

# Mat 6 Code Explanation Sheet

## Lesson 1:

**Backdrop:** stage 1 - the city

**Sprites:**

- Sunny the Robot (hidden)
- Rubi (visible)
- Trash sprites (hidden):
  - Waste
  - Compost
  - Recycle 1 (the aluminum can)
  - Recycle 2 (the plastic bottle)

## Code

### Sunny the Robot sprite

when green flag clicked

show // the Sunny sprite is initially hidden

go to x: -110 y: 103 // Sunny goes to the first position

start sound "Computer beeps2"

say "Hi, I'm Sunny! Let's learn about waste separation." for 3 seconds

broadcast [introduce Rubi]

### Rubi sprite

when I receive [introduce Rubi]

say [Hi, I'm Rubi! Let's keep our city clean.] for 2 seconds

hide

broadcast [show trash]

### Sunny the Robot sprite

when I receive [introduce Rubi]

go to x: -115, y: 11 //Sunny goes to the second position

when I receive [show trash]

go to x: -8, y: -122 //Sunny goes to the third position

### Waste sprite

when I receive [show trash]

show

when this sprite is clicked

say "This is supposed to go in the waste bin."  
hide

### **Recycle 1 sprite**

when I receive [show trash]  
show  
when this sprite is clicked  
say "Aluminum cans are supposed to go in the recycling bin."  
Hide

### **Compost sprite**

when I receive [show trash]  
show  
when this sprite is clicked  
say "The banana peel is supposed to go in the compost bin."  
Hide

### **Recycle 2 sprite // make sure to click the plastic bottle LAST!**

when I receive [show trash]  
show  
when this sprite is clicked  
say "Plastic bottles are supposed to go in the recycling bin."  
hide  
broadcast [end lesson 1]

### **Sunny the Robot sprite**

When I receive [end lesson 1]  
Go to x: 97, y: -120  
Say "Click me to start lesson 2!" for 3 seconds  
When this sprite is clicked // [player has to press the SUNNY SPRITE to go to next lesson](#)  
Broadcast [start lesson 2]

## **Lesson 2:**

**Backdrop:** stage 2 - the forest

### **Sprites:**

- Sunny the Robot (visible)
- Owl (hidden)
- Bins (hidden):
  - Plastic
  - Paper

- metal

## Code

### **Backdrop**

when I receive [start lesson 2]  
switch backdrop to 2

### **Sunny the Robot sprite**

when I receive [end lesson 1]  
go to x: 97 y: -120  
broadcast start lesson 2  
when I receive [start lesson 2]  
go to x: -58, y: -124  
start sound [computer beeps2]  
say "Let's go to the recycling center!" for 3 seconds  
broadcast [introduce owl]  
when I receive [explain plastic]  
go to x: 66, y: -122

### **Owl sprite**

when I receive [introduce owl]  
show  
start sound [owl sound]  
say "Hello! I can teach you about recycling." for 3 seconds  
hide  
broadcast [explain plastic]

### **Plastic bin sprite**

when I receive [explain plastic]  
show  
say "Plastic bottles can be recycled into new bottles." for 3 seconds  
hide  
broadcast [explain paper]

### **Paper bin sprite**

when I receive [explain paper]  
show  
say "Paper can be recycled into new paper products." for 3 seconds  
hide  
broadcast [explain aluminum]

### **Metal bin sprite**

Metal bin Sprite

when I receive [explain aluminum]

show

say "Aluminum cans can be melted and reused." for 3 seconds

hide

broadcast [end lesson 2]

### **Sunny the Robot sprite**

// end of the lesson event is received

when I receive [end lesson 2]

start sound "Computer beeps2"

say "Thanks for teaching us, Owl!" for 3 seconds

go to x: 147, y: -75

Say "Press the spacebar to go to lesson 3!" for 3 seconds

// player has to press SPACE BAR to go to next lesson

When space key is pressed

Broadcast [start lesson 3]

## **Lesson 3:**

**Backdrop:** stage 3 - the river

**Sprites:**

- Sunny the Robot (visible)
- Mr. Beaver (hidden)

### **Code**

#### **Backdrop**

// this is where we change the backdrop

when I receive [start lesson 3]

switch backdrop to 3

#### **Sunny the Robot sprite**

// As Mr. Beaver is talking, Sunny will move to different positions on the sheet.

when I receive [start lesson 3]

go to x: -141, y: -55

when I receive [explain conservation]

go to x: -45, y: -111

when I receive [explain climate change]

go to x:-45, y:-9

when I receive [explain coexistence]  
go to x: 60, y: -110

### **Mr. Beaver sprite**

when I receive [start lesson 3]  
show  
wait 1 second  
say "Welcome! Let's talk about conservation." for 3 seconds  
*// Sunny will start moving across the sheet to different positions, whilst Mr. Beaver explains the different topics.*  
broadcast [explain conservation]  
when I receive [explain conservation]  
wait 1 second  
say "Creating wildlife reserves helps protect animals." for 3 seconds  
wait 2 seconds  
say "Pollution harms animals and their habitats." for 3 seconds  
broadcast [explain climate change]  
when I receive [explain conservation]  
wait 1 second  
say "Climate change threatens species survival." for 3 seconds  
wait 2 seconds  
say "Sustainable practices prevent resource overuse." for 3 seconds  
broadcast [explain coexistence]  
when I receive [explain coexistence]  
wait 1 second  
say "Humans need to live peacefully with wildlife." for 3 seconds  
wait 2 seconds  
say "Thanks for listening!" for 3 seconds  
hide  
broadcast [end lesson 3]

### **Sunny the Robot sprite**

when I receive [end lesson 3]  
go to x: 152, y: -111  
start sound computer beeps2  
say "Thanks, Mr. Beaver!" for 3 seconds  
Say "Press the right arrow key to go to lesson 4!" for 3 seconds  
When [right arrow] key is pressed *// player has to press RIGHT ARROW KEY to go to next lesson*  
Broadcast [start lesson 4]

## Lesson 4:

**Backdrop:** stage 4 - Terra Verde

**Sprites:**

- Sunny the Robot (visible)
- Flora (hidden)
- Monkey (hidden)
- Bird (hidden)

### Code

#### **Backdrop**

// this is where we change the backdrop

when I receive [start lesson 4]

switch backdrop to 4

#### **Sunny the Robot Sprite**

when I receive [start lesson 4]

go to x: -149, y: -119

start sound computer beeps2

say "Let's visit Terra Verde!" for 3 seconds

go to x: -88, y: -118

broadcast [meet Flora]

//Sunny moves across the sheet as Flora and the animals are talking

when I receive [tour affected areas]

go to x:56, y:-111

when I receive [help conservationists]

go to x:67, y:75

when I receive [end lesson 4]

go to x:146, y:147

start sound computer beeps 2

// This is the end of all 4 lessons

say "Thanks for helping, Flora!" for 3 seconds

#### **Flora Sprite**

when I receive [meet Flora]

show

say "Welcome! Let's talk about deforestation." for 3 seconds

broadcast [tour affected areas]

when I receive [tour affected areas]

say "Deforestation is harming our forest and wildlife." for 3 seconds

broadcast [meet animals]

// the animals appear, you can see the code for them below

when I receive [help conservationists]

say "Let's help with reforestation and protect the forest." for 3 seconds

wait 1 second

say "We need strong laws to protect our forests." for 3 seconds

hide

broadcast end lesson 4

### **Monkey Sprite**

when I receive [meet animals]

show

say "We lost our home due to logging" for 2 seconds

hide

### **Bird Sprite**

when I receive [meet animals]

show

wait 3 seconds

say "I can't find a place to nest." for 2 seconds

hide

broadcast [help conservationists]

### **To reset stage:**

When **green flag** is clicked

Switch backdrop to 1

