Learning Activities for Teaching AI in K-5

2020 CSTA Annual Conference
Tuesday, July 14, 2020
10:00-10:45 AM Central Time

bit.ly/csta2020ai4k12-k5

Who Are We & Who's Joining Us Today?

Deborah Seehorn
AI4K12 Steering Committee

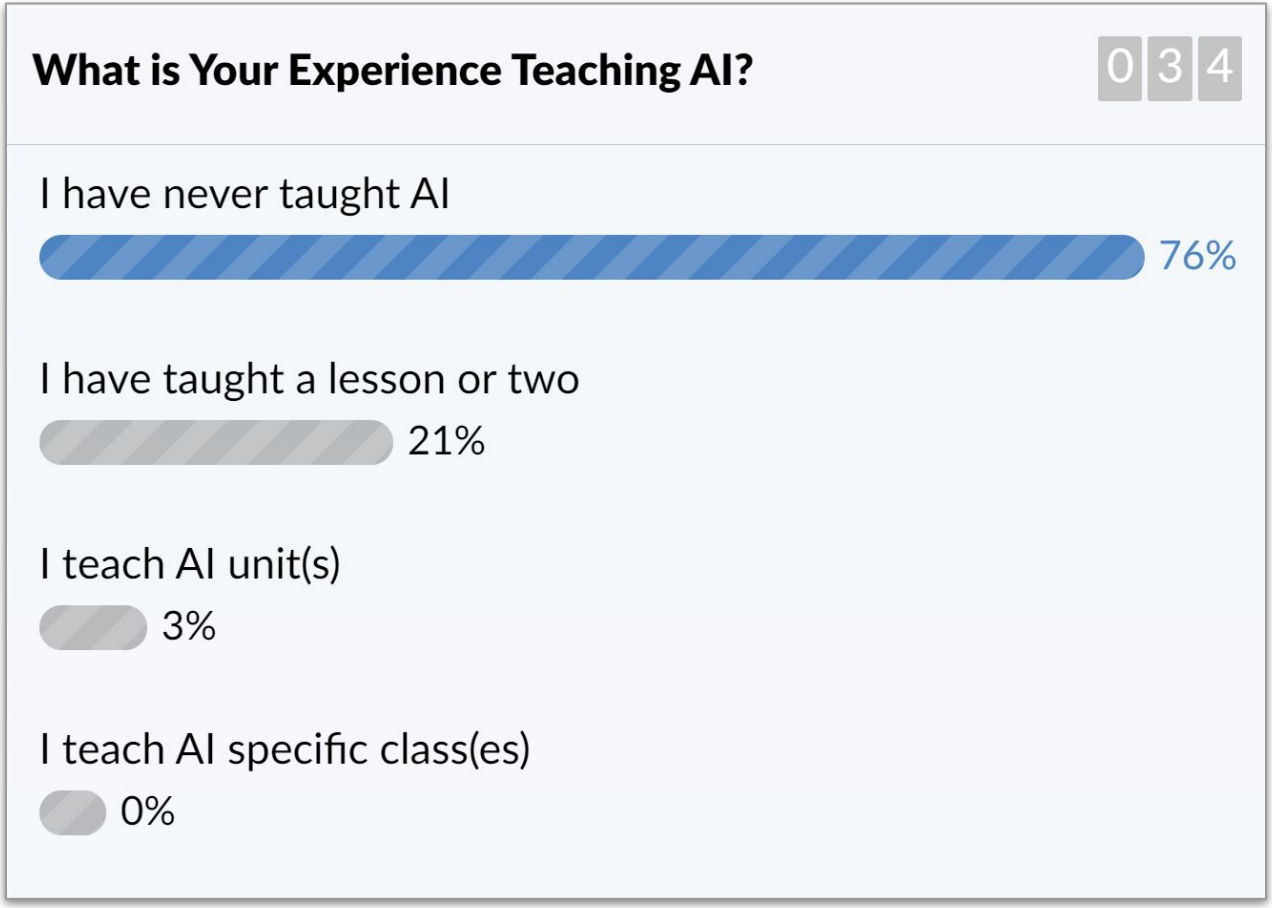
Vicky Sedgwick
K-2 Grade Level Lead

Kelly Powers
3-5 Grade Level Lead

ai4k12.org

Please introduce yourself in the chat:

- Your Name
- Where you are joining us from
- What grade levels do you work with?
- Your Job Role



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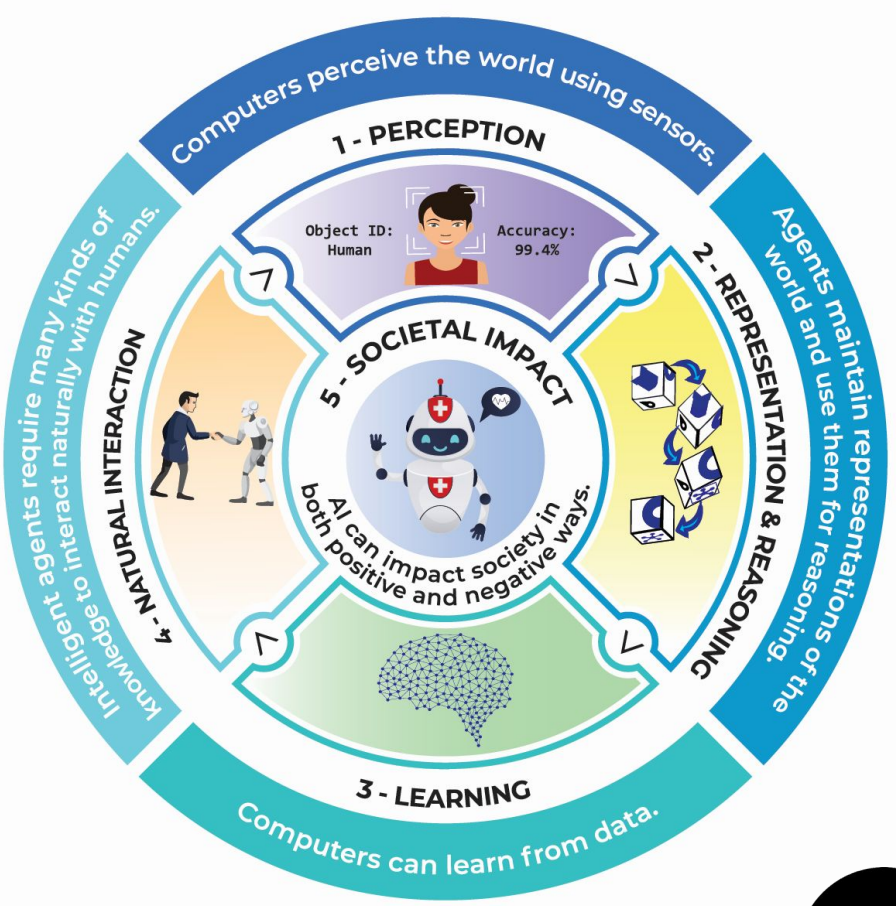
AI4K12.org

