

LET'S CODE: UNPLUGGED!

A COMPUTER SCIENCE ACTIVITY DESIGNED TO SUPPLEMENT "DEAR MR. DICKENS" BY NANCY CHURNIN

Anyone can code! Whether you use these coding activities for an Hour of Code event or an unplugged project at the start of a Computer Science unit, students of all ages can feel confident in their abilities to write an algorithm and tackle the foundational skills of coding.

Consider these teaching points when planning your lesson:

- Start by defining an algorithm and asking students to talk through the step-by-step process of something they do everyday (i.e., brushing their teeth or washing their hands).
- Have students practice "coding the teacher" by writing an algorithm to have the teacher go from one place in the classroom to another (if students are not specific with "turn left/turn right/go straight/etc., the teacher may bump into an obstacle).
- Present students with the pre-made activity sheets in this bundle. They can start by tracing a path from one point to another with their finger. Then, have them cut out the directional cards and while collaborating with a buddy, place them in the box provided on each worksheet to "plan" their algorithm. Students can then be encouraged to write the sequence of directional arrows in the planning box in place of the cut out cards.
- Offer students the challenge of creating their own unplugged activity for a partner using the blank work mat and images provided.

Name: _____

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In "Dear Mr. Dickens," we learn that Eliza Davis first wrote to Charles Dickens after she read of his portrayal of the Jewish character, Fagin, in "Oliver Twist."

Write an algorithm that will go from Eliza Davis reading "Oliver Twist" to her writing a letter to Charles Dickens and then to her mailing the letter. Do not stop on any squares with words on them.

	<i>Dear Mr. Dickens</i>		
	<i>Dear Mr. Dickens</i>		
		<i>Dear Mr. Dickens</i>	
			

Artwork by Bethany Stancliffe


Use this box to plan and write your algorithm:

Name: _____

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In "Dear Mr. Dickens," we learn that Eliza Davis wrote several letters to Charles Dickens about his Jewish character in "Oliver Twist." After going back and forth with Davis several times, Dickens published chapters of a novel "Our Mutual Friend" with a new Jewish character, Mr. Riah. Different from Fagin, Mr. Riah was a generous and loyal man.

Write an algorithm that goes from Eliza Davis mailing Dickens a letter to her buying a copy of "Our Mutual Friend" and then to the image of Mr. Riah in the book. Do not stop on any images of Davis writing her letters.

Artwork by Bethany Stancliffe

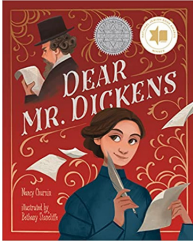
Use this box to plan and write your algorithm:

Name: _____

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In "Dear Mr. Dickens," we learn that after communicating with Eliza Davis several times, Charles Dickens had his publishers change the name of the Jewish character in "Oliver Twist" from "the Jew" to Fagin in many places throughout the reprinted version of the story.

Write an algorithm that goes from Eliza Davis thanking Charles Dickens for writing a book with a kind Jewish character to Dickens working with his publisher to change the wording in reprinted copies of "Oliver Twist." Do not stop on any squares with images of the "Dear Mr. Dickens" book cover.

