## Title: Mini Code-Athon

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| Context of the Activity | | | | | | | |
| **The Big Idea**: Practice coding in Scratch, and brainstorm activities that connect coding to core subjects. | | | | | | | |
| Prerequisite Knowledge and Skills:   * Has a Scratch account | | | | | | Connections to SOLs:   * K - 5 Computer Science Algorithms and Programming Strand | |
| Materials | | | | | | | |
| * Markers * Poster paper * Copies - Tools of Programming ( [LINK](https://docs.google.com/spreadsheets/d/1rCDfrYFI_xdKXQNwNbNuew9dzyyvt2jAeREsYDTxz0E/edit#gid=0) ) * Cards - Core Subject Cards ( [LINK](https://docs.google.com/spreadsheets/d/1OHcvaFyvJO38lN4Lfk2TvMZ27PkADvLqm_hLgNWTeXQ/edit#gid=1508216017) ) * Laptops * Scratch starter file * Google doc shared with group | | | | |  | | |
| Lesson Structure and Activities | | | | | | | |
| **Warm Up *[7 min]*** :**Review tools of Programming**   * *2 min* Ask participants to brainstorm blocks they know in Scratch - put 1 per post it note * Ask tables to sort - blocks that DO something and blocks that change appearance * Whip around share out - blocks that DO something - write on board * Start the ones that are the core Tools of Programming (and pass our copy of the list)   + These are the commands that *transfer* to other languages | | | | | | | |
| **Launch (Engage) *[5-10min]* Practice in Scratch**   * Try it - Pick one of the the programs linked below   + <https://scratch.mit.edu/projects/157085548/#player>   + <https://scratch.mit.edu/projects/155762245/#player>   + <https://scratch.mit.edu/projects/156821087/> * With your elbow partner - What Tools of Programming do you see? What do they do? * Discuss whole group - How do we move from students creating a “Sprite Parade” towards an understanding of what the Tools of Programming do, and when to use them * **Model**: Aware Of → Uses → Mastery | | | | | | | |
| **Explore *[25min]* Design a Lesson**   * *7 min* Pair up and practice   + Each group gets one grade level’s Tools of Programming   + Practice – Try a few practice problems for your tool * *18 min* Design a lesson   + Let each group pick a **Core Subject Card**   + Brainstorm and design an activity in Scratch that incorporates the group’s **Tool** and **Core Subject**   + Goal – student program that covers the tool of programming and integrates it into the Core Subject card assigned   + If possible – pitch idea to facilitators to get feedback   + Create a poster summarizing your activity | | | | | | | |
| **Summarize *[15min]***   * Present ideas – 2 min each * **Exit Ticket:** Give time to type into a common google doc to share | | | | | | | |
| **Extensions:** |  | | | | | | |