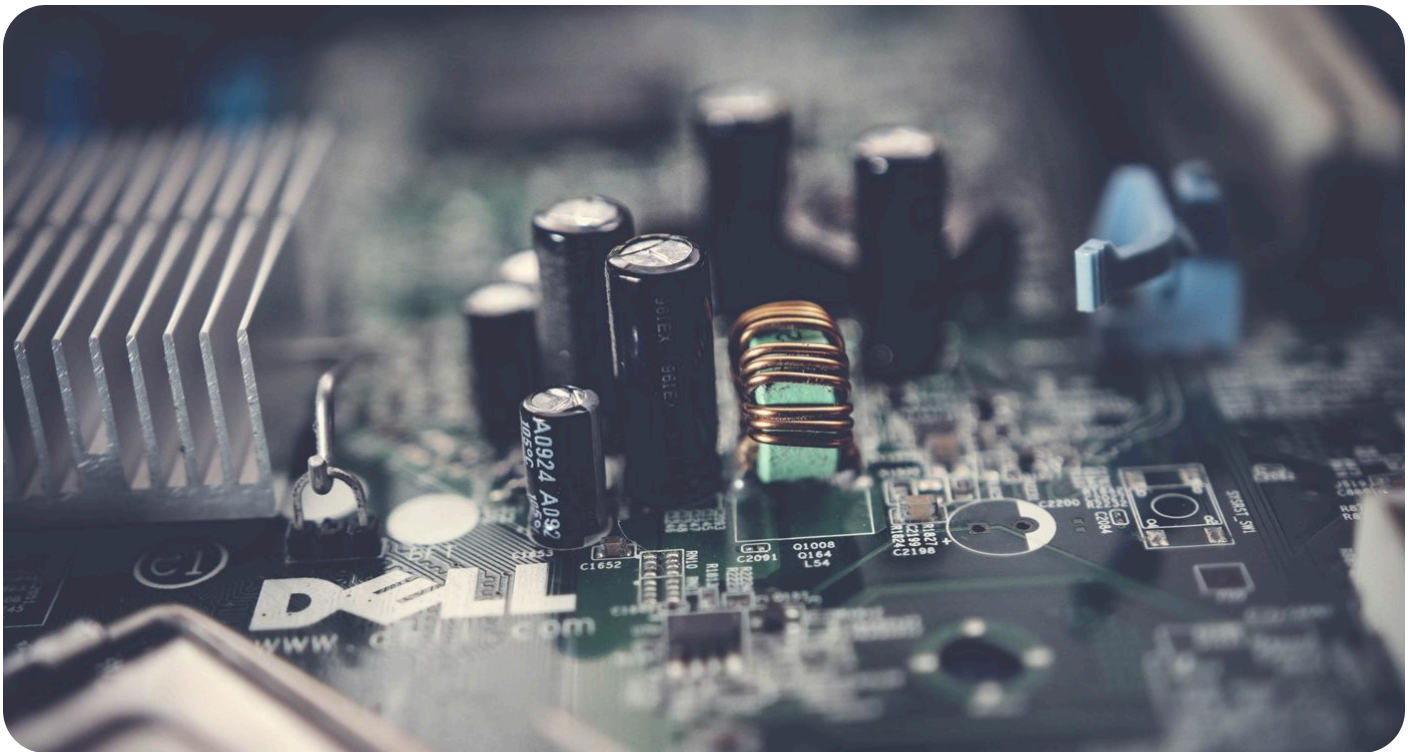


Grades 3–5

IT Fundamentals

Bell Ringers and Exit Tickets



A three-minute warm-up before every section of *IT Fundamentals: Inside the Computer* and a three-minute check after it. One page per section: the bell ringer on top, the exit ticket below, and a cut line between them.

Name: _____

techforeveryone.app



How to Use This Book

Every section of the textbook has one page here. Use the top half as students arrive and the bottom half in the last three minutes.

Bell ringer (before the section)

- Students start the moment they sit down. Three to five minutes, no discussion yet.
- The prompt asks what students already know, think or guess. There is no wrong answer; the point is to wake up the topic.
- Each bell ringer names one **word to watch for**. Students listen for it during the lesson.
- Take one or two answers out loud, then teach. Bell ringers are not collected or graded.

