

Unit 2, Lesson 7: Find Our Food!

Lesson Intro:

Theme of the Day
Our animals have food in their habitat and know how to move, but has anyone seen them actually get to their food?! Today students will be able to explain and create conditional (if/then) statements in their Scratch habitat in order to “feed” their animal when it is moving around.

Learning objectives	Concepts (Social & Cross Curriculum)
<ul style="list-style-type: none">- Understand conditional statements- Build and insert conditional statements into your Animal Sprites to help it recognize its “food”	<ul style="list-style-type: none">- Cause/Effect- Conditionals

Vocabulary	Guiding Questions
<ul style="list-style-type: none">- Conditionals- If/then- Event- Sensing	<ul style="list-style-type: none">- How can we make our animals react to food when they find it in their habitats?- What do you think could make your animal’s habitat more real in Scratch?

Resources
<ul style="list-style-type: none">● Computers● Scratch Program● Rules for Coders and Detectives● Inserting Conditionals Sheet● Space Bucks

Lesson Procedure:

Camp Fire (15 min)

Don't Forget: Have "Rules for Coders and Detectives" displayed in class

Mini-lesson:

For today's campfire we will be playing a game to reinforce conditional (if/then) statements, called "Coders and Detectives." Review the rules below with students:

How to Play "Coders and Detectives":

1. Stand students in a circle, facing each other

2. Choose one student to be the "Detective"

Send this student out of the room or get him/her to shut their eyes and look away.

3. Choose one of the students in the circle to be the "Coder"

The coder will make movements like tapping their knees or rubbing their head. They should change movements every 5 seconds.

4. The rest of the students are "Sprites" who will follow the Coder's directions/movements

These students should follow the Coder's movements as soon as the coder makes them and change their movements when the coder does.

5. The Sprites don't want to make it obvious whose lead they are following

Students/Sprites should try to copy the coder as fast as possible so it is hard to figure out the identity of the coder.

6. The role of the Detective is to figure out the identity of the Coder and tell their teacher who they think it is!

7. The game ends when the Coder is correctly identified

Then start the game! Choose and send the detective out of the room and then choose a Coder. Once students have started following the Coder's first movements, invite the Detective back inside.

Play a few rounds with different Detectives and Coders.

After the game review what the conditional between the Coders and the Sprites was. For example, "If the Coder tapped his/her knees, then all of the Sprites tapped their knees. If the Coder changed his/her movement, then all of the Sprites changed their movements."

Give out Space Bucks for students who are being creative and independent.

Teacher Guided Learning (10 min)

Don't Forget: Inserting Conditionals sheet

Mini-lesson:

Review the theme for the day. Remind students they have created habitats for their animals and that they also know how to create a loop. But looping is hard work for these animals, and we need to make sure the animals can eat the food we put in the habitats during our last session!

Now we are going to help their animals find food in their habitat! We will also make their animals say something once they find their food.

We will do this using conditional code blocks that tell them what to do **if** something happens.

If an animal touches its food **then** it will say "Yummy." Remind students that these are called conditionals. Students will be using blocks from the **Events**, **Sensing** and **Sound** categories in Scratch.

If you'd like, you can walk the students through the creation of a loop with conditionals, using the **Inserting Conditionals** worksheet. Be sure to point out where the blocks are coming from and how you fill out the blocks carefully.

All of this information can be found in the Screencast in the Student Facing Video as well.

Give out Space Bucks for kids who are on task.

Partner/Team Practice (20 min)

Don't Forget: Inserting Conditionals sheet, no video

Mini-lesson:

During partner practice, students will have the opportunity to jump right into Scratch. There is no video for partner practice. Their job during partner practice is to follow the Inserting Conditionals worksheet. This is modeled in the Student Facing Video in Teacher Guided Learning.

Instruct students to go back to the project that they created/saved in Lesson 2.5, called Animal Habitat. If students cannot find their project or if they feel like they should start over, using the resources from Lesson 2.5 and, have them push create and save/share/title Animal Habitat 2.

Tell students that they should follow the directions on the handout sheet. Remind students that it is important to stay organized with regard to placing their codes in the Scratch projects.

If there is time, students should experiment by either creating new codes or by making their loop more complex. Make sure students save and share.

Give out Space Bucks to students who are on task and showing great teamwork skills.

Reflect/Connect (5 min)

Don't Forget: *NA*

Mini-lesson:

Discuss the following question also posed in the Student Facing Video to reflect on progress with students.

“What do you think could make your animal’s habitat more real in Scratch?”

Allow all types of answers. Pump students up by letting them know they will have a chance to explore in the next lesson some of their ideas.

If no one says it, prompt students to notice that the food doesn’t disappear when the animals touch it and say “Yummy”. Explain that we will be learning how to make it seem like their animals are eating in the next lesson.

Models:

Rules for Coders and Detectives

HOW TO PLAY "CODERS AND DETECTIVES"

- 1 Stand students in a circle, facing each other
- 2 Choose one student to be the "Detective"
- 3 Send the detective out of the room or get him/her to shut their eyes and look away.
- 4 Choose one of the students in the circle to be the "Coder"
- 5 The rest of the students are "Sprites" who will follow the Coder's directions/movements
- 6 The Sprites don't want to make it obvious whose lead they are following
- 7 The role of the Detective is to figure out the identity of the Coder and tell their teacher who they think it is!
- 8 The game ends when the Coder is correctly identified

Inserting Conditionals Sheet

INSERTING CONDITIONALS

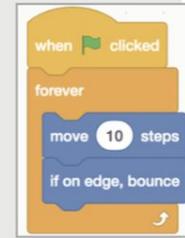
1

Click on your animal Sprite



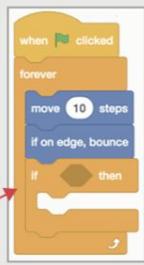
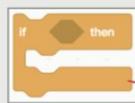
2

Remake the “loop” code for your animal Sprite



3

Put the “if then” block inside your loop code



4

Put the “touching mouse pointer” block inside the “if then” code block



5

Click on “mouse pointer” and change it to your animal’s food



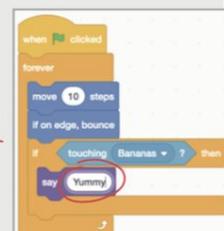
6

Put the “say hello” block inside the “if then” block



7

Change the word “Hello!” To “Yummy”



8

Your new code is ready to use. Make sure to test it!

