Lesson 4: Adding features

Programming – Events and actions in programs

National Centre for Computing Education

Lesson 4: Adding features

To develop my program by adding features

- I can identify additional features

- I can choose suitable keys to turn on additional features

- I can build more sequences of commands to make my design work

How can you change the way a line is drawn?

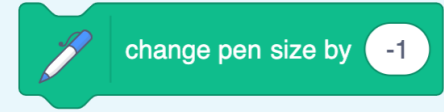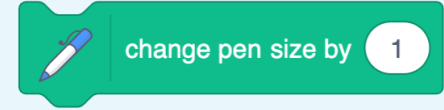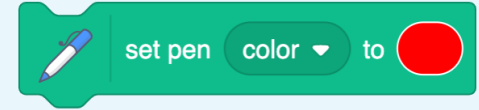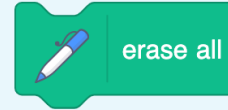Look at the Pen blocks opposite and share some ideas.

Think, pair, share.

erase all

set pen color ▾ to

pen up

change pen size by 1

pen down

change pen size by -1
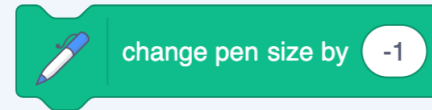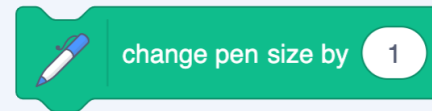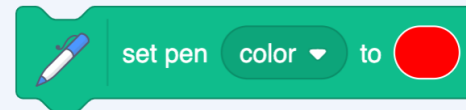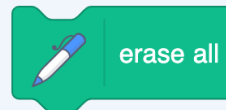
Try these blocks

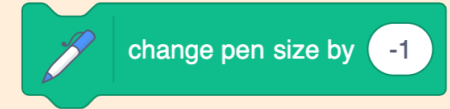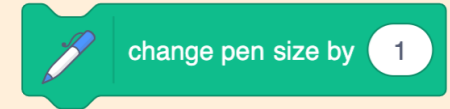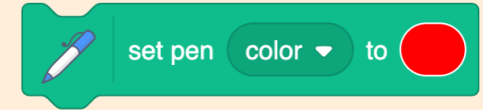These blocks have been added to this project:

ncce.io/pg3b-4-a1-ca

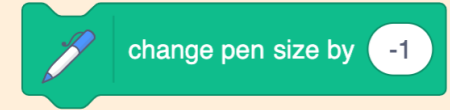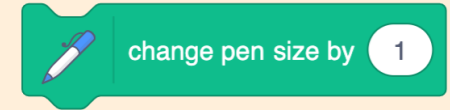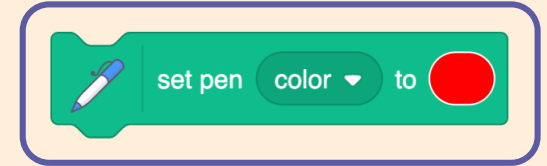Add a different **Events** block to each **Pen** block, and see what they do.
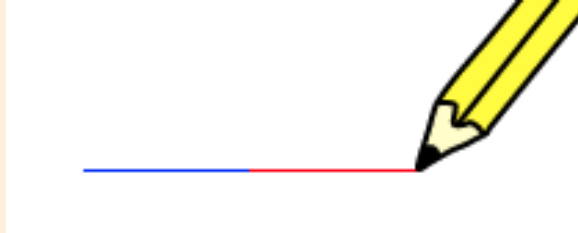
What is the difference between how these blocks work?
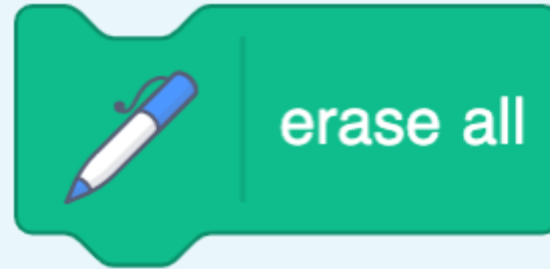
Which blocks have been used?

Which blocks have been used?

erase all

set pen color to ⬤

pen up

change pen size by 1

pen down

change pen size by -1

Which blocks have been used?

erase all

set pen color to

pen up

change pen size by 1

pen down

change pen size by -1
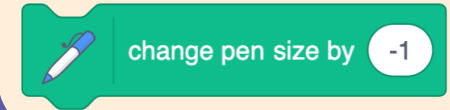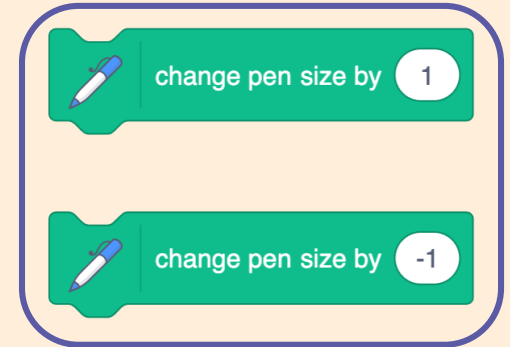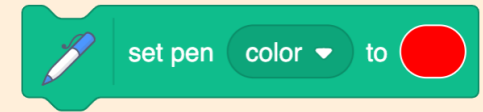
Design your drawing program

You can now create a project that:

- Moves a sprite
- Draws a line
- Draws lines that look different
- Removes all the lines drawn

Give each action an event and a description.

| Event	Action	Description (algorithm)
Press 'D'	Put the pen down on the page	
	Lift the pen off the page	Stops the pen drawing a line
	Rub out all the lines	
Press 'R'		Change the colour of the line to red
		Makes the line thicker
	Make the line one size thinner	

Add the new features in your design to your project

1. Open your project from last lesson

1. Use your design worksheet to help you add the new code

1. Test your project
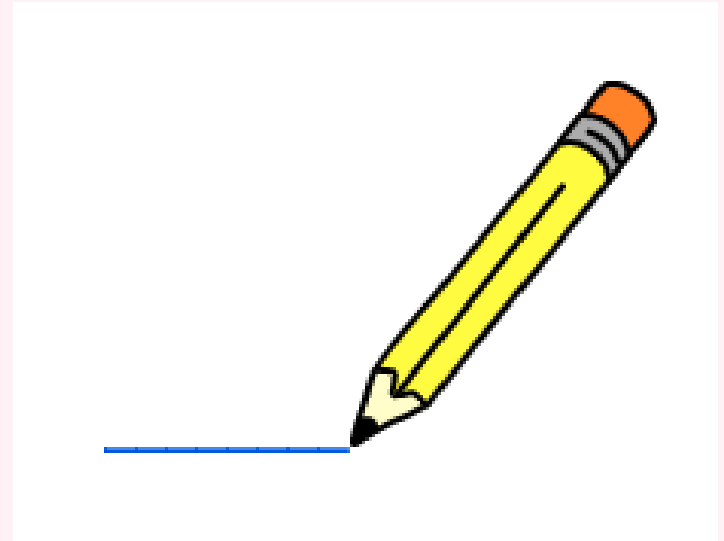
Which code snippets have been used to draw this line?

Think, pair, share.
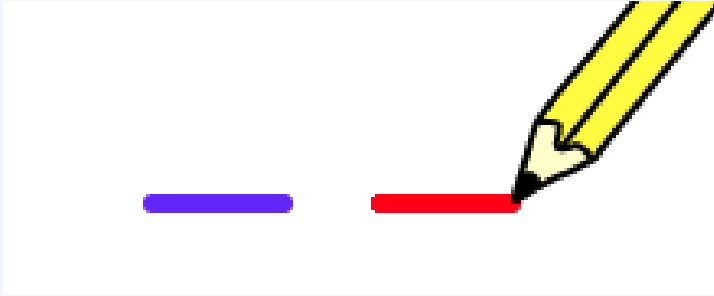
How confident are you? (1–3)

- I can identify additional features

- I can choose suitable keys to enable additional features

- I can build more sequences of commands to make my design work

3 – Very confident

2 – Unsure

1 – Not confident

Next lesson

In this lesson, you...

Created new effects with your pencil and designed your own drawing tool

Next lesson, you will...

Test your program, debug it by correcting any errors, then modify your design