Exit ticket (after the section)

- One multiple-choice check with plausible choices, one short response, and a confidence rating.
- Collect them. Sort into three piles by the multiple-choice answer and the confidence box; the piles tell you what to reteach tomorrow.
- The short response is the real evidence. A one-sentence answer that uses the lesson's idea is a pass.



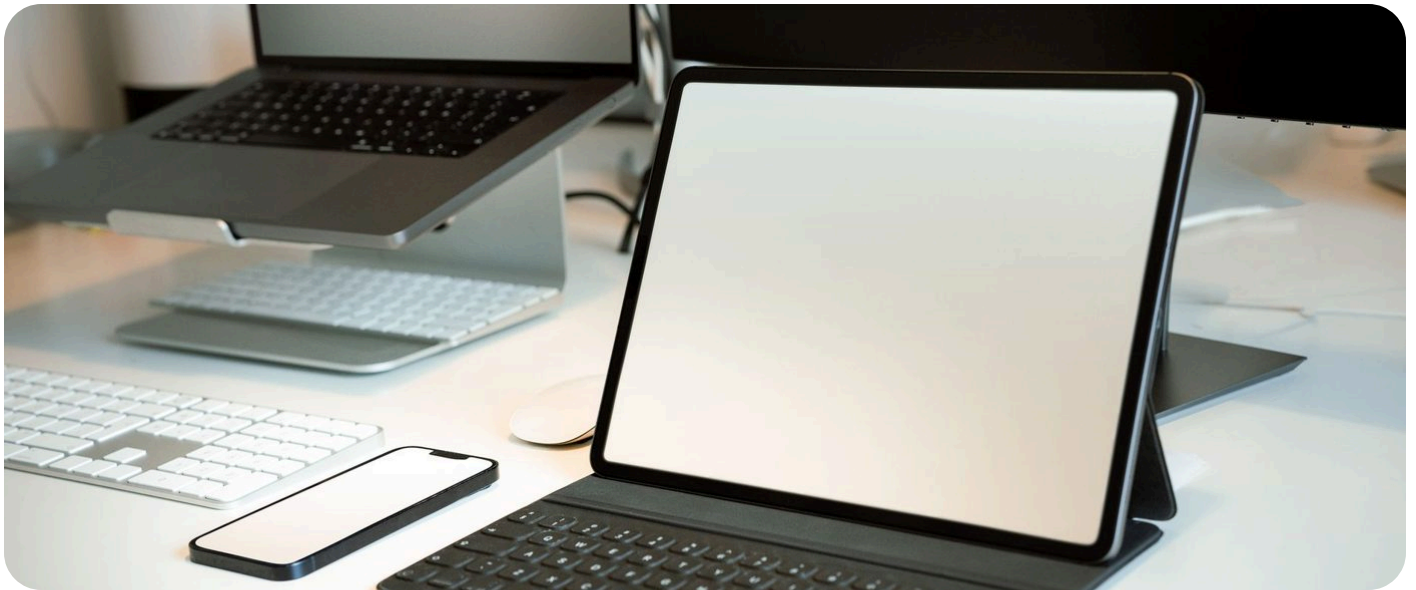
Tip

Cut the pages along the dashed line and keep the exit tickets in a folder per class. Five tickets per chapter make a quick, honest picture of who needs what before the chapter review.

Multiple-choice answers and what to look for in the short responses are in the teacher key at the back.

CHAPTER 1

Meet the Machine



1.1 Kinds of Computers and What They Do Best

watch for: **device**

1.2 Input, Processing, and Output

watch for: **processing**

1.3 Ports, Plugs, and Wireless Doorways

watch for: **port**

1.4 Same Jobs, Different Shapes

watch for: **technician**

**BELL
RINGER****1.1 Kinds of Computers and What They Do
Best**BEFORE THE
LESSON

Name: _____ Date: _____

List every device you think has a computer inside, at home or at school. Don't forget sneaky ones! Star the one you think is the most surprising.

 **Word to watch for:** device. Listen for it, and write what it means when you hear it.

 cut here

**EXIT
TICKET****1.1 Kinds of Computers and What They Do
Best**AFTER THE
LESSON

Name: _____ Date: _____

1. What do smart devices like a fitness watch or doorbell camera do?

- ☐ Collect and share information
- ☐ Work without electricity
- ☐ Replace every other computer

2. Name two kinds of computers and one thing each one is best at.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**1.2 Input, Processing, and Output**

BEFORE THE LESSON

Name: _____ Date: _____

Think of pressing the jump button in a video game. Write or draw what happens, step by step, from your finger to the character on the screen.

