**APCSP Activity 1.1.3 Conclusion Questions**

Learning Target: Define the problem and analyze research to create a solution to a problem.

**Link to Your Scratch Remix Project:**

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| https://scratch.mit.edu/projects/173766665/ |

**Partner(s):**

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| Keaten Deets |

**Conclusion Questions**

1. Why is it a good idea to write programs in small pieces and check how well they work after each piece is written?

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| So you don’t write a thousand lines of code before you figure out that everything doesn’t work |

2. Professional programmers usually have to write a piece of a program several times before they get it right. Think of other tasks in life that require you to figure things out. How is programming similar or different?

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| Programming is just trial and error so you try something and if it doesn’t work you try something else. Lots of things you do in everyday life works the same way. |

3. Reflect on how well you worked together when pair programming. What could you do next time to make a partnership function even better?

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| It would’ve been much better if we explained what each snippet of code does instead of just telling the person that we need to do that without any reasoning behind it. |

4. The introduction to this activity said, “Even the most complicated software or cell phone app is made out of very simple steps that happen one at a time.” That is not quite true. Each central processing unit core (CPU core) can process one instruction at a time. A quad-core computer processes four instructions at once. But any computer can run more programs “at once” than the number of processor cores it has. How do you think a dual-core computer, for instance, can make it look and feel like it is running ten or more programs at once?

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| Each core in the CPU which in this case would be 2, would process each instruction extremely fast. A CPU is usually labeled with a specific clock speed such as 2.7GHz. 1Hz(hertz) means 1 cycle per second so 1Hz would mean 1 instruction processed per second. 1GHz is 1 billion hertz so a 2.7GHz processor can process 2.7 billion processor instructions per second which can process everything incredibly fast which makes it seems like it’s running several programs at the same time. |