

WORKSHEET
Science on Saturday

The Evolution of Computing Technologies: From Following Instructions to Learning

Video Links:

[The Evolution of Computing Technologies: From Following Instructions to Learning](#)

Presenters:

Katie Lewis – LLNL Scientist

Rodger Johnson – Science Teacher – Monte Vista High School

Student Lecture Notes:

1. What is a super computer?

2. What are two advantages of using simulations/computer models with experiments?

3. What are the challenges of increasing resolution for computer models? What are the challenges in increasing to 3-D?

4. What is machine learning?

5. How is if/then coding like a “choose your own adventure” story?

6. How do artificial neural networks solve problems (differently from if/then coding)?

7. Thinking about dribbling a basketball, do people learn the skill by learning the equations? If not, how do people learn to dribble?

8. How much power will Sierra Use? How much power does True North use?

9. What are two advantages of models that learn?