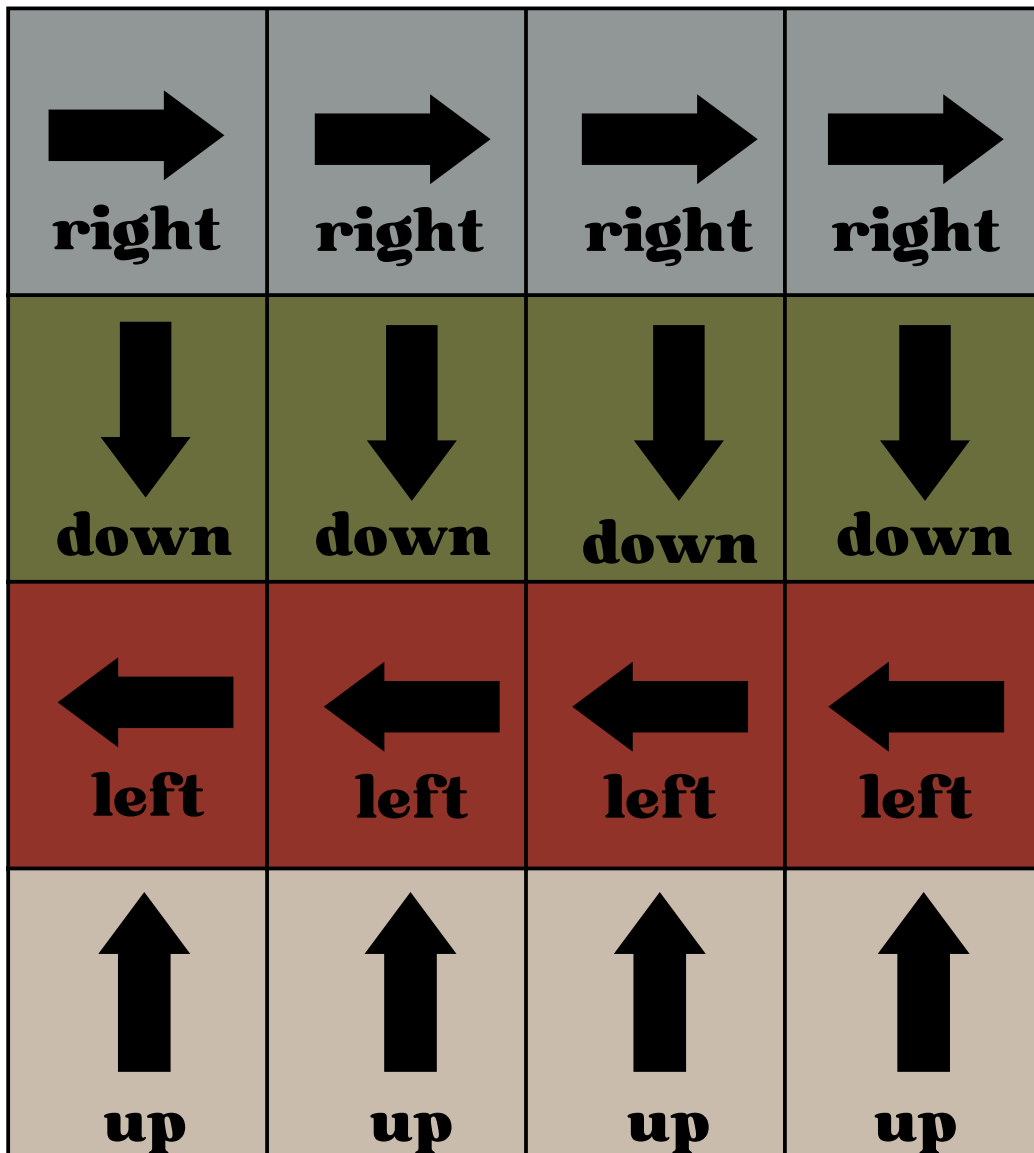
			
			
			

Artwork by Bethany Stancliffe

Use this box to plan and write your algorithm:

DIRECTIONAL CARDS

Cut out the directional cards and then use the space on your worksheet or on a blank piece of paper to plan your algorithm.



Algorithm

The step-by-step instructions you follow in order to do something.

DESIGN YOUR OWN!

Cut out the image cards below and then use a blank work mat to create a challenge for a partner! Choose two images and place them in separate boxes on the mat. See if your partner can write an algorithm to go from one image to the other.



EXTEND THE CHALLENGE: PLACE AN EXTRA TWO OR THREE IMAGES ON THE MAT AS OBSTACLES FOR YOUR PARTNER TO WORK AROUND (BUT BE SURE TO LEAVE A CLEAR PATH TO THE ENDING IMAGE).

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Choose two images and place them in separate boxes on this mat. See if your partner can write an algorithm to go from one image to the other. Extend the challenge by placing an extra two or three images on the mat as obstacles for your partner to work around (but be sure to leave a clear path to the ending image).

Use this box to plan and write your algorithm: