

FREE PRINTABLE PACK · NO DEVICES NEEDED

# AI and Computer Science Worksheets

**1st Grade**

**Ages 6–7**

**5 worksheets** aligned to the 2026 CSTA PK–12 Computer Science Standards, with teacher notes and answer keys.

6



**How AI Uses Patterns**

E1-ALG-ML-02 · AI

7



**Before and After**

E1-SOC-HI-14 · AI

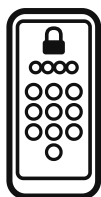
8



**People Are Great At...**

E1-SOC-HU-15 · AI

9



**Keep It Locked**

E1-SYS-SE-12 · Safety

10



**My Tech Job**

E1-SYS-IM-13 · Safety

- 10 student pages, black and white
- 5 answer keys

- 5 teacher notes pages
- A standards map for the whole set

# What's inside

5 worksheets, one for each standard below. Each has a read-aloud box, so it works without a video.

| Worksheet                                               | Standard                      | Children learn                                 | Pages                                  |
|---------------------------------------------------------|-------------------------------|------------------------------------------------|----------------------------------------|
| <b>6</b> <b>How AI Uses Patterns</b><br>Pattern Finders | E1-ALG-ML-02 <b>AI</b>        | How AI uses patterns in data                   | Student: 4–5<br>Notes: 14<br>Key: 19   |
| <b>7</b> <b>Before and After</b><br>Change Spotters     | E1-SOC-HI-14 <b>AI</b>        | How an everyday activity changed with new tech | Student: 6–7<br>Notes: 15<br>Key: 20   |
| <b>8</b> <b>People Are Great At...</b><br>Team Players  | E1-SOC-HU-15 <b>AI</b>        | What people and computers each do well         | Student: 8–9<br>Notes: 16<br>Key: 21   |
| <b>9</b> <b>Keep It Locked</b><br>Password Pros         | E1-SYS-SE-12<br><b>Safety</b> | Keep devices and accounts locked               | Student: 10–11<br>Notes: 17<br>Key: 22 |
| <b>10</b> <b>My Tech Job</b><br>Job Squad               | E1-SYS-IM-13<br><b>Safety</b> | My jobs when I use tech                        | Student: 12–13<br>Notes: 18<br>Key: 23 |

## How to use this pack

- Print at 100% (“Actual size”) on US Letter. On A4, choose “Fit to page”.
- Student pages come first, two per worksheet. Teacher notes and answer keys are at the back, in the same order.
- Each worksheet takes about 20–25 minutes (our estimate, not yet tested in class).
- Children need a pencil and crayons. No scissors or devices needed.
- **AI** means CSTA tags the standard as AI-related. **Safety** means privacy and responsible use.

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# 16 worksheets, Pre-K to 2nd grade

Every worksheet, matched to its 2026 CSTA standard, the nearest year group in England and any matching Learn with Karyn video. This pack's rows are shaded.

| Standard                                        | Children learn                                 | Our worksheet                        | Learn with Karyn video           | England            |
|-------------------------------------------------|------------------------------------------------|--------------------------------------|----------------------------------|--------------------|
| <b>Pre-K &amp; Kindergarten pack · ages 4–6</b> |                                                |                                      |                                  |                    |
| EK-ALG-ML-02 <b>AI</b>                          | Sort things into groups using clues            | <b>1. Sort It Out!</b>               | Ep. 1: What Is a Computer?       | Reception & Year 1 |
| EK-SOC-HI-14 <b>AI</b>                          | Spot how everyday tools changed over time      | <b>2. Then and Now</b>               | —                                | Reception & Year 1 |
| EK-SOC-HU-15 <b>AI</b>                          | People plan, build and test machines           | <b>3. People Make Machines</b>       | Ep. 1: What Is a Computer?       | Reception & Year 1 |
| EK-SYS-SE-12                                    | Tell private information from OK-to-share      | <b>4. Private or OK to Share?</b>    | —                                | Reception & Year 1 |
| EK-SYS-IM-13                                    | Use tech in kind, careful ways                 | <b>5. Kind and Careful with Tech</b> | —                                | Reception & Year 1 |
| <b>1st Grade pack · ages 6–7</b>                |                                                |                                      |                                  |                    |
| E1-ALG-ML-02 <b>AI</b>                          | How AI uses patterns in data                   | <b>6. How AI Uses Patterns</b>       | Ep. 2: What Is Smart Technology? | Year 2             |
| E1-SOC-HI-14 <b>AI</b>                          | How an everyday activity changed with new tech | <b>7. Before and After</b>           | Ep. 2: What Is Smart Technology? | Year 2             |
| E1-SOC-HU-15 <b>AI</b>                          | What people and computers each do well         | <b>8. People Are Great At...</b>     | —                                | Year 2             |
| E1-SYS-SE-12                                    | Keep devices and accounts locked               | <b>9. Keep It Locked</b>             | —                                | Year 2             |
| E1-SYS-IM-13                                    | My jobs when I use tech                        | <b>10. My Tech Job</b>               | —                                | Year 2             |
| <b>2nd Grade pack · ages 7–8</b>                |                                                |                                      |                                  |                    |
| E2-ALG-ML-02 <b>AI</b>                          | How data trains an AI model                    | <b>11. Train, Test, Fix</b>          | —                                | Year 3             |
| E2-DAT-IM-10 <b>AI</b>                          | Fair and unfair ways to collect data           | <b>12. Fair Data Detectives</b>      | —                                | Year 3             |
| E2-SOC-HI-14 <b>AI</b>                          | Inventors from many places and times           | <b>13. Inventors Through Time</b>    | —                                | Year 3             |
| E2-SOC-HU-15 <b>AI</b>                          | How people made tech to solve problems         | <b>14. Problem Solvers</b>           | —                                | Year 3             |
| E2-SYS-SE-12                                    | Online actions have real-world results         | <b>15. What Happens Next?</b>        | —                                | Year 3             |
| E2-SYS-IM-13                                    | Benefits and harms of using tech               | <b>16. Helpful or Harmful?</b>       | —                                | Year 3             |