Five Big Ideas in AI

Download a free poster explaining the Five Big Ideas from our website:

AI4K12.org



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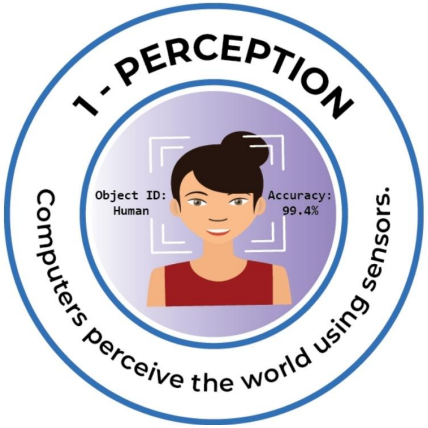

Big Idea #1
Learning Activities

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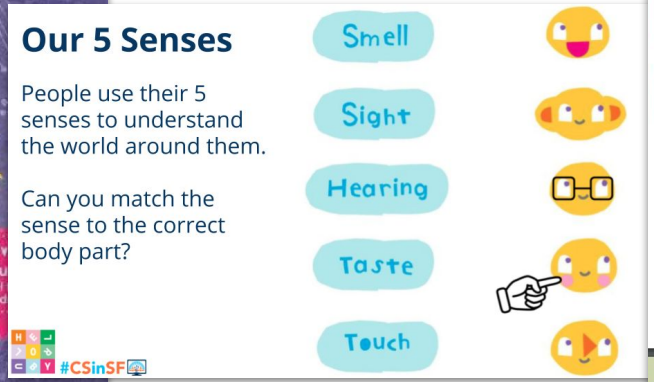
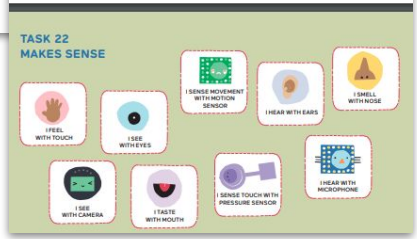
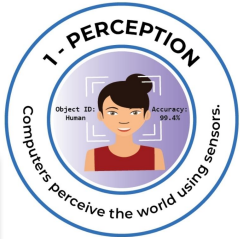
K-2 Big Idea #1 Learning Activity







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K-2 Big Idea #1 Learning Activity

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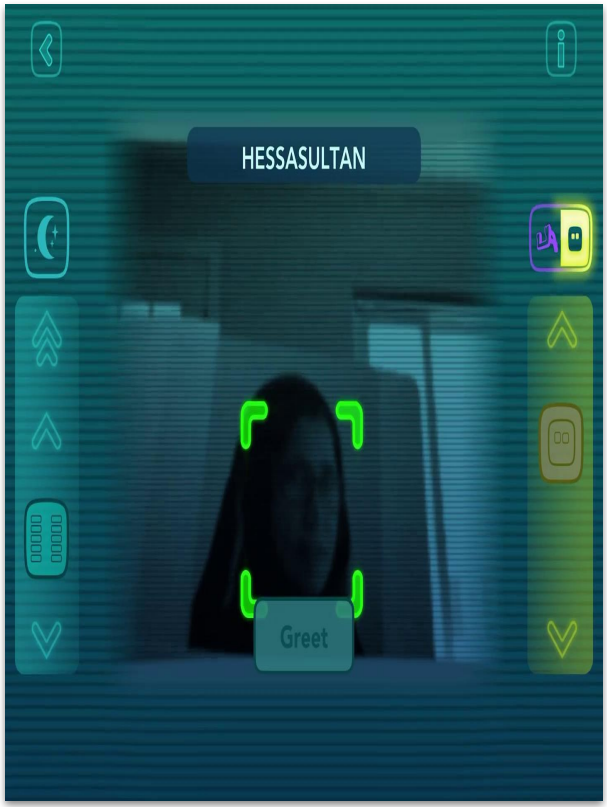
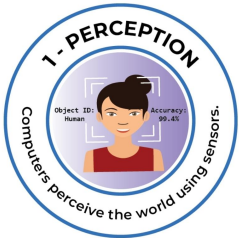
Cozmo & Notable Women in Computing





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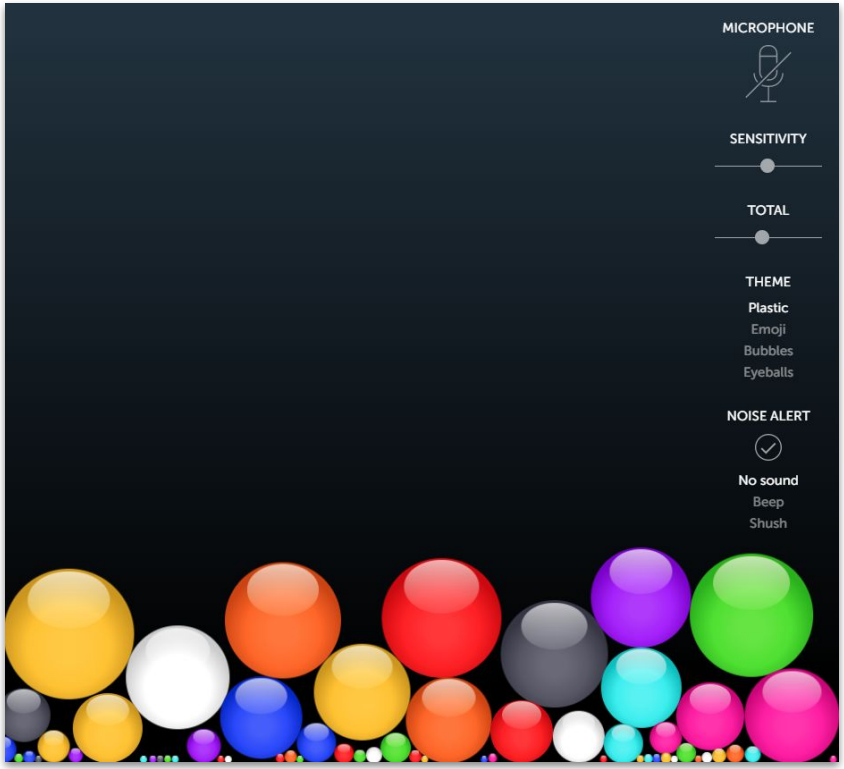
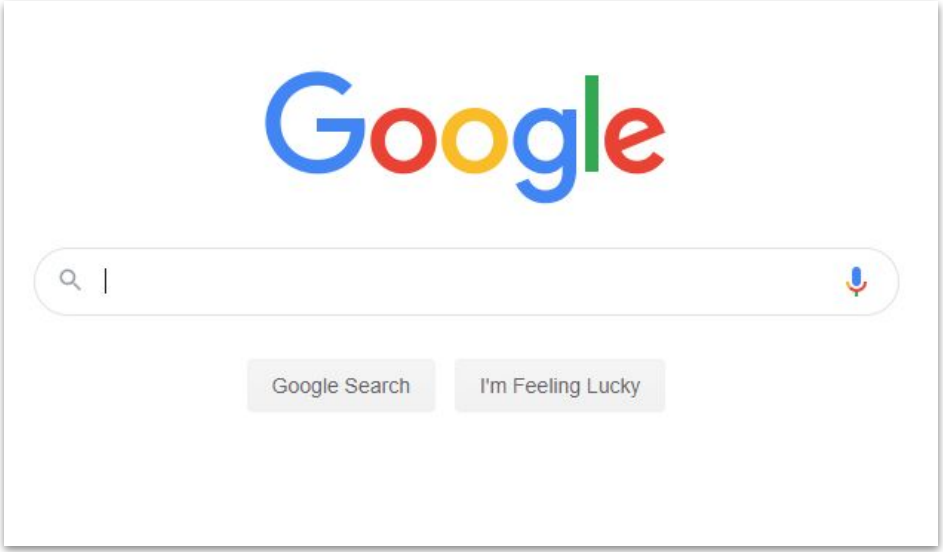
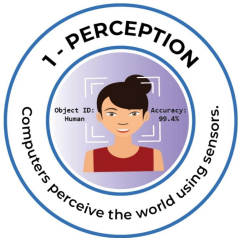
K-2 Big Idea #1 Learning Activity







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Big Idea #3
Learning Activities

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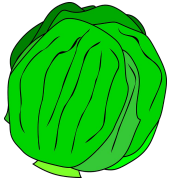
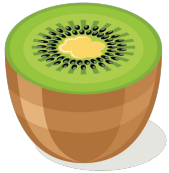
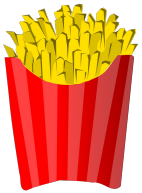
K-2 Big Idea #3 Learning Activity

