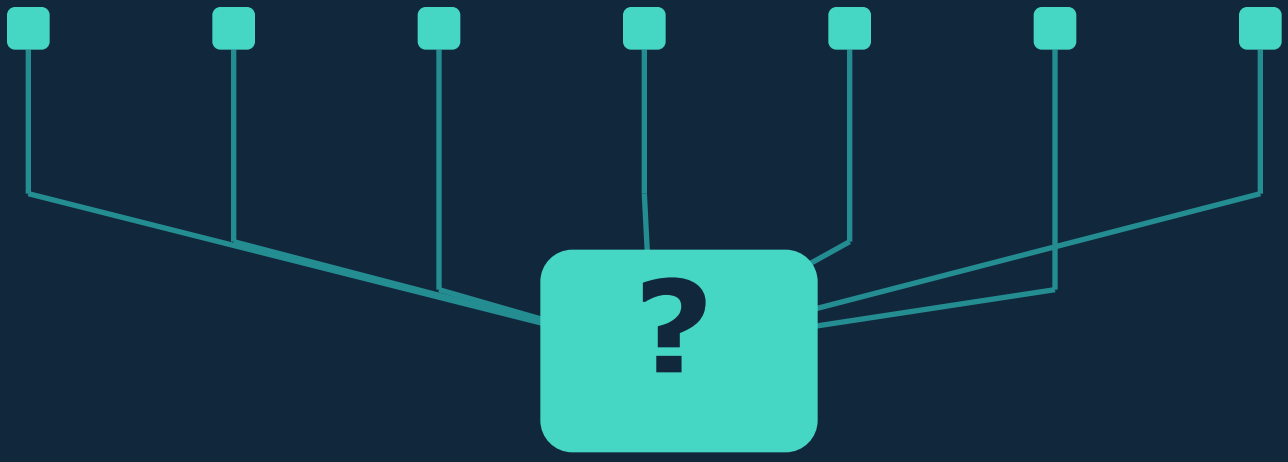
A-HAWS / FREE PREVIEW

TECH QUEST

EXPLORER 01

Wired for Curiosity

How Computers, the Internet, and Everyday Tech Work



AGES 10-12 / PAPER ACTIVITIES / FIRST EDITION

WELCOME

Your curiosity is the starting point.

You already use technology. This book helps you look inside the ideas that make it work. You do not need to own a new computer or know how to code.

YOUR MISSION

By the end, sketch a helpful gadget and explain what information goes in, which rule it follows, and what comes out.

Inside the full book

01 Explore: pages 3-8 explain devices and data.

02 Think: pages 9-16 explore instructions, networks, AI, and safer choices.

03 Create: pages 17-20 turn one interest into a paper invention.

04 Check: pages 21-25 hold a quiz, answers, a glossary, and resources.

Read in short sessions. Activities take about 5-15 minutes each, depending on the reader. Use a notebook or print activity pages. Older beginners can try the Level Up prompts. No online account or equipment purchase is needed.

01 / SYSTEMS

Input. Process. Output.

A system is a set of parts that work together. Many digital systems take information in, follow instructions, and produce a result. This simple model helps us ask useful questions.

1

INPUT
Tap the camera button.

>

2

PROCESS
The camera turns light into a digital image.

>

3

OUTPUT
A photo appears on screen.

ONE MORE PART: STORAGE

Saving keeps the photo so you can open it again. Showing a photo on screen and saving a file are different actions.

Try it: in a game, you press JUMP. What is the input? What could the output be?

Model limit: real devices do many things at once. We are tracing just one action. This preview has possible answers on its closing page.

02 / DEVICES

Two teams, one machine.

HARDWARE

The physical parts: a screen, keyboard, camera, chip, or cable. You could touch these parts if they were safely accessible.

SOFTWARE

Programs and instructions: a drawing app, a game, or an operating system. You use software through hardware.

Imagine a music player. The speaker is hardware. The app that chooses and plays a song is software. Neither description alone explains the whole experience.

Sort these: microphone / drawing app / touch screen / game program. Write H for hardware and S for software.

Look at devices from the outside. Never open equipment or remove batteries for these missions. Sorting answers are on the preview's closing page.

03 / COMPUTER PARTS

Meet the behind-the-scenes team.

CPU: CENTRAL PROCESSING UNIT

Carries out program instructions. A CPU can do arithmetic, compare values, and help coordinate work. It does not understand your goals the way a person does.

RAM: WORKING MEMORY

Holds data and instructions currently in use. Ordinary working RAM loses its contents when power is off.

STORAGE: SAVED INFORMATION

Keeps files and programs, usually even with the power off. An SSD is one kind of storage. Saving a drawing puts its file in storage.

Think of a project desk: you work with papers on the desk, while a cupboard keeps saved work. RAM is a little like the desk; storage is a little like the cupboard.

Analogy limit: computer parts move electrical signals, not paper. More RAM and more storage solve different problems. The full book includes linked references.

YOUR NEXT MISSION

Make the idea your own.

You have met inputs, outputs, hardware, software, and the parts inside a computer. Try one paper challenge before you choose your next topic.

FIVE-MINUTE CHALLENGE

Sketch a gadget that helps someone remember a small task. Label an input and an output. Write one IF / OTHERWISE rule that connects them.

My gadget helps with...

My rule is...

A-HAWS / Tech Quest: Wired for Curiosity is a 26-page eBook for ages 10-12. The full book adds binary and pixel activities, algorithms, networks, AI, a guided invention project, answers, and a glossary. This preview contains selected introductory pages plus this closing mission. Page 3 example: a button press is input; a character jumping is output. Page 4 sorting: H, S, H, S.