Standard codes © CSTA, [csteachers.org/pk12standards](https://csteachers.org/pk12standards) (CC BY-NC-SA 4.0); the summaries are ours. **AI** marks standards CSTA tags as AI-related. England years are the nearest match by age. Videos and more free worksheets: [changetheworldwithkaryn.com](https://changetheworldwithkaryn.com).

# How AI Uses Patterns

Name \_\_\_\_\_

 I **can** tell how AI uses patterns in data to decide things and make new things.

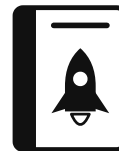
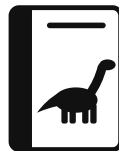
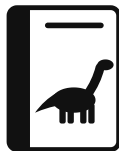
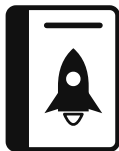
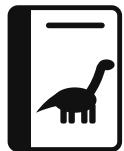
## READ ALOUD

AI is a kind of computer technology that people make. It is not alive, and it is not magic. People give AI lots of examples, called **data**. AI looks for **patterns** in the data: things that show up again and again. Then it uses the patterns to decide something, like which book to suggest, or to make something new.

## 1 Find the pattern, then decide

A book app keeps a list of the books Sam borrows. This list is the app's data. Count each kind of book.

### SAM'S BOOKS: THE APP'S DATA



### COUNT EACH KIND



dinosaur books



space books



ocean books

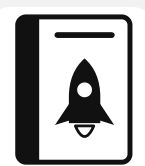
How many more dinosaur books  
than space books?

### BE THE AI!

Use the pattern to decide. Which book  
will the app suggest to Sam next?  
**Circle one.**



dinosaur book



space book



ocean book



**Talk with a partner:** Could the app be wrong? What if Sam wants an ocean book next time?

# How AI Uses Patterns

page 2

Name \_\_\_\_\_

## 2 Make something new

 AI makes new

An AI looked at lots of house drawings to find the pattern. Here are three of them.

### THE AI'S EXAMPLES



What do all three houses have?  
Check each one.

- |                          |                                                                                    |        |                          |                                                                                     |         |
|--------------------------|------------------------------------------------------------------------------------|--------|--------------------------|-------------------------------------------------------------------------------------|---------|
| <input type="checkbox"/> |  | a roof | <input type="checkbox"/> |  | a door  |
| <input type="checkbox"/> |  | wheels | <input type="checkbox"/> |  | windows |

Be the AI! Use the pattern to draw a brand-new house, not a copy.

### MY NEW HOUSE

## 3 Show what you know

Circle one in each box.

What is AI?



a tool people  
make



a living thing

What does AI use to find  
patterns?



magic



lots of examples

A music app picked a song  
for you. What did it do?



AI decides



AI makes new

How did I do? Color a face.



I can do it!



Almost!



I need help.

### Did you know?

Some AI tools look at millions of examples to find patterns. That's a lot of data!

# Before and After

Name \_\_\_\_\_

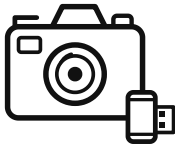
 I can compare how an everyday activity changed when new tech came along.

