

# LET'S CODE: UNPLUGGED!

**A COMPUTER SCIENCE ACTIVITY DESIGNED TO SUPPLEMENT "FINLEY: A MOOSE ON THE CABOOSE" BY CANDACE SPIZZIRRI**

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 one of 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 should 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 "Finley: A Moose on the Caboose," Finley dreams of riding on a train. He makes several attempts to get on board the train at Talkeetna station but Conductor Jones tells him there are "No wild animals allowed."

Write an algorithm that will go from the image of Finley following his dreams and running towards the train to the image of the empty train caboose. Do not stop on any squares with Conductor Jones on them.







Use this box to plan and write your algorithm:

Name: \_\_\_\_\_

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In "Finley: A Moose on the Caboose," Finley makes several attempts to disguise himself so that he can ride on the train, but Conductor Jones always seems to find him.

Write an algorithm that will go from the image of Finley dressed as a penguin to the image of Finley sadly walking away from the caboose and disappearing into the woods. Do not stop on any squares that have images of the train rules.

Use this box to plan and write your algorithm:

Name: \_\_\_\_\_

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In "Finley: A Moose on the Caboose," the train comes to a stop because a tree fell on the tracks. It is only when Finley comes to the rescue and pushes the tree off the tracks that the train can start moving again.

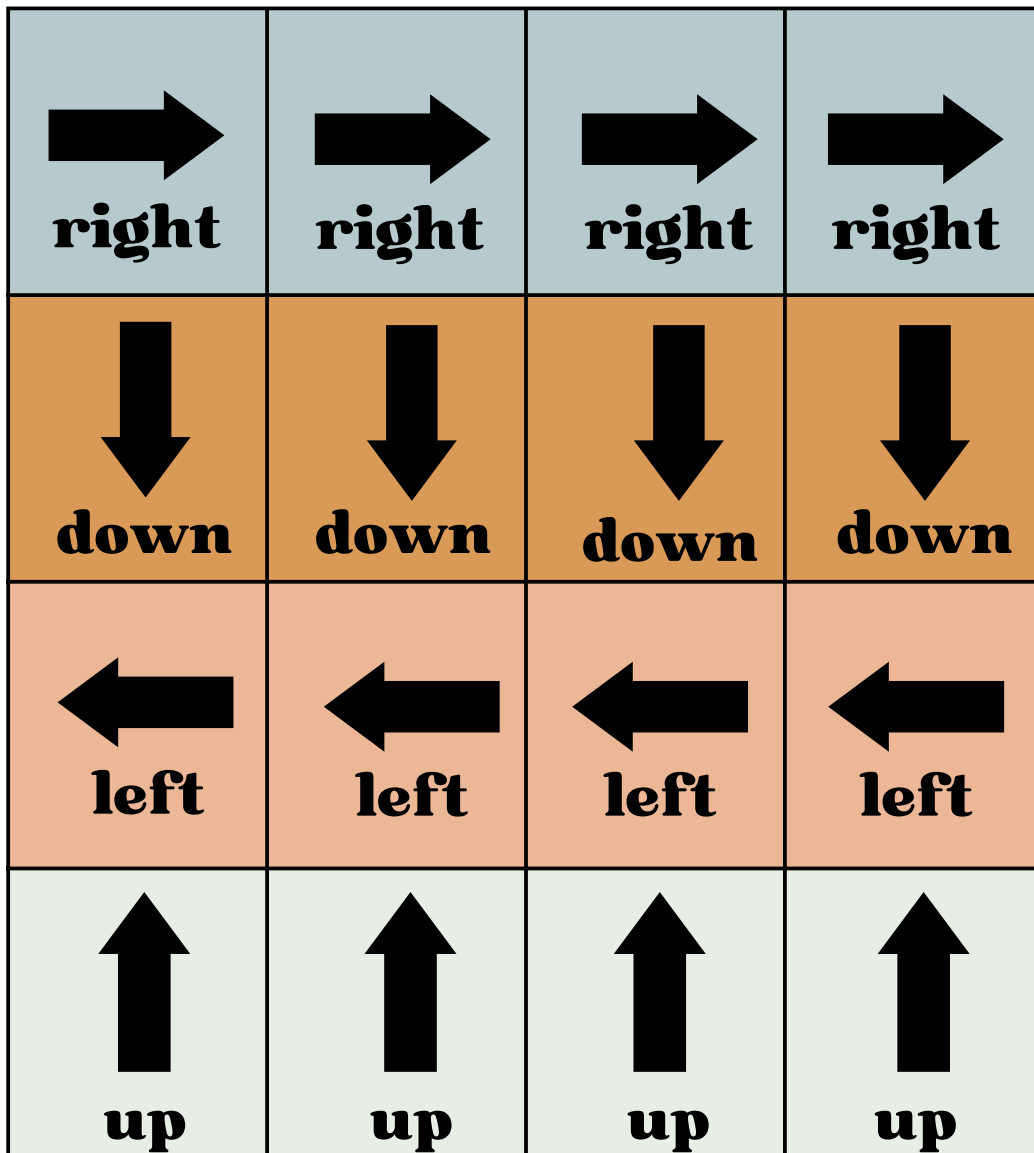
Write an algorithm that goes from the image of the train stopping to the image of Finley pushing the tree off the tracks. Do not stop on any images of the concerned passengers.

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).**

Name: \_\_\_\_\_

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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: