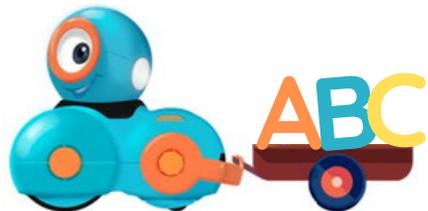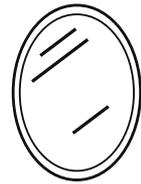# The ABCs & The 123s Activities

Here are some extra activities and lesson starters to take your ABCs and 123s a step further

- Have your students program Dash to write one of the week's spelling words. You could also make it into a game, by first programming a word and letting your students guess the word as it is being drawn out. The first person to guess it wins. If someone recognizes that the word is misspelled, super congratulations!

- Have your students program Dash to draw out the word, "HI" without serifs. Explain that Dash writes "HI" in the direction that we read, from left to right.

  Part 1: Have your students edit the code so that Dash writes a mirror version from right to left: IH

  Part 2: The letters H and I look the same on paper as they do in a mirror because they have reflection symmetry. What other letters have this property? (A, H, I, M, O, T, U, V, W, X and Y). Can you write a sentence only using these letters?

The ABCs & The 123s Activities

Here are some more fun and engaging ways to keep young programmers' minds turning

- Dash is going to write a word. Write down as many rhyming words as you can think of.

- Dash is going to write a phrase. Use that to begin a poem, limerick, etc.

- Dash is going to write a series of numbers. Which <u>functions</u> would Dash need to use if he wrote each number as a Roman Numeral? Which <u>functions</u> would Dash need to use if he wrote each number as binary?

- Dash draws letters for a game of BINGO.

- Dash just drew 12345. How would you edit the code to add more space between each number? How would you edit the code so that the numbers touch? How would you edit the code to change the number to 12,345? How would you edit the code to change the number to $12,345?

The ABCs & The 123s Activities

Now try some of these activities to bring out the inner designer in your little programmers

- Pick 1 number and recode it to give it stand-out style.

- Code Dash to draw a letter twice — the first time in color and the second time in black and offset so that it has a shadow.

- Dash just wrote "DASH" horizontally. How could you edit the code so that he writes his name vertically?

- Look at the code for the letter A. Suppose you needed to make the letter twice as big. Do you double all of the lines? Do you double all of the angles?

- In addition to Dash's marker, secure a 2nd marker somewhere on Dash's body so that it draws at the same time. HaveDash draw an A. Compare the two A's. Which one is more accurate? Why?

- Try another location that you think might work better. Now try a letter with curves (B, C, D, G . . .). Does the 2nd marker work better, worse, or the same as letters without curves. Why?

- Dash draws a student's initials. Who can guess the student first?

- Code Dash to draw the letter they hope to receive on their next assignment and draw a circle around the letter.

wonder workshop