 READ ALOUD

Every day, people take photos, check the weather and talk with family. New computer technology can change the way we do these things. Before phone cameras, people waited days to see their photos. Now we see them right away! Some new technology uses AI, like a smart speaker that understands you.

## 1 Taking photos: before and after

Write **B** for before or **A** for after under each picture.

**BEFORE**

A film camera

**B****AFTER**

A phone camera

**A**

see it right away



keep it in an album



wait days to see it



keep it on a screen

What stayed  
the same?  
Circle one.



We still wait days to  
see our photos.



We still take photos of  
special days.



**Ask a grown-up:** How did you take photos when you were little? Tell a friend what you found out.

# Before and After

page 2

Name \_\_\_\_\_

2

## Checking the weather: before and after

Look at both ways. Then circle **B** or **A** for each question.

BEFORE



the TV weather show



the newspaper

AFTER



ask a smart speaker

1 Which way can you use any time you want?

☐ B ☐ A

2 Which way uses paper?

☐ B ☐ A

3 Which way came first?

☐ B ☐ A

4 Which way uses AI to understand your words?

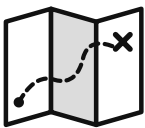
☐ B ☐ A

What stayed the same? We still check the weather to see if we need \_\_\_\_\_.

3

## Show what you know

Circle one in each box.

Finding the way. Which is the **before** way?

a paper map



a map app

Talking to family far away. What can you do **after** video calls came along?

wait days for a letter



see faces while you talk

How did I do? Color a face.



I can do it!



Almost!



I need help.

Did you know?

Smart speakers learned to understand voices from lots and lots of examples of people talking.

# People Are Great At...

Name \_\_\_\_\_



I can tell what people do well and what computers do well.



## READ ALOUD

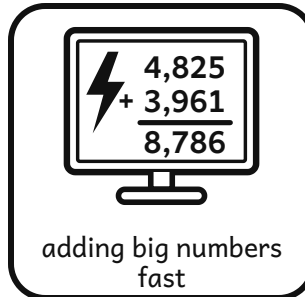
People and computers are great at different things. Computers, including AI, can do math fast, remember lots of things and do the same job again and again without getting tired. People are great at understanding feelings, being kind, tasting food and making up new games together. Together, we're a great team!

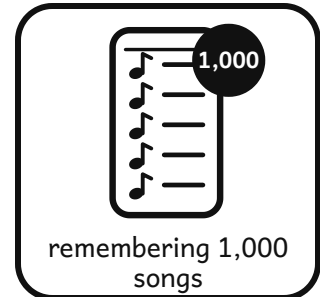
1

## Who is great at it?

Circle **People** or **Computers** for each one.


☐ People

☐ Computers

☐ People

☐ Computers

☐ People

☐ Computers

☐ People

☐ Computers

☐ People

☐ Computers

☐ People

☐ Computers


Talk with a partner: What are you great at? What is a computer great at?

# People Are Great At...

page 2

Name \_\_\_\_\_

## 2 Make a great team!

Think of a job a person and a computer could do together. Draw them doing it. Then finish the sentences.

Ideas:

the library

a bakery

the doctor's office

school

### OUR TEAM

The person is great at \_\_\_\_\_

The computer is great at \_\_\_\_\_

## 3 Show what you know

Circle one in each box.

Who is great at giving a hug?



a person



a computer

Who is great at sorting 1,000 photos super fast?



a person



a computer

How did I do? Color a face.



I can do it!



Almost!



I need help.

### Did you know?

A computer can add millions of numbers in one second. It never gets tired or bored!

# Keep It Locked

Name \_\_\_\_\_

 I can tell how to keep my devices and online accounts safe.

## READ ALOUD

Tablets, computers and online accounts need locks, just like a house! A password is like a key. Keep it a secret from friends, and share it only with a grown-up who keeps you safe. Lock the screen and log out when you are done. A good password is long and hard to guess, so not 1234!

## 1 Keeps it locked or lets others in?

Circle one for each picture.



Keeps it locked



Lets others in



Keeps it locked



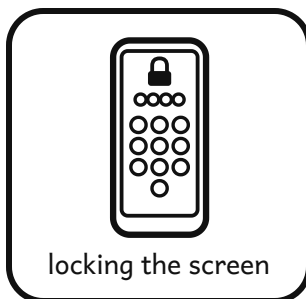
Lets others in



Keeps it locked



Lets others in



Keeps it locked



Lets others in



Keeps it locked



Lets others in



Keeps it locked



Lets others in



**Talk with a partner:** Why is 1234 easy to guess? What would make a password harder to guess?

# Keep It Locked

page 2

Name \_\_\_\_\_

## 2 Make a strong pretend password

Long passwords are hard to guess. Here is a trick: put three random words together. Pick three words from the box.

