Coding Camp 0 Agenda

Meeting Times: June 20 and 21

9:00 am - 12 pm
12:00 pm - 1:00 pm Lunch
1:00 pm - 3 pm

Instructors

Christine (Chris) DiMenna	Maryland	Christine.dimenna@gmail.com
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Tuesday, July 20, 2023

9:00 am Introductions
Opening Discussion, Sign-in
Registration Form for Stipends
STEP UP Norms
Welcome to Coding!
Why Coding Matters
Google Colab

9:45 Intro to Coding
Breaks as needed

10:30 Break

10:40 Intro to Loops
Loops & Logic

11:50 All Hands
Regroup and discuss the morning

Break for lunch

1:00 pm Reconvene
Discuss the morning session
What went well, what didn't?
Anything you need to review?

1:10 Keep exploring!
Dice Rolling
Breaks as needed

Quarknet Data Portfolio

2:45 All Hands

Wednesday

9:00 am Morning Discussion

9:15 Position-Time Graphs: Modeling with Equations (Part 1)

9:40 Break

10:00 Position-Time Graphs: Using a Data File (Part 2A)
Muon Mass- If time/ Small Groups

11:35 All Hands
Recap
Break for Lunch

1:00 pm Discussion

1:10 Teacher Hat!
Pair Programming
Best practices
What if I can't use colab?
Explore other notebooks at the end of this document!
Implementation Plans

2:30 End of Program discussion
Short Share Out
End of Workshop reflection/ survey
QuarkNet Survey

Done Early? Check out these resources

Earthquake
H-R Diagram
Mass on a Spring
Bigfoot Sightings
Quick Review / Cheat Sheet
Surface area
Coding in k-12: https://adamlamee.github.io/CODINGinK12/
QuarkNet's Github: https://github.com/QuarkNet-HEP/coding-camp

Interested in Learning More?

Coding Camps this summer - week long coding activities
https://quarknet.org/content/coding-camp-2023

In addition to Google Colab, there are other available platforms:

- Deepnote - must be over 16, free accounts for teachers and students, great for collaborative coding projects
- Jupyter Notebooks - The Lite Version is free
- Replit
- Kaggle

Helpful Functions

```
range (min(array input), max(array input))
plt.rcParams["figure.figsize"] = [7.50, 3.50]   #changes the size of your graph
plt.rcParams["figure.autolayout"] = True
```