Creative Coding with Scratch
Busy City

Getting Started

Select **Night City With Street** backdrop.

Choose **Convertible 2**, **Avery Walking** and **Motorcycle** from the sprite library.

Reduce the size of each sprite and arrange the position of each sprite as required using **go to** blocks.

```
go to x:        y:
```

Challenge 1

Can you add a sound effect to each sprite?

Challenge 2

Can you make the sprites move at different speeds?

Challenge 3

Can you make **Avery** talk?

Challenge 4

Can you change costumes to make **Avery** look like she is walking?

I can:

change the size and position of sprites; ☐

add sound effects; ☐

make sprites move at different speeds; ☐

make a sprite talk; ☐

use costumes to improve the movement of a sprite. ☐

Helpful Hints
Busy City

Use these hints to help you complete the challenges. They will not give you the complete solution to the algorithm but should help you on your way.

To add a sound effect:

play sound **Car Passing** ▾ until done

To make a sprite talk:

say **Slow down!** for **2** seconds

To make sprites move at different speeds:

when **right arrow** ▾ key pressed

move **10** steps

Top Tip

Edit the number in the **move** block to change the speed at which a sprite moves. The higher the number, the faster the speed. Each sprite will need its own algorithm.

when [right arrow ▾] key pressed

forever

move (10) steps

switch costume to [avery walking-a ▾]

wait (0.5) seconds

To change costumes and make **Avery** walk:

Top Tip

You will need to repeat some of these blocks so that you use all the costume changes for **Avery**. Make sure that all the blocks are inside the **forever** loop. This will make **Avery** look like she is walking.

Creative Coding with Scratch
Busy City **Answers**

Each Creative Coding Challenge is an open-ended task, which can be approached in many different ways. Pupils should be encouraged to have a go and tackle these tasks independently. The helpful hints are not intended to provide complete solutions but may serve as useful cues for supporting less-confident coders.

The following algorithms are just one possible solution to each challenge.

Challenge 1

The following code belongs on **Convertible 2**:

when [right arrow ▾] key pressed
start sound (Car Vroom ▾)

The following code belongs on **Avery Walking**:

when [right arrow ▾] key pressed
start sound (Car Passing ▾)

The following code belongs on **Motorcycle**:

when [right arrow ▾] key pressed
start sound (Car Horn ▾)

Challenge 2

The following code belongs on **Convertible 2**:

when [right arrow ▾] key pressed
repeat (5)
move (100) steps

The following code belongs on **Motorcycle**:

when [right arrow ▾] key pressed
repeat (20)
move (20) steps

twinkl

twinkl
Quality Standard
Approved

Challenge 3

The following code belongs on
Avery Walking:

when [right arrow ▾] key pressed

go to [front ▾] layer

say (Slow down!) for (2) seconds

Challenge 4

The following code belongs on
Avery Walking:

when [right arrow ▾] key pressed

forever

    move (10) steps

    switch costume to [avery walking-a ▾]

    wait (0.5) seconds

    move (10) steps

    switch costume to [avery walking-b ▾]

    wait (0.5) seconds

    move (10) steps

    switch costume to [avery walking-c ▾]

    wait (0.5) seconds

    move (10) steps

    switch costume to [avery walking-d ▾]

    wait (0.5) seconds