### WORD BOX



kite



hat



fish



sock



ball



rocket

My pretend password: \_\_\_\_\_



Real passwords are secrets. Never write one where others can see it.

## 3 Show what you know

Circle one in each box.

A pop-up says, "Type your password to win a prize!" What should you do?



ask a grown-up first



type it in

Which password is harder to guess?



cat



GreenFrogPizza

How did I do? Color a face.



I can do it!



Almost!



I need help.

### Did you know?

Some phones and tablets unlock with a fingerprint or a face. It's a lock made just for you!

# My Tech Job

Name \_\_\_\_\_

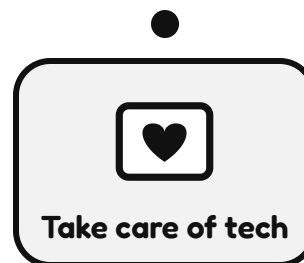
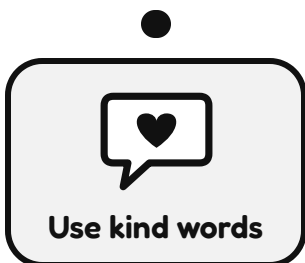
 I can describe my jobs when I use tech.

 **READ ALOUD**

When you use a tablet or computer, you have important jobs! You take care of the tech. You use kind words, even in messages. You follow the tech rules, like stopping when time is up. If something seems odd or worries you, you tell a grown-up. Doing your tech jobs helps everyone.

## 1 Match each picture to its job

Draw a line from each picture to the tech job it shows.



**Talk with a partner:** Which tech job do you already do at home or at school?

# My Tech Job

page 2

Name \_\_\_\_\_

## 2 My tech job badge

Pick your most important tech job. Draw yourself doing it. Then finish the sentences.

Jobs: ☐ Take care of tech ☐ Use kind words ☐ Follow the tech rules ☐ Tell a grown-up

### TECH JOB BADGE



My most important tech job is

\_\_\_\_\_

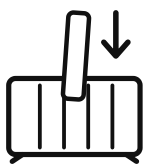
because

\_\_\_\_\_

## 3 Show what you know

Circle one in each box.

You are done with the class tablet. What is your job?



put it back where it goes



leave it on the floor

You want to take a photo of your friend. What is your job?



SNAP!

just take it



ask your friend first

How did I do? Color a face.



I can do it!



Almost!



I need help.

### Did you know?

Old tablets and computers can be recycled, so their parts can be used again. Ask a grown-up where to take them!

# Teacher Notes

How AI Uses Patterns: Pattern Finders · 1st Grade (ages 6–7)

|                           |                                                                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard</b>           | 2026 CSTA PK–12 Computer Science Standards, <b>E1-ALG-ML-02</b> (Algorithms & Design: Machine Learning), tagged AI-related by CSTA         |
| <b>Also practices</b>     | Common Core <b>1.MD.C.4</b> (data in up to three groups; how many more) · <b>SL.1.1</b> (partner talk)                                     |
| <b>Time and materials</b> | About 20–25 minutes (our estimate, not yet tested in class). Student pages per child, a pencil and crayons. No scissors or devices needed. |
| <b>Printing</b>           | US Letter at 100% (“Actual size”). On A4, choose “Fit to page”. Answer keys are at the back.                                               |

## The standard in plain words

Children recognize that AI is a technology people make. It finds patterns in data (lots of examples) and uses them to decide things, like which book to suggest, or to make new things, like a picture or a song.

### What it asks at this age

- AI is a technology people make, not alive or magic.
- Data is lots of examples; a pattern shows up again and again.
- AI uses patterns to decide (suggest, sort, spot) or to make something new.

### What it doesn't ask yet

- How data trains a model (2nd grade, E2-ALG-ML-02).
- How new data changes a model (3rd grade, E3-ALG-ML-02).
- Using an AI tool. This sheet needs no device.

**Good to know: AI can be wrong.** A pattern is a good guess, not a promise; Sam might want an ocean book next! Children who hear this early learn to check what AI tells them.

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## How to teach it

1. **Warm up (3 minutes).** “What do you pick again and again: a snack, a game, a book? That’s a pattern!”
2. **Read aloud** the box on page 1.
3. **Find the pattern, then decide.** Children count, compare and circle the app’s pick.
4. **Make something new.** Children check what all the houses have, then draw a new one.
5. **Show what you know** is your quick check. Then children color a face.

## Talk prompts

- “Could the app be wrong?” Yes: patterns are good guesses.
- “What did your house keep from the pattern? What’s new?”
- “Where have you seen tech suggest or make something?”

## Support and stretch

**Support:** Sort real books or picture cards into three piles and count them before deciding.

**Stretch:** Collect class data for five days, such as the weather. Find the pattern and predict tomorrow.

## Why it's AI learning

This is the standard's big idea: AI finds patterns in data, then decides or makes something new. Doing both by hand shows children that AI is counting and noticing, not magic.

## For teachers in England

1st grade matches Year 2. Part 1 fits Year 2 statistics: counting objects in each category, then sorting and comparing the categories. KS1 computing has no AI yet; the new curriculum (first taught from September 2028) plans for pupils to know “from a young age how computers can be trained using data.” Check [gov.uk](https://gov.uk) for updates.

# Teacher Notes

Before and After: Change Spotters · 1st Grade (ages 6–7)

|                           |                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard</b>           | 2026 CSTA PK–12 Computer Science Standards, <b>E1-SOC-HI-14</b> (Computing & Society: History of Computing), tagged AI-related by CSTA      |
| <b>Also practices</b>     | C3 Framework <b>D2.His.2.K-2</b> (compare life in the past to life today) · Common Core <b>SL.1.3</b> (ask questions to gather information) |
| <b>Time and materials</b> | About 20–25 minutes (our estimate, not yet tested in class). Student pages per child, a pencil and crayons. No scissors or devices needed.  |
| <b>Printing</b>           | US Letter at 100% (“Actual size”). On A4, choose “Fit to page”. Answer keys are at the back.                                                |

## The standard in plain words

Children compare how one everyday activity, such as taking photos or checking the weather, changed after a particular computing technology came along: what people did before, what they do now and what stayed the same.

### What it asks at this age

- Name an everyday activity and the technology that changed it.
- Say what changed: the tools, the steps, how long it takes.
- Say what stayed the same: why we do it.

### What it doesn't ask yet

- How people from different cultures and times designed tech (2nd grade, E2-SOC-HI-14).
- Judging changes as helpful or harmful (2nd grade, E2-SYS-IM-13).
- Dates and inventors' names.

**Good to know: “before” doesn't mean gone.** Some families still use film cameras, newspapers and letters, and that's fine. “Before” means before the new technology came along.

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## How to teach it

1. **Warm up (3 minutes).** “How do you find out if it will rain today?” List the ways together.
2. **Read aloud** the box on page 1.
3. **Taking photos.** Children write B or A under each picture, then circle what stayed the same.
4. **Checking the weather.** Children circle B or A for each question and finish the sentence.
5. **Show what you know** is your quick check. Then children color a face.

## Talk prompts

- “What can people do now that they couldn't do before?”
- “What stayed the same?” We still want photos, weather news and time with family.
- “Which new technology uses AI?” The smart speaker.

## Support and stretch

**Support:** Compare a real newspaper weather page with a weather app, side by side.

**Stretch:** Children interview a grown-up about music, maps or phone calls, then draw before and after.

## Why it's AI learning

AI is one of the newest technologies changing everyday activities, from asking a speaker about the weather to apps that translate speech. Comparing before and after helps children notice those changes as they happen.

## For teachers in England

1st grade matches Year 2. Fits KS1 history (“changes within living memory”) and KS1 computing (“recognise common uses of information technology beyond school”). Check the exact wording on [gov.uk](https://gov.uk).

# Teacher Notes

People Are Great At... Team Players · 1st Grade (ages 6–7)

|                           |                                                                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard</b>           | 2026 CSTA PK–12 Computer Science Standards, <b>E1-SOC-HU-15</b> (Computing & Society: Humans & Computing), tagged AI-related by CSTA       |
| <b>Also practices</b>     | Common Core <b>W.1.2</b> (write facts about a topic) · <b>SL.1.1</b> (partner talk)                                                        |
| <b>Time and materials</b> | About 20–25 minutes (our estimate, not yet tested in class). Student pages per child, a pencil and crayons. No scissors or devices needed. |
| <b>Printing</b>           | US Letter at 100% (“Actual size”). On A4, choose “Fit to page”. Answer keys are at the back.                                               |

## The standard in plain words

Children tell apart things people do well, like understanding feelings, using their senses and making up new ideas together, and things computers do well, like fast math, remembering lots of information and repeating a job without getting tired.

### What it asks at this age

- Sort activities into “people do well” and “computers do well.”
- Give a reason: feelings, senses and ideas, or speed, memory and repeating.
- See that people and computers can work as a team.