 **Word to watch for:** processing. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**1.2 Input, Processing, and Output**

AFTER THE LESSON

Name: _____ Date: _____

1. Which of these is an input?

- ☐ Sound from a speaker
- ☐ A microphone hearing your voice
- ☐ A page from a printer

2. Explain why a touchscreen can be both input and output.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**1.3 Ports, Plugs, and Wireless Doorways**

BEFORE THE LESSON

Name: _____ Date: _____

Look at the edges of a laptop or tablet in the room (no touching needed). Draw the holes and slots you can see. What do you think each one is for?

 **Word to watch for:** port. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**1.3 Ports, Plugs, and Wireless Doorways**

AFTER THE LESSON

Name: _____ Date: _____

1. You find a flash drive on the floor. What should you do?

- ☐ Plug it in to see whose it is
- ☐ Plug it into the class tablet
- ☐ Give it to a teacher without plugging it in

2. Describe one rule that keeps doorways like ports and Bluetooth safe.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**1.4 Same Jobs, Different Shapes**

BEFORE THE LESSON

Name: _____ Date: _____

How do you think people got directions or talked to faraway family before phones? Write two ideas. What would be hard about it?

 **Word to watch for:** technician. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**1.4 Same Jobs, Different Shapes**

AFTER THE LESSON

Name: _____ Date: _____

1. What do a desktop computer and a smartphone have in common?

- ☐ They both have input, processing, and output
- ☐ They are the same size
- ☐ Neither one has ports

2. Write one way computers changed from ENIAC to the smartphone.

How sure
am I?

Got
it

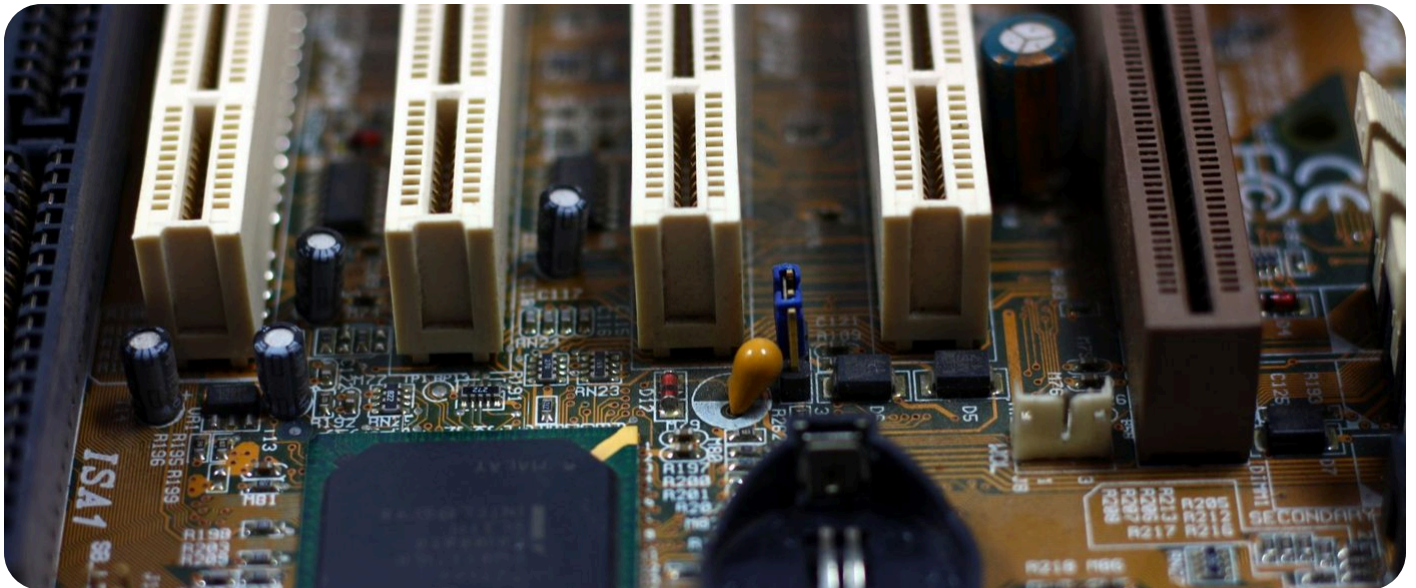
Almost

Still
confused

Word to watch for meant:

CHAPTER 2

A Peek Inside the Case

**2.1** The CPU Is the Brainwatch for: **CPU****2.2** Memory Is the Workbenchwatch for: **memory****2.3** Storage Is the Toy Boxwatch for: **storage****2.4** Hardware and Software Work Togetherwatch for: **operating system**

BELL RINGER**2.1 The CPU Is the Brain**

BEFORE THE LESSON

Name: _____ Date: _____

Write a three-step recipe for something simple, like making toast. Could someone follow it without asking any questions? What would you add?

 **Word to watch for:** CPU. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**2.1 The CPU Is the Brain**

AFTER THE LESSON

Name: _____ Date: _____

1. A GPU is best at:

- ☐ Keeping files when the power is off
- ☐ Doing many small picture jobs at the same time
- ☐ Sharing the internet

2. Explain why the CPU is like a speedy chef following a recipe.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**2.2 Memory Is the Workbench**

BEFORE THE LESSON

Name: _____ Date: _____

Have you ever lost work on a computer before you saved it? What happened? If not, what do you think could cause it?

 **Word to watch for:** memory. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**2.2 Memory Is the Workbench**

AFTER THE LESSON

Name: _____ Date: _____

1. What happens to memory (RAM) when the power turns off?

- ☐ It gets bigger
- ☐ It moves to the cloud
- ☐ It clears

2. Explain what a bit is, using the words on and off.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**2.3 Storage Is the Toy Box**

BEFORE THE LESSON

Name: _____ Date: _____

Where do you keep things you want to find again tomorrow, like toys or homework? Why don't you just leave them on the table?

 **Word to watch for:** storage. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**2.3 Storage Is the Toy Box**

AFTER THE LESSON

Name: _____ Date: _____

1. What does pressing Save do?

- ☐ Moves your work from memory into storage
- ☐ Makes the CPU faster
- ☐ Clears the workbench

2. Compare memory and storage in one or two sentences.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

**BELL
RINGER****2.4 Hardware and Software Work
Together**BEFORE THE
LESSON

Name: _____ Date: _____

A piano sits in a room with no music and no player. Can it play a song? What does it need? Write your thinking.

 **Word to watch for:** operating system. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**2.4 Hardware and Software Work Together** AFTER THE LESSON

Name: _____ Date: _____

1. Which of these is software?

- ☐ The motherboard
- ☐ The operating system
- ☐ The power supply

2. Name two operating systems and the kinds of devices that use them.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

CHAPTER 3

Computers That Talk



- | | | |
|-----|------------------------------------|------------------------------|
| 3.1 | What a Network Is | watch for: network |
| 3.2 | The Router, Wi-Fi, and Addresses | watch for: IP address |
| 3.3 | Packets: The Journey of a Web Page | watch for: packets |
| 3.4 | The Cloud and Backups | watch for: backup |

BELL RINGER**3.1 What a Network Is**

BEFORE THE LESSON

Name: _____ Date: _____

List three things your class shares, like a printer or a pencil sharpener. Why is sharing useful? What might computers share?

 **Word to watch for:** network. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**3.1 What a Network Is**

AFTER THE LESSON

Name: _____ Date: _____

1. The biggest network of all is the:

- ☐ Router
- ☐ Workbench
- ☐ Internet

2. Compare a wired connection and a wireless connection.

How sure
am I?

Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**3.2 The Router, Wi-Fi, and Addresses**

BEFORE THE LESSON

Name: _____ Date: _____

How does a mail carrier know which house gets which letter? Write what is on an envelope that helps it get to the right place.

 **Word to watch for:** IP address. Listen for it, and write what it means when you hear it.

 cut here

EXIT TICKET**3.2 The Router, Wi-Fi, and Addresses**

AFTER THE LESSON

Name: _____ Date: _____

1. Why might Wi-Fi be weak in a far-away bedroom?

- ☐ Distance and walls weaken the signal
- ☐ The cloud is full
- ☐ The tablet has too many apps

2. Explain how the router is like a mail carrier.

How sure
am I?

Got
it

Almost

Still
confused

Word to watch for meant:

**BELL
RINGER****3.3 Packets: The Journey of a Web
Page**BEFORE THE
LESSON

Name: _____ Date: _____

Imagine mailing a giant puzzle to a friend in pieces. How would you help them put it back together in the right order? List your ideas.