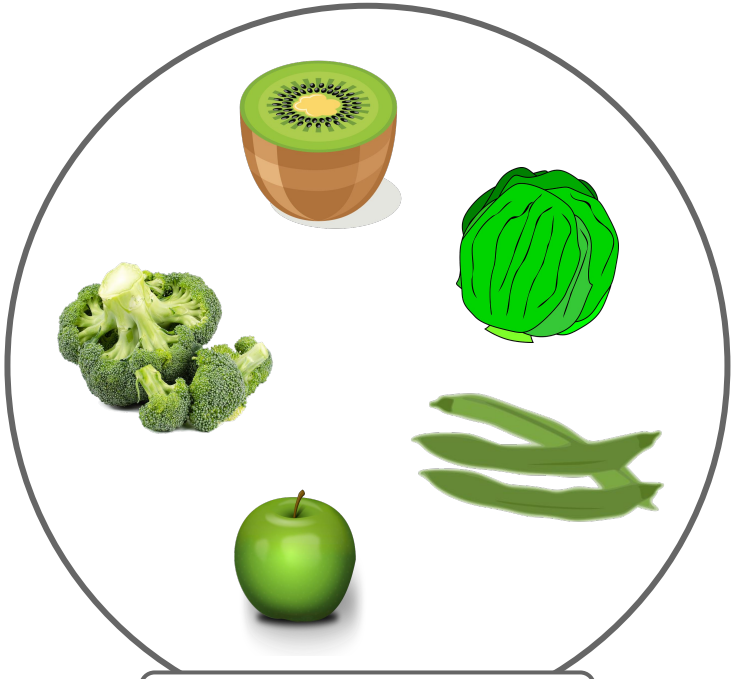






Sort the Food: bit.ly/ai4k12-3-k2food

K-2 Learning Activities for Teaching



Healthy Foods

Unhealthy Foods

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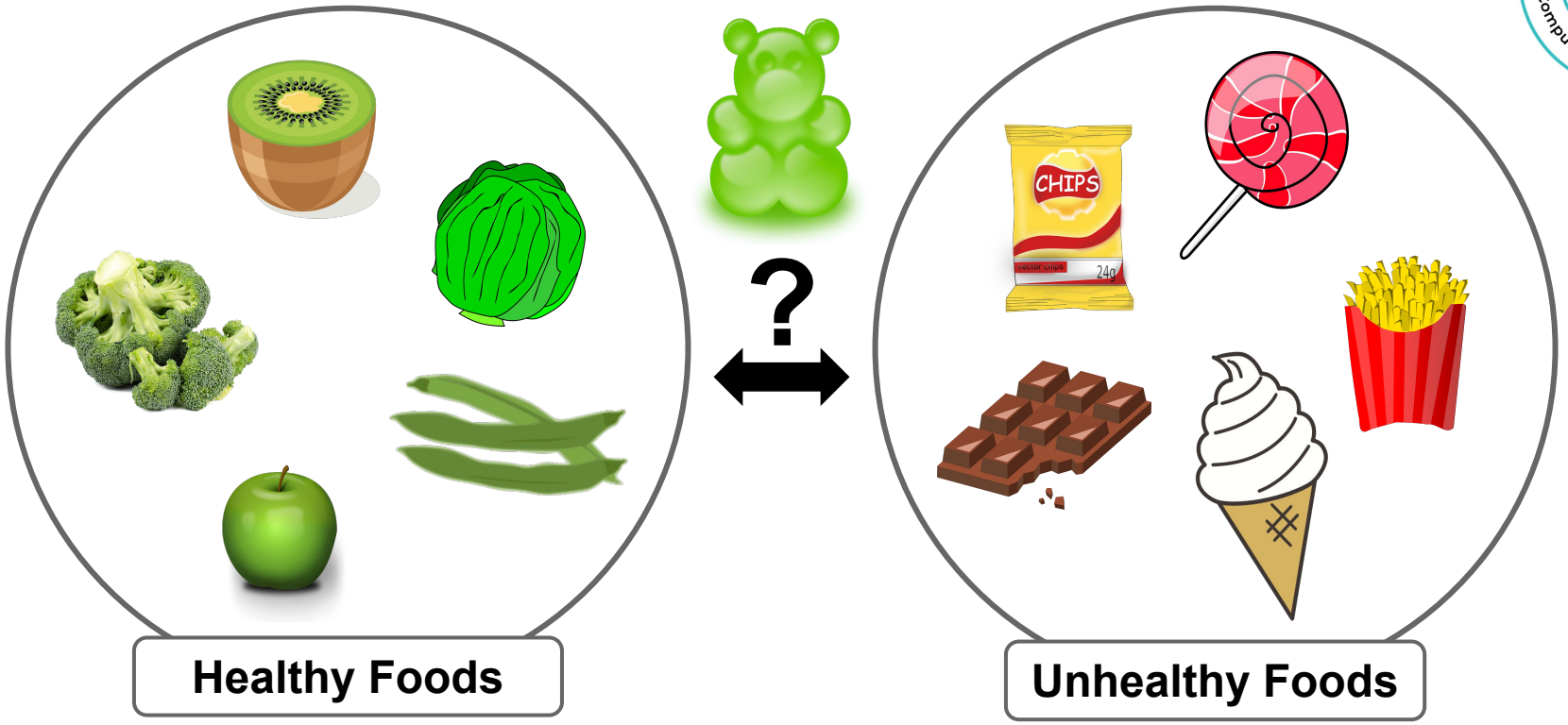
K-2 Learning Activities for Teaching