### What it doesn't ask yet

- How people created tech to solve problems (2nd grade, E2-SOC-HU-15).
- Which one is “smarter.” The point is different strengths.
- When to use AI and when not to.

**Good to know: talk about today, not forever.** Computers, and AI especially, keep getting better at some things people do. Say “Today, people are great at...” and remind children that people decide how computers are used.

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## How to teach it

1. **Warm up (3 minutes).** “What’s something you’re great at? What is a computer great at?”
2. **Read aloud** the box on page 1.
3. **Who is great at it?** Children circle People or Computers for each card, then talk with a partner.
4. **Make a great team!** Children draw a team job and finish the sentences.
5. **Show what you know** is your quick check. Then children color a face.

## Talk prompts

- “Can a computer taste soup?” No, but it can remember the recipe.
- “Why is a computer great at doing a job 100 times?” It doesn’t get tired or bored.
- “What job could you and a computer do together?”

## Support and stretch

**Support:** Act out each card. Ask: is it a feelings-and-senses job or a speed-and-memory job?

**Stretch:** Race a calculator to add five numbers. Then list jobs a calculator can’t do.

## Why it's AI learning

Children may hear that AI “can do anything.” Sorting strengths shows what AI is great at (speed, memory, patterns) and what people are great at (care, senses, ideas together), so AI is a helper and people stay in charge.

## For teachers in England

1st grade matches Year 2. KS1 computing has no AI content yet; this links to “recognise common uses of information technology beyond school.” AI literacy is planned for the new national curriculum from September 2028.

# Teacher Notes

Keep It Locked: Password Pros · 1st Grade (ages 6–7)

|                           |                                                                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard</b>           | 2026 CSTA PK–12 Computer Science Standards, <b>E1-SYS-SE-12</b> (Systems & Security: Security). CSTA does not tag it as AI-related.        |
| <b>Also practices</b>     | Common Core <b>SL.1.1</b> (partner talk) · CASEL <b>responsible decision-making</b>                                                        |
| <b>Time and materials</b> | About 20–25 minutes (our estimate, not yet tested in class). Student pages per child, a pencil and crayons. No scissors or devices needed. |
| <b>Printing</b>           | US Letter at 100% (“Actual size”). On A4, choose “Fit to page”. Answer keys are at the back.                                               |

## The standard in plain words

Children describe simple ways to keep devices and online accounts safe from people who shouldn’t get in: lock the screen, log out, keep passwords secret, pick ones that are hard to guess and ask before typing one anywhere new.

### What it asks at this age

- Lock the screen and log out, especially on shared devices.
- Keep passwords secret from friends; a trusted grown-up can know them.
- Pick passwords that are hard to guess; ask before typing one anywhere new.

### What it doesn’t ask yet

- How online actions have real-world results (2nd grade, E2-SYS-SE-12).
- Setting up accounts or real passwords on their own.
- Two-step sign-in and other settings.

**Good to know: secret from friends, never from grown-ups.** Children can always tell a trusted grown-up if someone asks for their password. Part 2 is a pretend password: real ones never go on paper others can see.

Standard code © CSTA, [csteachers.org/pk12standards](https://csteachers.org/pk12standards) (CC BY-NC-SA 4.0). The plain-words version and the two lists are our reading of the standard; CSTA’s own clarification is on its site.

## How to teach it

1. **Warm up (3 minutes).** “How do we keep a house safe when we go out?”
2. **Read aloud** the box on page 1.
3. **Keeps it locked or lets others in?** Children circle a chip for each picture, then talk with a partner.
4. **Pretend password.** Children join three words from the box.
5. **Show what you know** is your quick check. Then children color a face.

## Talk prompts

- “Why is 1234 easy to guess?” Lots of people use it.
- “Who can know your password?” You and a grown-up who keeps you safe.
- “What if a game asks for your password?” Ask a grown-up first.

## Support and stretch

**Support:** Use a toy padlock and key. Lock and unlock a box as you talk through each card.

**Stretch:** Children explain to a partner why three random words beat a name or 1234.

## Why it matters for AI

CSTA doesn’t tag this standard as AI-related, but it matters for AI. AI apps and smart speakers are often linked to family accounts, and some devices use face recognition to unlock. The same habits keep them safe.

## For teachers in England

1st grade matches Year 2. Fits KS1 computing (“use technology safely and respectfully, keeping personal information private”). The three-random-words tip is the UK National Cyber Security Centre’s advice.

# Teacher Notes

My Tech Job: Job Squad · 1st Grade (ages 6–7)

|                           |                                                                                                                                                         |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard</b>           | 2026 CSTA PK–12 Computer Science Standards, <b>E1-SYS-IM-13</b> (Systems & Security: Impacts of Computing Systems). CSTA does not tag it as AI-related. |
| <b>Also practices</b>     | Common Core <b>W.1.1</b> (an opinion with a reason) · <b>SL.1.1</b> (partner talk)                                                                      |
| <b>Time and materials</b> | About 20–25 minutes (our estimate, not yet tested in class). Student pages per child, a pencil and crayons. No scissors or devices needed.              |
| <b>Printing</b>           | US Letter at 100% (“Actual size”). On A4, choose “Fit to page”. Answer keys are at the back.                                                            |

## The standard in plain words

Children describe their own jobs when they use computers, tablets and other digital tools: taking care of devices, using kind words, following tech rules and telling a trusted grown-up when something seems wrong.

### What it asks at this age

- Name their own tech jobs: care, kindness, rules, getting help.
- Explain why a tech job matters.
- Put tech back when done; ask before taking someone’s photo.

### What it doesn’t ask yet

- Weighing the benefits and harms of tech use (2nd grade, E2-SYS-IM-13).
- Screen-time limits. Those are family and school choices.
- Posting or messaging online on their own.

**Good to know: jobs, not just rules.** When children see responsible use as their own job, they own it. Praise jobs done well, and keep telling a grown-up shame-free.

Standard code © CSTA, [csteachers.org/pk12standards](https://csteachers.org/pk12standards) (CC BY-NC-SA 4.0). The plain-words version and the two lists are our reading of the standard; CSTA’s own clarification is on its site.

## How to teach it

1. **Warm up (3 minutes).** “What jobs do we have in our classroom? Let’s find our tech jobs.”
2. **Read aloud** the box on page 1.
3. **Match each picture.** Children draw lines, then talk with a partner.
4. **My tech job badge.** Children draw themselves and finish the sentences.
5. **Show what you know** is your quick check. Then children color a face.

## Talk prompts

- “Which tech job is most important? Why?”
- “What kind words could you send a friend?”
- “Why do we ask before taking someone’s photo?” It’s their picture, so it’s their choice.

## Support and stretch

**Support:** Act out each job with a cardboard tablet before matching.

**Stretch:** Make a class Tech Jobs chart and take turns with jobs like tablet checker.

## Why it matters for AI

CSTA doesn’t tag this standard as AI-related, but it matters for AI. The same jobs apply to AI tools: use them only with a grown-up’s OK, ask kindly and tell a grown-up if an AI tool says or makes something odd.

## For teachers in England

1st grade matches Year 2. Fits KS1 computing (“use technology safely and respectfully”) and knowing where to go for help and support. Check the exact wording on [gov.uk](https://gov.uk).

# Answer Key

How AI Uses Patterns: Pattern Finders · 1st Grade

Computer science · AI  
Standard E1-ALG-ML-02

## Page 1: Find the pattern, then decide

### COUNT EACH KIND



dinosaur: 4



space: 2



ocean: 1

How many more dinosaur books than space books? 2 ( $4 - 2 = 2$ )

**Talk with a partner:** Yes, it could be wrong. A pattern is a good guess, not a promise.

### BE THE AI



dinosaur book

**A dinosaur book.** It shows up most in Sam's data (4 of 7 books), so the app suggests one.

## Page 2: Make something new

### WHAT DO ALL THREE HOUSES HAVE?



a roof



a door



wheels



windows

**A roof, a door and windows.** None of the houses has wheels.

### MY NEW HOUSE

Any new house with a roof, a door and windows that is not a copy of the examples. Ask: "What did you keep from the pattern? What did you make new?"

## Page 2: Show what you know

### WHAT IS AI?



a tool people make

### WHAT DOES AI USE TO FIND PATTERNS?



lots of examples

### A MUSIC APP PICKED A SONG FOR YOU. WHAT DID IT DO?



AI decides

## Why these answers

AI is a technology people make. It needs lots of examples (data), not magic. Picking a song is choosing, so the AI decided. Making a brand-new song would be making something new.

## How did I do?

Any face is fine. The faces show you who may want another try, perhaps counting real books together first.

# Answer Key

Before and After: Change Spotters · 1st Grade

Computer science · AI  
Standard E1-SOC-HI-14

## Page 1: Taking photos

### B: BEFORE (FILM CAMERA)



keep it in an album



wait days to see it

### A: AFTER (PHONE CAMERA)



see it right away



keep it on a screen

**What stayed the same:** We still take photos of special days. Waiting days for photos changed.

**Ask a grown-up:** answers will vary. Invite children to share one thing that changed.

## Page 2: Checking the weather

- A** 1. Which way can you use any time you want?
- B** 2. Which way uses paper?
- B** 3. Which way came first?
- A** 4. Which way uses AI to understand your words?

**What stayed the same:** any sensible need, such as an umbrella, a coat, boots or sunscreen.

## Page 2: Show what you know

### FINDING THE WAY. WHICH IS THE BEFORE WAY?



a paper map

### TALKING TO FAMILY FAR AWAY. WHAT CAN YOU DO AFTER VIDEO CALLS CAME ALONG?



see faces while you talk

A paper map came before map apps. Video calls let people see faces while they talk; a letter takes days.

### Before doesn't mean gone

If a child says, "My grandma still reads the newspaper!" agree: many people use both ways.

### How did I do?

Any face is fine. The faces show you who may want another try, perhaps comparing one real activity together first.

# Answer Key

People Are Great At... Team Players · 1st Grade

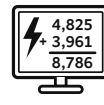
Computer science · AI  
Standard E1-SOC-HU-15

## Page 1: Who is great at it?

### PEOPLE (3)

cheering up a  
sad friendmaking up a  
new gametasting the  
soup

### COMPUTERS (3)

adding big  
numbers fastremembering  
1,000 songsdoing a job 100  
times

People: feelings, senses and ideas together. Computers: speed, memory and doing a job again and again. **Talk with a partner:** answers will vary.

## Page 2: Make a great team!

Any team where each part fits. Example: at a bakery, the computer keeps track of 100 orders and the baker tastes the cake. Ask: “Why is the person great at that part?”

## Page 2: Show what you know

### WHO IS GREAT AT GIVING A HUG?



giving a hug



a person

### WHO IS GREAT AT SORTING 1,000 PHOTOS SUPER FAST?

sorting 1,000  
photos fast

a computer

A hug needs a person. Sorting 1,000 photos fast is a computer job.

## If a child says “a robot can hug!”

Great thinking. Ask whether the robot knows how you feel. Today, caring is a people job.

## How did I do?

Any face is fine. The faces show you who may want another try, perhaps acting out the cards together first.

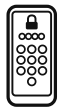
# Answer Key

Keep It Locked: Password Pros · 1st Grade

Computer science · Safety  
Standard E1-SYS-SE-12

## Page 1: Keeps it locked or lets others in?

### KEEPS IT LOCKED (3)

logging out  
when you're  
donelocking the  
screena long  
password  
that's hard to  
guess

### LETS OTHERS IN (3)

telling a friend  
your passwordusing 1234 as a  
passwordwalking away  
still logged in

**Talk with a partner:** 1234 is one of the first passwords people try. Longer passwords made of random words are much harder to guess.

## Page 2: Make a strong pretend password

Any three words from the box joined together, such as **KiteFishSock**. Check: three words, and not a name, a birthday or 1234.

## Page 2: Show what you know

### A POP-UP ASKS FOR YOUR PASSWORD

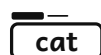


the pop-up

ask a grown-up  
first

**Ask a grown-up first.** Prize pop-ups can be tricks to get passwords.

### WHICH PASSWORD IS HARDER TO GUESS?



cat



GreenFrogPizza

**GreenFrogPizza.** Three random words make a long password that's hard to guess.

## If a child shares a real password

Thank them and remind them gently that passwords are just for them and their grown-ups. Tell the family if a real one was written down.

## How did I do?

Any face is fine. The faces show you who may want another try, perhaps with the toy-padlock game first.

# Answer Key

My Tech Job: Job Squad · 1st Grade

Computer science · Safety  
Standard E1-SYS-IM-13

## Page 1: Match each picture to its job



→ Take care of tech



→ Use kind words



→ Follow the tech rules



→ Tell a grown-up

Talk with a partner: answers will vary.

## Page 2: My tech job badge

Any job with a reason. Example: “My most important tech job is using kind words because words can hurt or help.” Check that the sentence names a job and gives a reason (W.1.1).

## Page 2: Show what you know

### DONE WITH THE CLASS TABLET

put it back  
where it goesleave it on the  
floor

**Put it back where it goes**, so it stays safe and ready for the next person.

### A PHOTO OF YOUR FRIEND



just take it

ask your friend  
first

**Ask your friend first.** It's their picture, so it's their choice.

## Jobs at home

Families can use the badge too. Invite children to take it home and show a grown-up the job they chose.

## How did I do?

Any face is fine. The faces show you who may want another try, perhaps acting out the jobs together first.