 **Word to watch for:** packets. Listen for it, and write what it means when you hear it.

 cut here

EXIT TICKET**3.3 Packets: The Journey of a Web Page**

AFTER THE LESSON

Name: _____ Date: _____

1. What does your device do if one packet goes missing?

- ☐ Shows the page without it
- ☐ Asks for that piece again
- ☐ Turns off the Wi-Fi

2. Describe how a video gets from a server to your screen in packets.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**3.4 The Cloud and Backups**

BEFORE THE LESSON

Name: _____ Date: _____

People say photos are saved 'in the cloud.' Where do you think they really go? Draw or write your best guess.

 **Word to watch for:** backup. Listen for it, and write what it means when you hear it.

 cut here

EXIT TICKET**3.4 The Cloud and Backups**

AFTER THE LESSON

Name: _____ Date: _____

1. Which is a safe cloud habit?

- ☐ Share links with anyone who asks
- ☐ Tell friends your cloud password
- ☐ Use only cloud apps your school or family approved

2. Explain why important files should have a backup.

How sure
am I?

Got
it

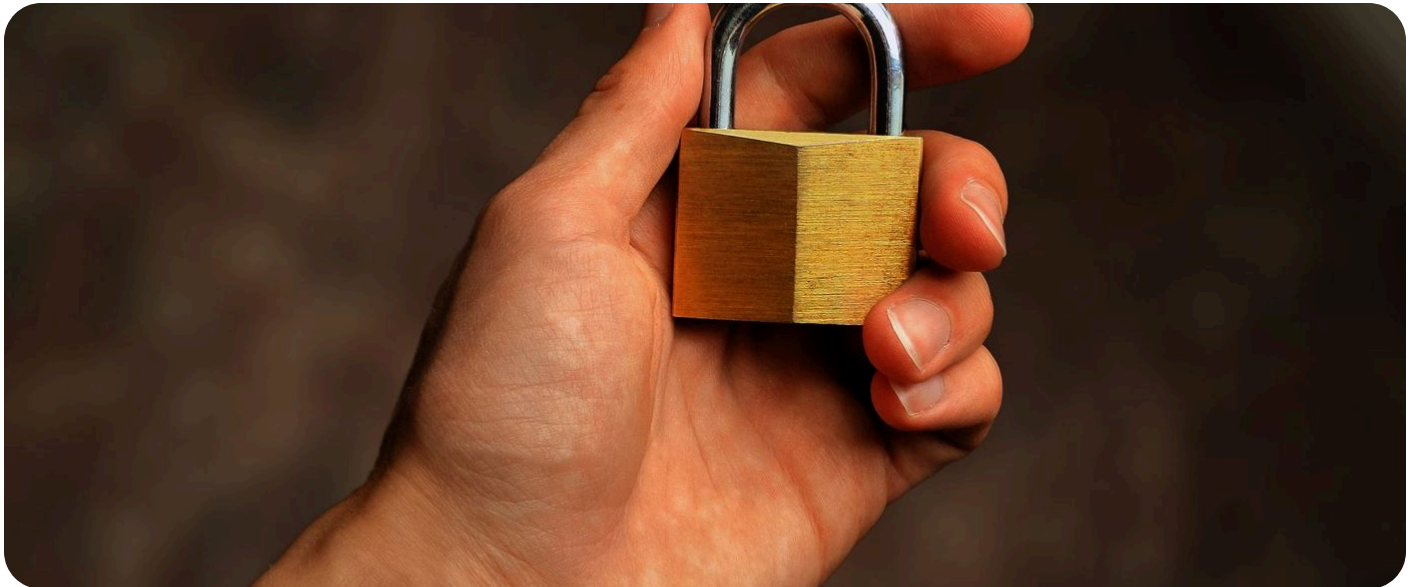
Almost

Still
confused

Word to watch for meant:

CHAPTER 4

Keeping Computers Healthy and Safe



- | | | |
|-----|-------------------------------|---------------------------------|
| 4.1 | Updates Are Vitamins | watch for: vulnerability |
| 4.2 | Passwords, Passkeys, and Keys | watch for: passkey |
| 4.3 | Tricky Messages and Pop-Ups | watch for: scam |
| 4.4 | Caring for Your Device | watch for: battery |

BELL RINGER**4.1 Updates Are Vitamins**

BEFORE THE LESSON

Name: _____ Date: _____

What do you do to keep your body healthy before you get sick? List three habits. How might a computer stay healthy?

