



from  CodeHS

Sorting with Charts Activity Plan

Overview

In this activity, students learn how everyday AI products use data to learn and make decisions. In groups, they read about one real-world AI product and weigh its pros and cons from two points of view: the people who use it and the people who create it. Then they redesign the product to be more inclusive or safer.

Recommended Grade Level(s): 1-3

Recommended Age Range: 6-8

Activity Length: 1 hour

Experience Level: Beginner

Technical Requirements

Note: *This is an unplugged activity. Only the teacher needs a device to project the slides. Students work on a printed handout or participate as a whole group and do not need devices.*

- Device Requirements
 - 1 teacher computer connected to a projector or display (Mac, PC, Chromebook)
 - Online connectivity at a minimum of 10Mb/sec
 - Modern browsers on computers
 - Chrome
 - Firefox
 - or Safari Version 15.1 or higher
- Note on Student Accounts:
 - Students do not need an account to complete this activity.

Activity Materials

All resources needed for this activity are included on the lesson page.

Teacher Resources:

- [Teacher Slides](#)
- [Lesson Plan](#)

Student Resources:

- Ways to Sort handout, printed one per student ([English](#) / [Spanish](#))
Optional: students can instead take part as a whole group with thumbs up/down, hand signals, or turn and talk.
- Printable Instructions, for students who need extra support or an extension ([English](#) / [Spanish](#))



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Content Standards

- **CSTA E1-ALG-ML-02:** Recognize that AI uses patterns in data to make decisions.
- **CSTA E1-ALG-IM-03:** Explain how changing an algorithm can change its outcome.
- **CSTA E1-SOC-HU-15:** Tell apart the tasks people do well and the tasks computers do well.
- **CSTA E2-ALG-ML-02:** Examine how data is used to train a machine learning model.
- **CSTA E2-DAT-DI-09:** Develop a question that can be answered with data.

Teacher Instructions

- Before the Hour of AI:
 - Review the teacher resources and lesson plan.
 - Ensure that you have the ability to project the activity slides to your students.
 - Decide how students will participate: as a whole group with hand signals, or with a printed Ways to Sort handout for each student.
 - Print the Printable Instructions for students who need extra support or an extension.
- During the Hour of AI:
 - Review patterns, then sort a set of emojis together using the rule "Animals vs Not Animals."
 - Share that people make AI tools, and that AI tools use patterns in information to make choices and suggestions, like a reading app suggesting a new book.
 - Introduce decision trees with the question "Does it have wings?" Have students predict where a new emoji, the bat, will go.
 - Teach the computer: show that the computer's question put the bat and the plane with the birds. Ask students for a better question, such as "Does it have feathers?", and sort again.
 - Show the same sorting in a chart, with "yes" or "no" for each object.
 - Have students be the computer: write their own yes/no question, sort 10 new emojis with a decision tree, and complete the chart.
 - Close by asking how patterns and a decision tree helped them sort, and what AI helper they would build to help people.
 - For students who need extra support, co-create a rule in a small group or provide a pre-written rule such as "Is it an animal?"
- After the Hour of AI:
 - Students can complete the extension activities: think of a different rule and sort again, or draw their own emojis for a friend to sort.
 - Did you know that CodeHS offers K-12 AI curriculum, PD for teachers, and classroom tools? Go to codehs.com/ai to learn more about how you and your students can continue learning about AI.

Need Help?

Email support@codehs.com to get in touch with our support team!