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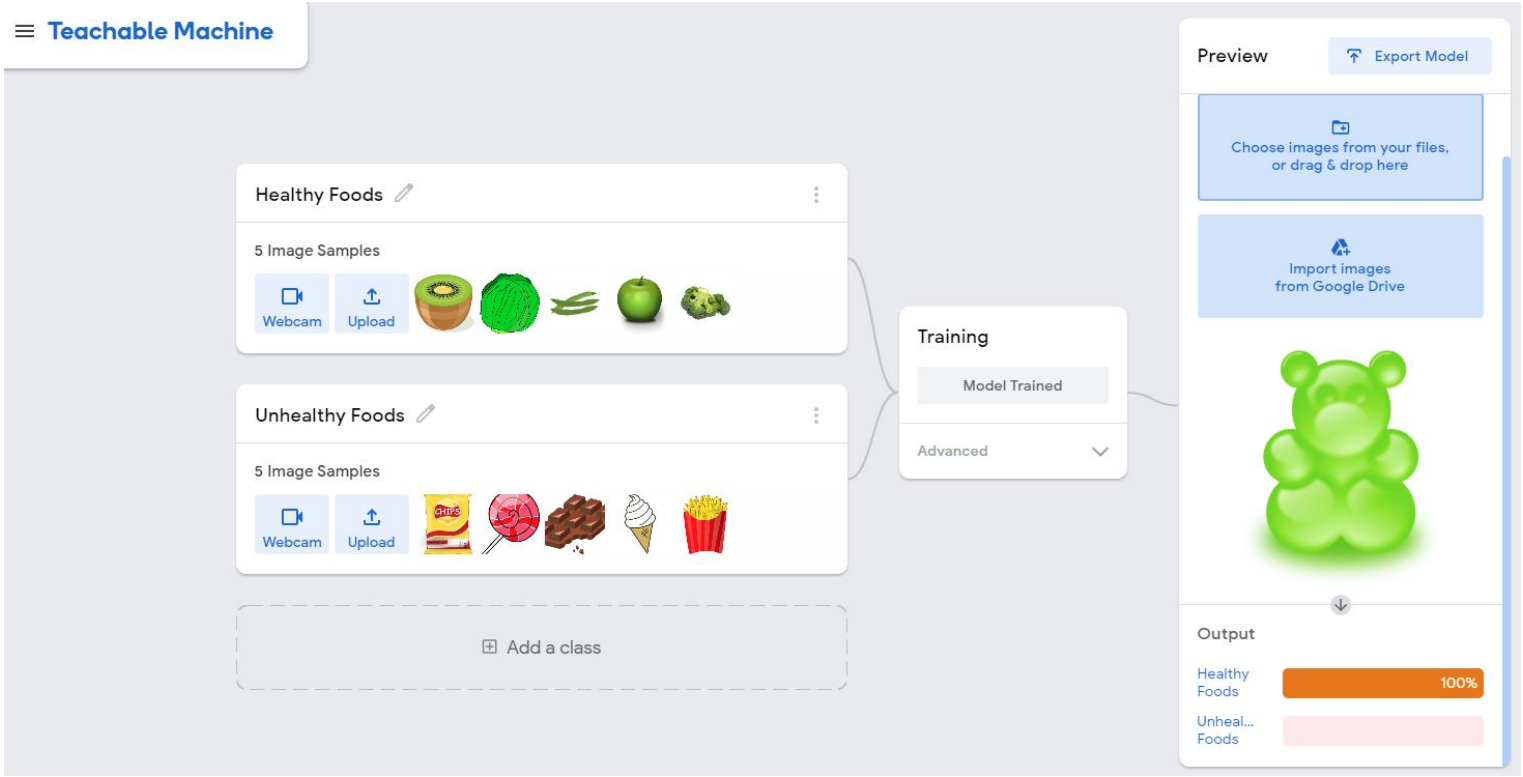
K-2 Learning Activities for Teaching



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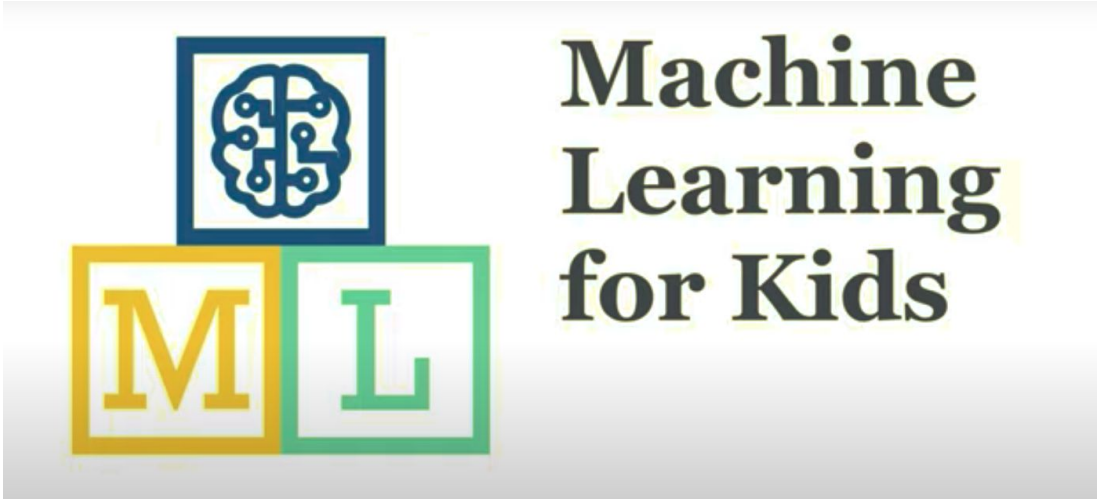
3-5 Learning Activities for Teaching ML

Mood Meter: How do I feel?



Collect examples of text to train a computer

Train a ML Model

Evaluate the model in labeling text

Build a Scratch Project

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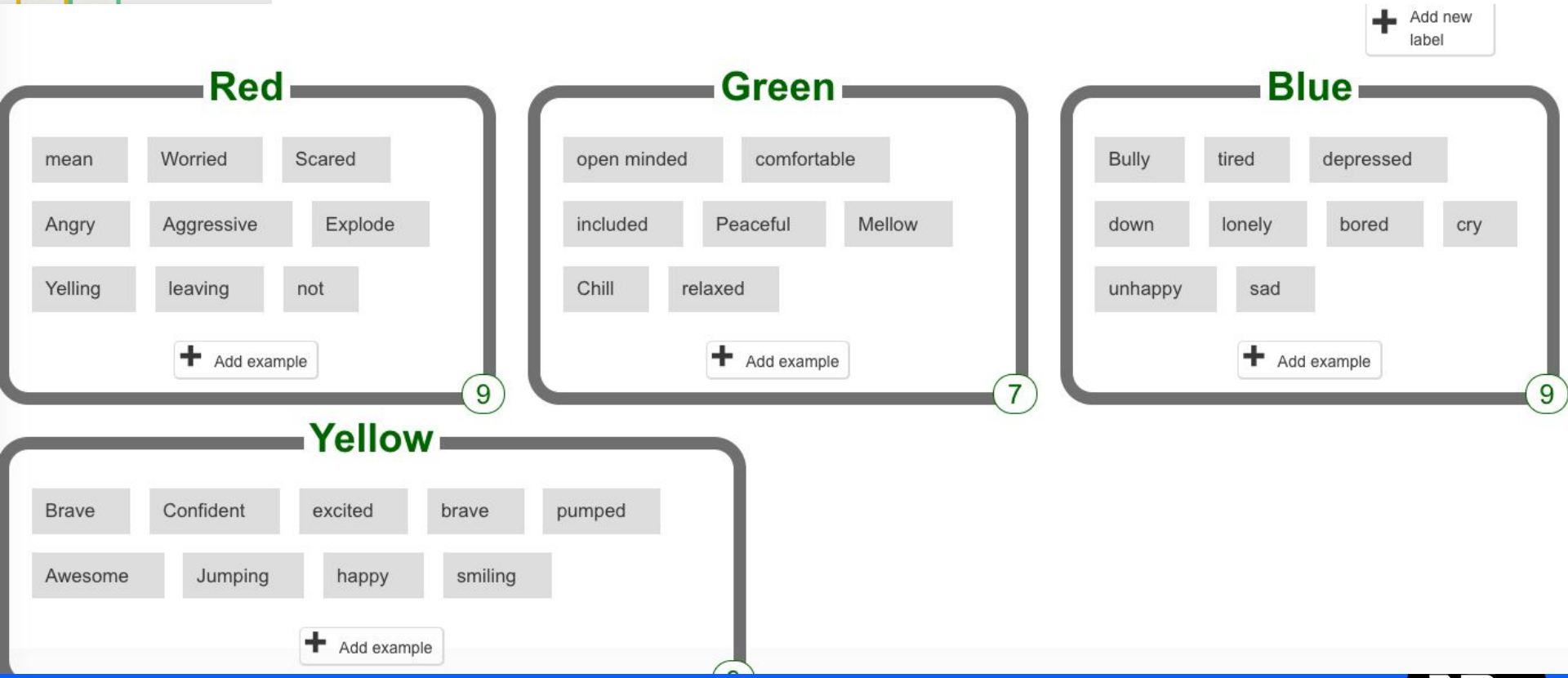
3-5 Learning Activities for Teaching ML



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3-5 Learning Activities for Teaching ML

You have trained a machine learning model to recognise when text is Red, Green or 3 other classes.

You created the model on Monday, June 15, 2020 6:10 PM.

You have collected:

- 9 examples of Red,
- 7 examples of Green,
- 9 examples of Blue,
- 9 examples of Yellow,
- 4 examples of Neutral

Try putting in some text to see how it is recognised based on your training.

I am angry

Recognised as **Red**
with 94% confidence

Test the ML model.

Evaluate it! Retrain?

Satisfied? Create an interactive Scratch project to predict your mood!

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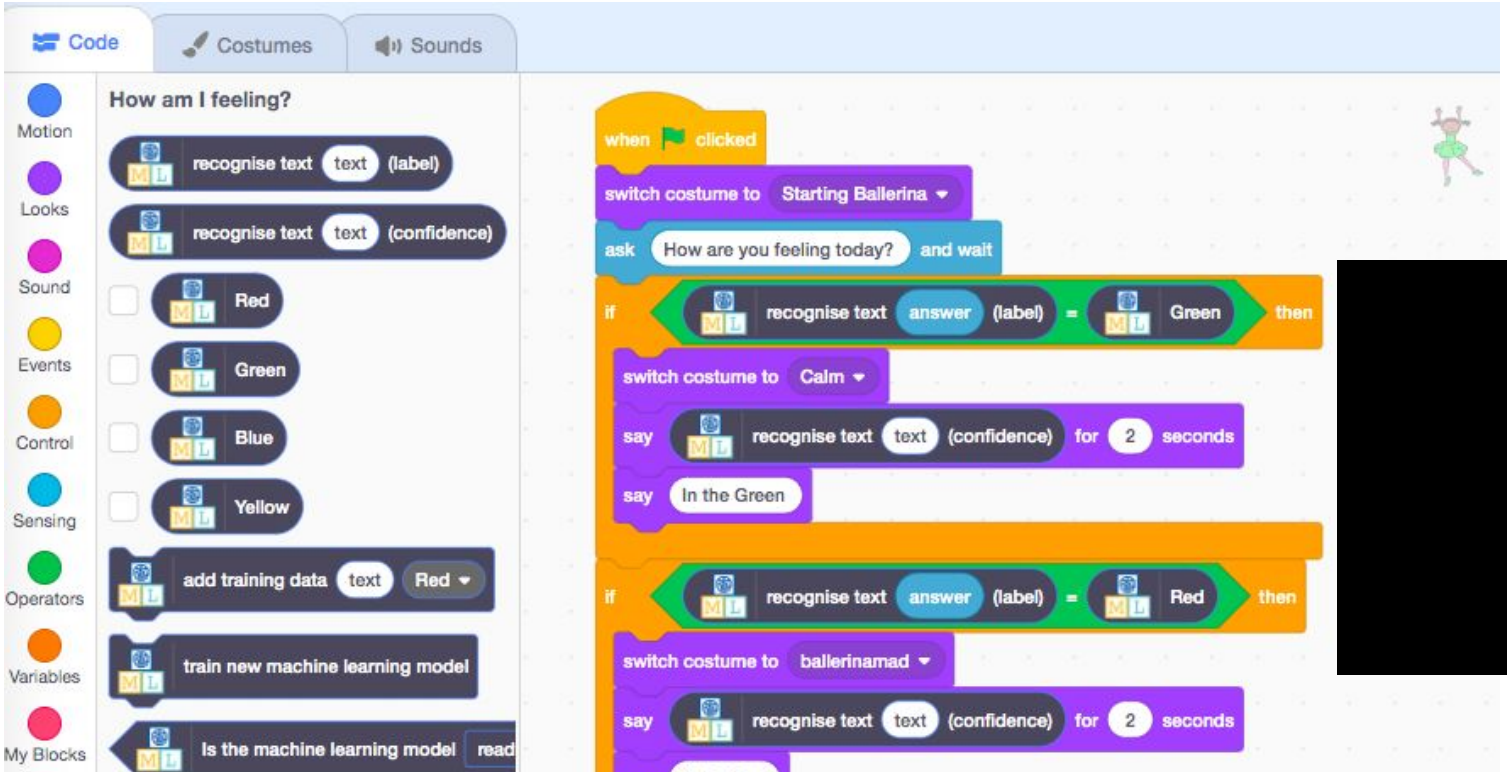
3-5 Learning Activities for Teaching ML



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Big Idea #4
Learning Activities

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3-5 Learning Activities for Teaching

4 - NATURAL INTERACTION

Intelligent agents require many kinds of knowledge to interact naturally with humans.

Body, Movement, Language interacting with AI to create Art Compositions Tell Stories Experiences

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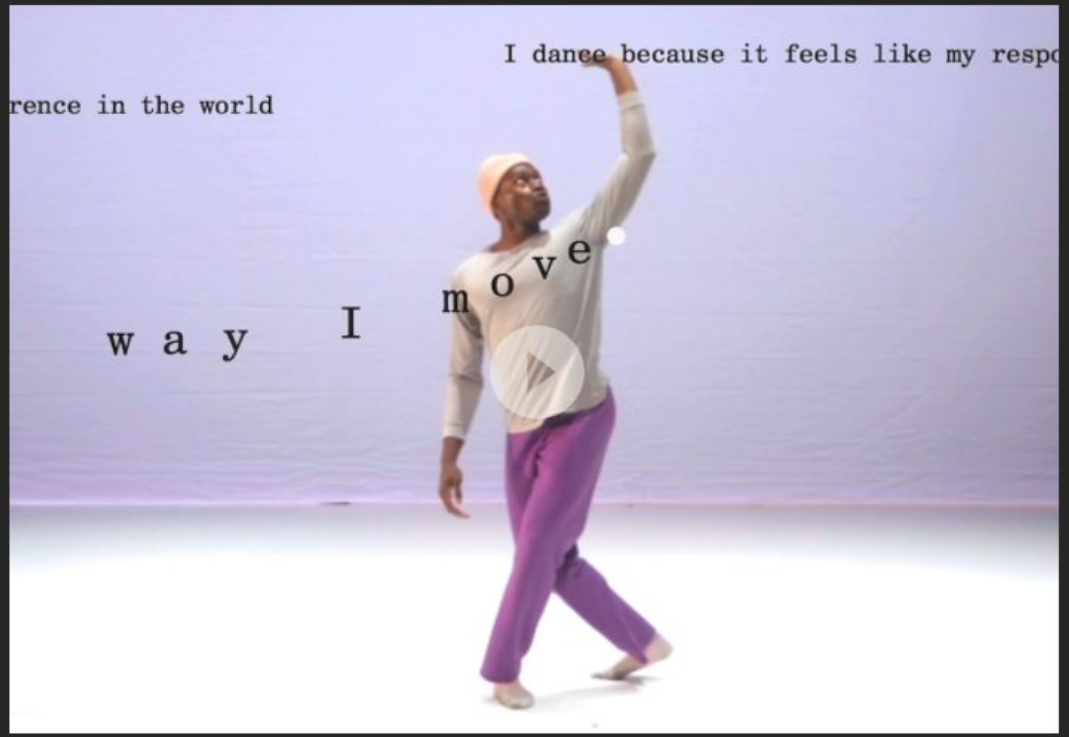
Manifesto



AN INTIMATE MESSAGE COMPOSED IN DIGITAL SPACE

Bill is famous for improvising with speech and movement, often deftly weaving together personal stories, histories of others, and commentaries on culture. This experiment, Manifesto allows the user to create a trail of words that respond to their movements in real time, and suspend them on screen to compose a statement. Bill workshopped this prototype by asking his dancers to use it tell stories about their lives or write a letter to someone. Now, Manifesto invites you to tell your story in a new way.

BEGIN

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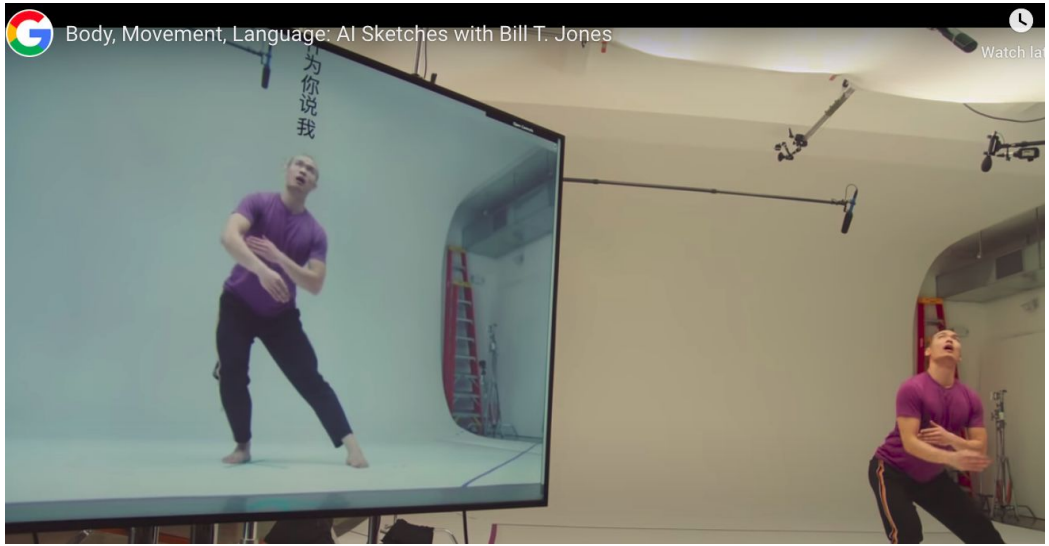
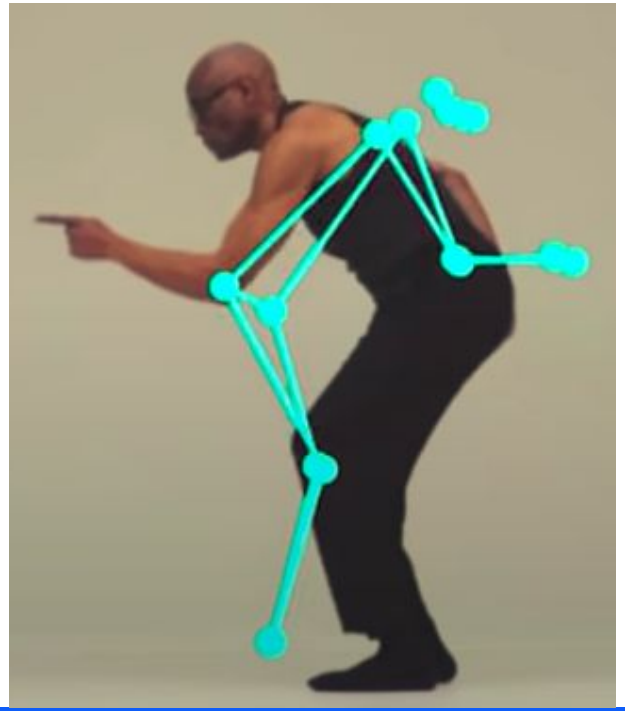
3-5 Learning Activities for Teaching

Experiments with Google





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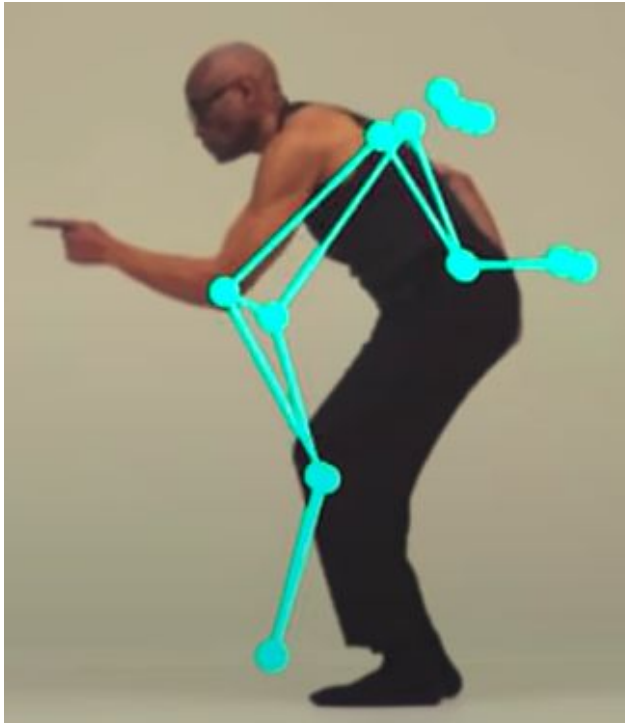
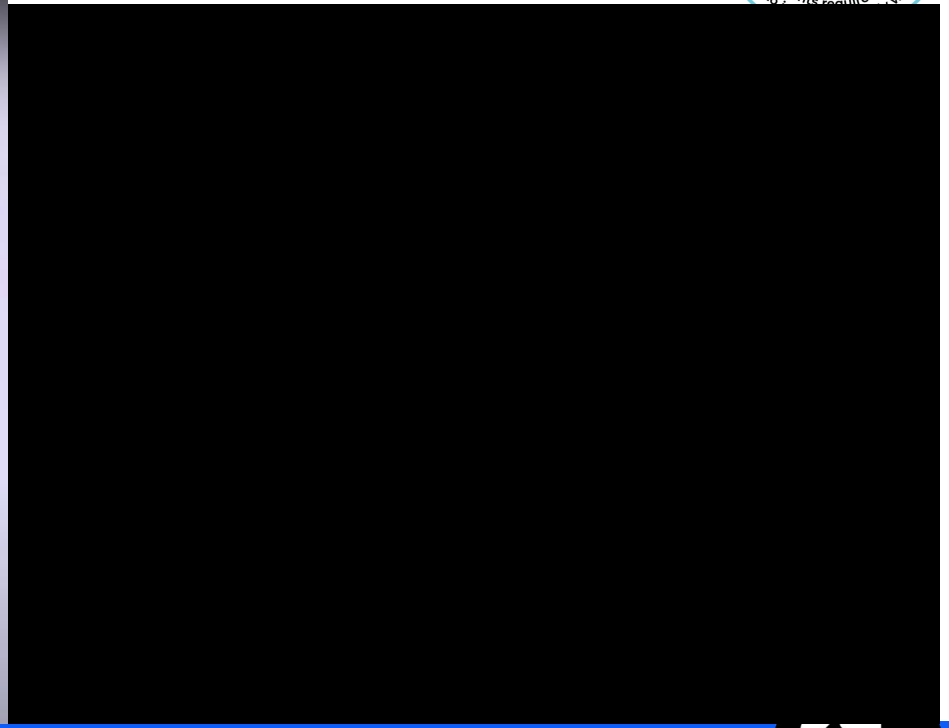
3-5 Learning Activities for Teaching

Dylan Shareable Link



3-5 Learning Activities for Teaching

Analise shareable link



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Anonymous 3

The machine learning Scratch projects are they sharable on the scratch.mit.edu site?

Anonymous 2

Can you share a link to your Seesaw activity?

Anonymous 1

what is the link to Manifesto

Anonymous 0

How much time do you devote to teaching AI?

⬇ Answers in speaker notes ⬇

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Additional K-5 AI Instructional Resources

Find more Learning Activities
for Teaching AI in K-5
on the AI4K12 website: **www.ai4k12.org**

Thank you for your time!