 **Word to watch for:** vulnerability. Listen for it, and write what it means when you hear it.

 cut here**EXIT TICKET****4.1 Updates Are Vitamins**

AFTER THE LESSON

Name: _____ Date: _____

1. What can happen if a device never updates?

- ☐ Its weak spots stay open
- ☐ It gets faster every day
- ☐ It makes its own backups

2. Name the three things that are often inside an update.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**4.2 Passwords, Passkeys, and Keys**

BEFORE THE LESSON

Name: _____ Date: _____

Why do houses have locks and keys? Who gets a key to your home, and who doesn't? How is a password like a key?

 **Word to watch for:** passkey. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**4.2 Passwords, Passkeys, and Keys**

AFTER THE LESSON

Name: _____ Date: _____

1. Why is a passkey safer than a password?

- ☐ It is shorter to type
- ☐ It only works on the real website
- ☐ It can be shared with friends

2. Name two ways passwords can fall short.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**4.3 Tricky Messages and Pop-Ups**

BEFORE THE LESSON

Name: _____ Date: _____

Have you ever seen a message or ad that said you won something? How did it make you feel? What made you trust it or not trust it?

 **Word to watch for:** scam. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**4.3 Tricky Messages and Pop-Ups**

AFTER THE LESSON

Name: _____ Date: _____

1. A pop-up says 'Virus found! Call now!' What should you do?

- ☐ Click the X as fast as you can
- ☐ Call the number right away
- ☐ Stop, don't click, and show a grown-up

2. List the four red flags of a scam message.

How sure
am I?

Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**4.4 Caring for Your Device**

BEFORE THE LESSON

Name: _____ Date: _____

Think about how you take care of a bike or a favorite toy so it lasts. Write three care habits. Which ones might work for a tablet?

 **Word to watch for:** battery. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**4.4 Caring for Your Device**

AFTER THE LESSON

Name: _____ Date: _____

1. A tablet is hot and looks swollen. What should you do?

- ☐ Stop using it and get a grown-up
- ☐ Charge it on a pillow
- ☐ Open the case to look inside

2. Explain why you back up files before deleting anything.

How sure
am I?

Got
it

Almost

Still
confused

Word to watch for meant:

CHAPTER 5

Be a Fix-It Detective



5.1 Detectives Ask Questions First

watch for: **evidence**

5.2 The Big Three Fixes

watch for: **restart**

5.3 One Change at a Time

watch for: **clue**

5.4 Getting Help and IT Careers

watch for: **ticket**

BELL RINGER**5.1 Detectives Ask Questions First**

BEFORE THE LESSON

Name: _____ Date: _____

What does a good detective do when they arrive at a mystery? List three things. Why don't detectives just grab the first suspect?

 **Word to watch for:** evidence. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**5.1 Detectives Ask Questions First**

AFTER THE LESSON

Name: _____ Date: _____

1. Which is good evidence?

- ☐ It's broken
- ☐ The screen went black, but the music still plays
- ☐ I don't like this tablet

2. Write the three detective questions to ask before touching anything.

How sure
am I?

Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**5.2 The Big Three Fixes**

BEFORE THE LESSON

Name: _____ Date: _____

When a device stops working at home, what do people usually try first? Write as many ideas as you can.

 **Word to watch for:** restart. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**5.2 The Big Three Fixes**

AFTER THE LESSON

Name: _____ Date: _____

1. Every device in the house lost the internet. The problem is probably:

- ☐ Your tablet's battery
- ☐ Your tablet's storage
- ☐ The router or the internet connection

2. Name the Big Three Fixes and a clue that points to one of them.

How sure
am I?

Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**5.3 One Change at a Time**

BEFORE THE LESSON

Name: _____ Date: _____

A plant isn't growing. You move it to the window, water it more, and add plant food all at once. It grows! What do you know, and what don't you know?

 **Word to watch for:** clue. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**5.3 One Change at a Time**

AFTER THE LESSON

Name: _____ Date: _____

1. Why change only one thing at a time?

- ☐ So each result becomes a clue
- ☐ So the device restarts faster
- ☐ So nobody notices

2. Explain why a fix that didn't work is still a clue.

How sure
am I?Got
it

Almost

Still
confused

Word to watch for meant:

BELL RINGER**5.4 Getting Help and IT Careers**

BEFORE THE LESSON

Name: _____ Date: _____

Who fixes the computers and Wi-Fi at our school? Write what you think their day looks like. What questions would you ask them?

 **Word to watch for:** ticket. Listen for it, and write what it means when you hear it.



cut here

EXIT TICKET**5.4 Getting Help and IT Careers**

AFTER THE LESSON

Name: _____ Date: _____

1. When should you stop and get a grown-up right away?

- ☐ When a game is fun
- ☐ When a device is hot, cracked, or sparking
- ☐ When you finish your homework

2. List the four parts of a good helper report.

How sure
am I?

Got
it

Almost

Still
confused

Word to watch for meant:



Teacher Key

Exit-ticket multiple-choice answers, and what a passing short response contains.

Chapter 1: Meet the Machine

1.1 Kinds of Computers and What They Do Best · MC: **A** (Collect and share information) · word: **device**

Short response should show: Name two kinds of computers and one thing each one is best at.

1.2 Input, Processing, and Output · MC: **B** (A microphone hearing your voice) · word: **processing**

Short response should show: Explain why a touchscreen can be both input and output.

1.3 Ports, Plugs, and Wireless Doorways · MC: **C** (Give it to a teacher without plugging it in) · word: **port**

Short response should show: Describe one rule that keeps doorways like ports and Bluetooth safe.

1.4 Same Jobs, Different Shapes · MC: **A** (They both have input, processing, and output) · word: **technician**

Short response should show: Write one way computers changed from ENIAC to the smartphone.

Chapter 2: A Peek Inside the Case

2.1 The CPU Is the Brain · MC: **B** (Doing many small picture jobs at the same time) · word: **CPU**

Short response should show: Explain why the CPU is like a speedy chef following a recipe.

2.2 Memory Is the Workbench · MC: **C** (It clears) · word: **memory**

Short response should show: Explain what a bit is, using the words on and off.

2.3 Storage Is the Toy Box · MC: **A** (Moves your work from memory into storage) · word: **storage**

Short response should show: Compare memory and storage in one or two sentences.

2.4 Hardware and Software Work Together · MC: **B** (The operating system) · word: **operating system**

Short response should show: Name two operating systems and the kinds of devices that use them.

Chapter 3: Computers That Talk

3.1 What a Network Is · MC: **C** (Internet) · word: **network**

Short response should show: Compare a wired connection and a wireless connection.

3.2 The Router, Wi-Fi, and Addresses · MC: **A** (Distance and walls weaken the signal) · word: **IP address**

Short response should show: Explain how the router is like a mail carrier.

3.3 Packets: The Journey of a Web Page · MC: **B** (Asks for that piece again) · word: **packets**

Short response should show: Describe how a video gets from a server to your screen in packets.

3.4 The Cloud and Backups · MC: **C** (Use only cloud apps your school or family approved) · word: **backup**

Short response should show: Explain why important files should have a backup.

Chapter 4: Keeping Computers Healthy and Safe

4.1 Updates Are Vitamins · MC: **A** (Its weak spots stay open) · word: **vulnerability**

Short response should show: Name the three things that are often inside an update.

4.2 Passwords, Passkeys, and Keys · MC: **B** (It only works on the real website) · word: **passkey**

Short response should show: Name two ways passwords can fall short.

4.3 Tricky Messages and Pop-Ups · MC: **C** (Stop, don't click, and show a grown-up) · word: **scam**

Short response should show: List the four red flags of a scam message.

4.4 Caring for Your Device · MC: **A** (Stop using it and get a grown-up) · word: **battery**

Short response should show: Explain why you back up files before deleting anything.

Chapter 5: Be a Fix-It Detective

5.1 Detectives Ask Questions First · MC: **B** (The screen went black, but the music still plays) · word: **evidence**

Short response should show: Write the three detective questions to ask before touching anything.

5.2 The Big Three Fixes · MC: **C** (The router or the internet connection) · word: **restart**

Short response should show: Name the Big Three Fixes and a clue that points to one of them.

5.3 One Change at a Time · MC: **A** (So each result becomes a clue) · word: **clue**

Short response should show: Explain why a fix that didn't work is still a clue.

5.4 Getting Help and IT Careers · MC: **B** (When a device is hot, cracked, or sparking) · word: **ticket**

Short response should show: List the four parts of a good helper report.