Engaging in Computer Science in Non-Traditional Ways

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Today’s Intentions
Agenda

- Icebreaker activity
- Experiential Learning Model
- Computer Science Breakout Activity
- Breakout Report Back
- Wrap up
How would you rank your computer science skills or comfortability in CS?

1 being the least and 5 being the greatest
Experiential Learning Model

1. **Experience**
   - the activity; perform; do it

2. **Share**
   - the results, reactions, observations

3. **Process**
   - by discussing the experience; analyze, reflect

4. **Generalize**
   - to connect the experience to real-world examples

5. **Apply**
   - what was learned to other situations; practice

What is the Experiential Learning Model?

Consider that we remember:
- 20% of what we read;
- 20% of what we hear;
- 30% of what we see;
- 50% of what we see and hear;
- 70% of what we see, hear, and discuss;
- 90% of what we see, hear, discuss, and practice.
1. Experience the activity; perform; do it
2. Share the results, reactions, observations

- What did you do?
- What did you see?
- What equipment was needed to complete the task?
- What part of the experience was most difficult? Easiest?
3. Process by discussing the experience; analyze, reflect

- How did you ...?
- How is your imitation flashlight different than one you would buy in the store?
- What challenges did you have in ...?
- What affect did the challenge have on your project?
• What did you learn from the experience?

• How does this relate to other things you have been learning?

• What is another time that you experimented to solve a problem?
5. Apply what was learned to other situations; practice

• When faced with a new problem, like doing a cartwheel, describe some ways that you could figure out the answer.

• How can you relate what you learned in this experience to other parts of your life?
CS ACTIVITIES

• 20 minutes with a host
• Identify a computer science activity
• Prepare to report back 4-5 sentences that describes the activity.
• Turn camera’s on, unmute yourself—ENGAGE!
Turn camera on, unmute yourself—ENGAGE!
Ozobots
Virtual Reality
4-H STEM Challenge, formerly known as 4-H National Youth Science Day (4-H NYSD)
Colurs by Numbers
Scratch
4-H Discover Code
WRAP UP
Evaluation

https://missouri.qualtrics.com/jfe/form/SV_dhzplcwDbqdN2LP
Any questions?
Resources


4-H STEM CHALLENGES- https://4-h.org/parents/4-h-stem-challenge/#!past-challenges

Virtual Reality-- https://edu.google.com/products/vr-ar/expeditions/?modal_active=none

Ozobots-- https://ozobot.com/

Scratch--- https://scratch.mit.edu/

Discover 4-H Code- https://utah4h.org/discover/

Additional resources- https://curriculum.code.org/csf-19/coursed/3/
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