
- Fill in the blank for risk.

Slide 9. A hacker tries to get into the Wi-Fi. Whose job is it?

- Read the title out loud. **Say:** The hacker keeps trying to get into the school's Wi-Fi. Give students 15 seconds to decide.
- **Say:** Number 1, cybersecurity. The hacker is attacking a network, and cybersecurity stops attacks.

Slide 10. A clinic checks that its records are correct. Whose job is it?

- Read the title out loud. **Say:** The clinic checks each week that its patient records are complete and correct. Give students 15 seconds to decide.
- **Say:** Number 2, information assurance. No one is attacking. The clinic uses a check so its records can be trusted.

Slide 11. Now you sort the jobs and find the assets.

- **Say:** Use the test from the notes. Stopping an attack is cybersecurity. A rule, a plan, a check or a paper file is information assurance.
- Give students about 8 minutes for Part A. Then take about 2 minutes to go over a few answers together.
- Pair students for Part B. Give them about 8 minutes, then take about 2 minutes to go over it.
- That leaves about 3 free minutes.

Slide 12. Big idea: Cybersecurity protects data, devices and networks.

- **Say:** Here's today's big idea. Data, devices and networks are assets, and cybersecurity protects them from attacks.
- Hand out the exit ticket.

Day 2 — How Information Security Grew into Cybersecurity

Slide 13. Day 2 divider: How Information Security Grew into Cybersecurity

- **Say:** Today you will learn how it grew. You will also learn how the internet sped up the change.

Slide 14. Warm-up: What changed when phones went online?

- **Ask:** What can Malik do on his new phone that he couldn't do before?
- Take two or three answers. Then ask: What new danger came with it?
- **Say:** Today you will see how security changed as more things went online.

Slide 15. Offices moved from paper files to laptops and phones.

- Point to the top office. **Say:** Information security means protecting information in any form. It can be on paper or on a device.
- Point to the bottom office. **Ask:** What could a thief take from this office without walking in? Listen for data sent over the internet or Wi-Fi.
- Fill in the blank for information security.

Slide 16. Security started with locks and passwords.

- **Say:** For a long time, information security meant locks and keys for paper files.
- **Say:** In the early 1960s, a shared computer at MIT used some of the first computer passwords. Many people shared one computer, so each person needed a secret word.
- Fill in the blank for password.

Slide 17. Programs began to travel across networks.

- **Say:** A worm is a harmful program. It usually copies itself from computer to computer by itself.
- **Say:** The internet is a huge network that links computers and networks around the world.
- **Ask:** Why could the Morris worm reach more computers than Creeper? Listen for the internet linking more computers.
- Fill in the blanks for worm and internet.

Slide 18. Security grew in stages.

- Read each stop from left to right.
- Point to the lit stop. **Say:** Before the web, big changes came many years apart. After the web, they came closer together.
- **Ask:** Which stop changed security the most? Give partners 1 minute to pick one. Take two answers.

Slide 19. The web, Wi-Fi and the cloud put everyone online.

- **Say:** The web is the system of linked pages that people open in a web browser. It is also called the World Wide Web.
- **Say:** Wi-Fi is a way for devices to join a network by radio waves. It needs no cables.
- **Say:** The cloud means computers in data centers that store data and run programs. People use them online.
- Fill in the blanks for web, Wi-Fi and cloud.

Slide 20. The internet sped up change.

- **Say:** A thief once had to get into the building to steal a file. Now an attacker can be anywhere.
- **Ask:** Why does that make security harder? Listen for more ways in and more people online.

Slide 21. The country built an agency for cybersecurity.

- **Say:** CISA is a US agency that helps protect the country's networks.
- **Say:** It is part of the Department of Homeland Security.
- Fill in the blank for CISA.

Slide 22. Information security grew into cybersecurity.

- **Say:** The goal stayed the same. We still protect information.
- **Say:** What changed is where the information lives and how far an attack can reach.
- **Ask:** Which line on the right worries you the most?

Slide 23. Why could the Morris worm reach so many computers?

- Read the title out loud. Give students 15 seconds to decide.
- **Say:** Number 1. The internet linked many computers, so the worm could copy itself from one to the next.

Slide 24. Now you put the events in order.

- **Say:** Each event shows when it happened. Use the dates to put the events in order.
- Point to the US-CERT and weekly bulletin events. **Say:** You do not need to know these names. Use the dates.
- Give students about 12 minutes for the whole sheet.
- Then take about 5 minutes to go over the order and one answer from each question.
- That leaves about 3 free minutes.

Slide 25. Big idea: Information security grew into cybersecurity.

- **Say:** Here's today's big idea. The internet put everyone online, so security had to grow.
- Hand out the exit ticket.

Day 3 — Quiz: What Cybersecurity Protects and How It Grew

Slide 26. Day 3 divider: Quiz: What Cybersecurity Protects and How It Grew

- **Say:** Today you will review the big ideas. Then you will show what you know on the quiz.

Slide 27. Cybersecurity protects assets.

- **Say:** Data, devices and networks are all assets, and cybersecurity protects them from attacks.
- Fill in the blanks for cybersecurity, asset and data.

Slide 28. Information security grew into cybersecurity.

- **Say:** Remember the test. Stopping an attack is cybersecurity. A rule, a plan, a check or a paper file is information assurance.
- Fill in the blanks for information security, internet and information assurance.

Slide 29. Practice round: cases 1 and 2.

- **Say:** Work alone. Write each answer in its box on the practice sheet. You have about 1 minute for each case.
- After you collect the sheets, come back to this slide and go over the answers. Case 1 is cybersecurity, because it stops an attack. Case 2 is information assurance, because it is a check on paper files.

Slide 30. Practice round: cases 3 and 4.

- **Say:** For cases 3 and 4, name the kind of asset.
- After the round: Case 3 is data, because the list is information. Case 4 is a network, because it links the computers.

Slide 31. Practice round: cases 5 and 6.

- **Say:** For cases 5 and 6, write the word from the notes.
- After the round: Case 5 is a worm, because it copies itself. Case 6 is the cloud.

Slide 32. Case 7: Which of these came last?

- **Say:** Write your answer in box 7. Don't hold up fingers this time.
- After the round: Number 1, the iPhone. The Morris worm came first, then the web and then the iPhone.

Slide 33. Case 8: Which word means the chance of harm to an asset?

- **Say:** Write your answer in box 8.
- When everyone is done, collect the practice sheets. Then go back to cases 1 and 2, and go over all eight cases.
- After the round: Number 1, risk. Risk is the chance that an asset will be harmed. It also means how bad the harm would be.

Slide 34. Big idea: Cybersecurity protects data, devices and networks.

- **Say:** Here's the whole lesson in three lines.
- Hand out the quiz. After the quiz, hand out the exit ticket.