

Learn to Code Curriculum Guide

Everything educators need to know to get their students started with Dash & Dot's Learn to Code Curriculum.



Ready, Set, Go!


Time: 5 minutes


Hints


- The light blocks are **dark blue**. You can find a light block by going to the **Light** menu and selecting an **All Lights** block. Then tap on the block to select a color.
- The **animation** block is a different color. Go to the **Animations** menu and select a **Race** block.


A | 1.1
Sequences


1. First, the **stoplight** is **yellow**. Use this block to make Dash turn **yellow**:






2. Now make Dash turn **red**.


3. Now make Dash turn **green**.


4. Yes! Now Dash can go! Let's add a **Race** animation.





Discussion Questions

1. How could you add to the code? What other **lights** or **animations** would you like to add?
2. How do the blocks tell Dash what to do?

Cross-Curricular Connections

MATH

- Have students count how many **light** blocks and **animation** blocks were used. Then have them add the two types of blocks to determine the total number of **light** and **animation** blocks used. (CCSS.MATH.K.MD.B.3)

ELA

- Have students draw a series of pictures to illustrate Dash's program (e.g., yellow lights, red lights, green lights, Dash racing). (CCSS.ELA.W.K.3)

NOTES:

Ready, Set, Dance!

Time: 10 minutes

Hints

- The **light** blocks are **dark blue**. You can find a **light** block by going to the **Light** menu and selecting an **All Lights** block. Then tap on the block to select a color.
- The **animations** block is a different color. Go to the **Animations** menu and select a **dance** block.

A | 1.2
Sequences

1. Let's make a **light pattern** with the **All Lights** block.

All Lights

2. Now have Dash make this **light pattern**:

blue: orange: green:

Have Dash make the **light pattern** again.

blue: orange: green:

3. Now let's add a **Dance** animation.

Dance

Dash

Confident

★ [Change the colors and make a new pattern!](#)

When
Start

All Lights

All Lights

All Lights

All Lights

All Lights

All Lights

Dance
Dash
Confident

Discussion Questions

1. How can you make a new light pattern with this program?
2. How can you make a longer light pattern?

Cross-Curricular Connections

MATH

- Have students count how many blue **All Lights** blocks, orange **All Lights** blocks, and green **All Lights** blocks were used. Then have them add the **blue**, **orange**, and **green** blocks to determine the total number of blocks used. (CCSS.MATH.K.MD.B.3)

ELA

- Have students write the first letter of each color they used in the program (e.g., blue, orange, blue = B, O, B). Then, have students plan and try out a different color pattern by writing the first letter of each color and then using the corresponding blocks in the program.

(CCSS.ELA.RF.K.2)

NOTES:

Ready, Set, Rainbow!

Time: 10 minutes

Hints

- The **light** blocks are **dark blue**. You can find a **light** block by going to the **Light** menu and selecting an **All Lights** block. Then tap on the block to select a color.
- You can choose any **animation**. Which one works best with the rainbow?

A
1.3
Sequences

1. Use **light** blocks to make a rainbow with Dash!

All Lights

2. Make sure Dash shows all of these colors:

| | | | | | |
|--------|--|---------|--|---------|--|
| red: | | orange: | | yellow: | |
| green: | | blue: | | purple: | |

3. Now add an **animation** block. You can choose something like this:

Expression
Dash
Laugh

★ BONUS Add sounds after each color!

Weird
Dash
Beeps

When
Start

All Lights

All Lights

All Lights

All Lights

All Lights

All Lights

Expression
Dash
Laugh

Discussion Questions

1. How could you make Dash show the **rainbow** twice?
2. How could you add **sound** blocks to the middle of the code? Which blocks would you want to use?

Cross-Curricular Connections

MATH

- Have students count how many **light** blocks, **sound** blocks, and **animation** blocks were used. Have them add the **start**, **light**, **sound**, and **animation** blocks to determine the total number of blocks used. (CCSS.MATH.K.MD.B.3)

ELA

- Have students draw a series of pictures to illustrate Dash's program (e.g., red lights, orange lights, Dash laughing, Dash making a funny sound, etc). (CCSS.ELA.W.K.3)

NOTES:

Smile, Dot!

Time: 10 minutes

Hints

- You can find the **Eye Pattern** block in the **Light** menu.
- You can turn off all of Dot's eye lights by using the **Eye Pattern** block. Tap the **Eye Pattern** block and touch each light to turn it off.
- How can you program Dot to make a **sound**? Choose the **Say** block from the **Sound** menu. Tap the block and then tap **Dot** at the top of the menu to see all of Dot's sounds.

A screenshot of the Scratch programming environment. The title bar shows 'A | 2.1 Sequences'. The script area contains the following blocks:

1. First, let's **turn off** all of Dot's lights. (A small black circle icon representing a light is shown next to the text.)
 - Block: **Eye Pattern** **All off**
 - Block: **All Lights** (with a black bar over the light indicator)
2. Dot is sad. Have Dot make a **sad** sound.
 - Block: **Say** **Dot** **Sigh**
3. What can you do to help Dot feel better?
 - Block: **Wait for** **2** **seconds**
4. Let's **hold** Dot!
 - Block: **Play** **Dot** **Hold**

Below the blocks, the text reads: "Yay! Now Dot feels a lot better." A yellow star icon is followed by the text: "Add more blocks to show that Dot is happy." At the bottom, there are two more blocks: **Say** **Dot** **Weel** and **All Lights** (with a yellow bar over the light indicator).

A close-up view of a Scratch script. The script consists of the following blocks stacked vertically:

- When Start** (green flag icon)
- All Lights** (blue block with a black bar over the light indicator)
- Eye Pattern** **All off** (blue block)
- Say** **Dot** **Sigh..** (orange block)
- Wait for** **2** **seconds** (yellow block)
- Play** **Dot** **Hold** (purple block)

Discussion Questions

1. What **sound** blocks can you use to show that Dot is happy?
2. What **light** or **animation** blocks could you use to show that Dot is happy? Could you also use a different **Eye Pattern** block or different **colors**?

Cross-Curricular Connections

MATH

- Have students count aloud as they turn off each eye light. (CCSS.MATH.K.CC.A.3)

ELA

- Discuss why Dot might be sad and why Dot feels happy after being held. Then have students draw or write about what makes them feel sad and happy. (CCSS.ELA.W.K.8)

NOTES: