wonder workshop

dash & dot challenge cards

Dot at the Petting Zoo: B 2.1 - B 2.3

Are you ready to take on the challenge?

- Review the first **Challenge Card** in the set.

- Use one of the **Planning Worksheets** to plan out your code.

- Open the *Blockly* app.

- Complete the challenge.

- Take a video of your robot as it completes the challenge.

- Use one of the **Reflection Worksheets** to reflect on your work.

- Work through each of three **Challenge Cards** in the same way.
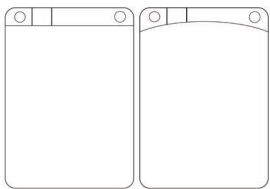
Bonus
You can design your own Challenge Card and have your friends try them out!
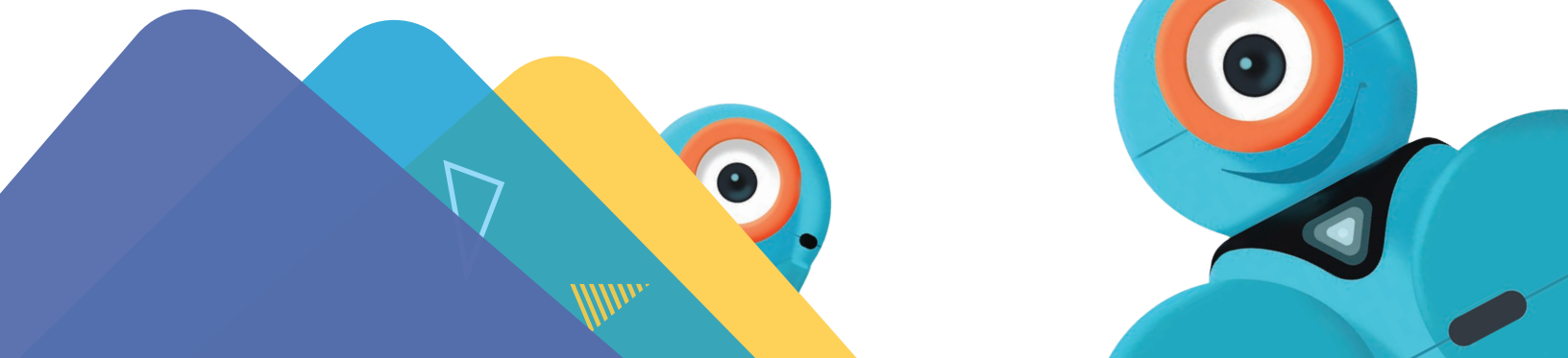
Petting Zoo

Dot is visiting a petting zoo.
There are all kinds of animals.
What animal is Dot petting?

1. Let's start with a **Repeat Forever** block.

   Repeat forever

2. Now let's have **Dot** make some **animal sounds**. Set the **Animal** sound block to **Random** and put it **inside** the **Repeat Forever** block.

   Animal Dot (Random)

3. Have Dot wait for **4 seconds**. Put the **Wait For** block **inside** the **Repeat Forever** block.

   Wait for 4 seconds

4. Can you guess what animal Dot is petting before Dot makes a new **animal sound**?

   BONUS **Record** your own **animal sounds** to add to the petting zoo.

   My Sounds

Quick, Hide!

The animals at the zoo have escaped!
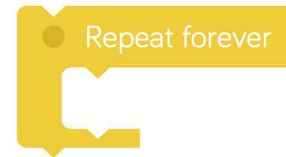Dot needs to hide!

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1. Dot needs to hide from the animals that have escaped! Let's start with a **Repeat Forever** block.

   Repeat forever

2. Dot hears an animal! Set the **Animal** sound block to **Random** and put it inside the **Repeat Forever** block.

   Repeat forever
   Animal Dot (Random)

3. Turn all of Dot's lights **off** by moving the **light** blocks **inside** the **Repeat Forever** block.

   Eye Pattern   All Lights ▬

4. Now wait for **5 seconds** as the escaped animals walk by Dot.

   Wait for 5 seconds

5. It's safe now! Turn all of Dot's **lights** back **on**.

   Eye Pattern   All Lights ▭

You Are Getting Sleepy...

The lion and bear from the zoo have found Dot! To escape, Dot needs to make the animals go to sleep.

1. To make the lion go to sleep, Dot needs to make a sleepy **eye pattern**.

2. Now Dot needs a **different** sleepy **eye pattern** for the bear.

3. **Repeat** each **eye pattern 5 times**.

4. Great job! Now Dot can escape.

BONUS Create your own sleepy **eye pattern** to make another animal go to sleep.
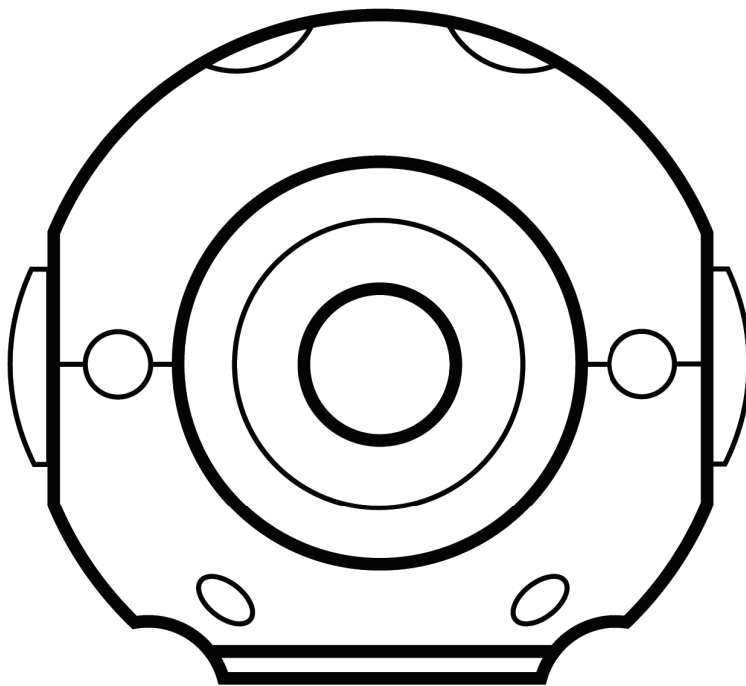
Dot Planning Worksheet

Name(s): _____   Date: _____

Coding Level: _____   Card #: _____

What do you want Dot to do?

Draw out the steps of the challenge or write a few sentences describing your goal.

General Planning Worksheet

Name(s): _____   Date: _____

Coding Level: _____   Card #: _____

1. What do you want Dash or Dot to do?

Draw out the steps of the challenge or write a few sentences describing your goal.

2. What will you do to achieve your solution?

What will each team member do? What steps will you need to take? What blocks will you use?
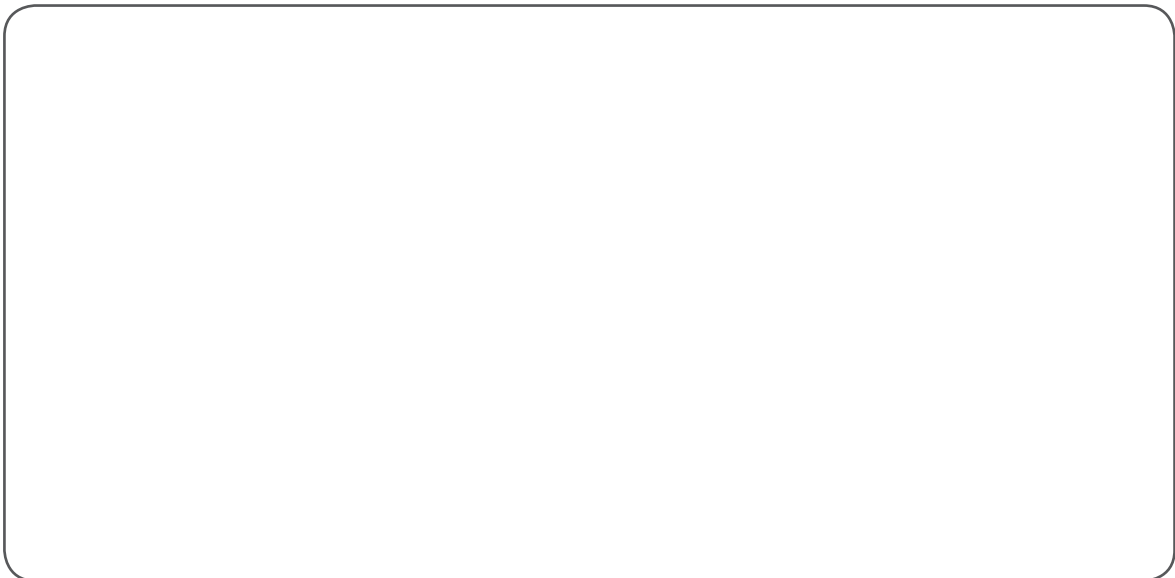
Reflection Worksheet

Name(s): _____   Date: _____

Coding Level: _____   Card #: _____

1. What did Dash and/or Dot do when you ran your program?

2. Did you make any mistakes? If so, how did you fix them?

Advanced Reflection Worksheet

Write a reflection entry in your Wonder Journal. Try to answer these questions as part of your reflection:

Results

- What did Dash and Dot do when you ran your program?

- Did you make any mistakes? If so, how did you fix them?

Connections

- What did you like the most about this challenge? Why?

- What was the most difficult part of the challenge? What did you learn from it?

Next Steps

- If you had more time, how would you change or add to your code?

- What are you planning to do next? Will you try another Challenge Card or start a new coding project?