

Unit 0: Coding Unplugged

Activity 2: PB&J Algorithm

Intro and Discussion Points:

Computer Scientists use specific language, just like any industry. It's important for students to be able to use correct terminology, but also relate it to things they already know. Computers are not intelligent! They can only follow instructions literally, step-by-step, in order.

Preparation and Materials:

- Loaf of bread (may need 1 to 1.5 per class)
- Peanut Butter (Have a backup in case of allergies - plain butter works!)
- Jelly
- Paper towels, baby wipes, etc. to clean up.

Timeframe:

1 class period

Student Learning Targets:

- I can write step-by-step instructions.
- I can describe what an algorithm is.
- I can relate an algorithm to a recipe.

Project Goals:

- Understand and use the term algorithm.
- Understand that a computer is not "intelligent" and will only do EXACTLY what you tell it to do.
- Write repeatable instructions that another user can understand and execute.

Lesson Sequence:

- Students write out step-by-step instructions, and may include diagrams if necessary.
- Teacher executes instructions EXACTLY. (The more literal, the better.)
- Give students instructions back to revise (debug).
- Show [Literal Instructions Challenge](#) video
- Review the technical terms algorithm and debug.