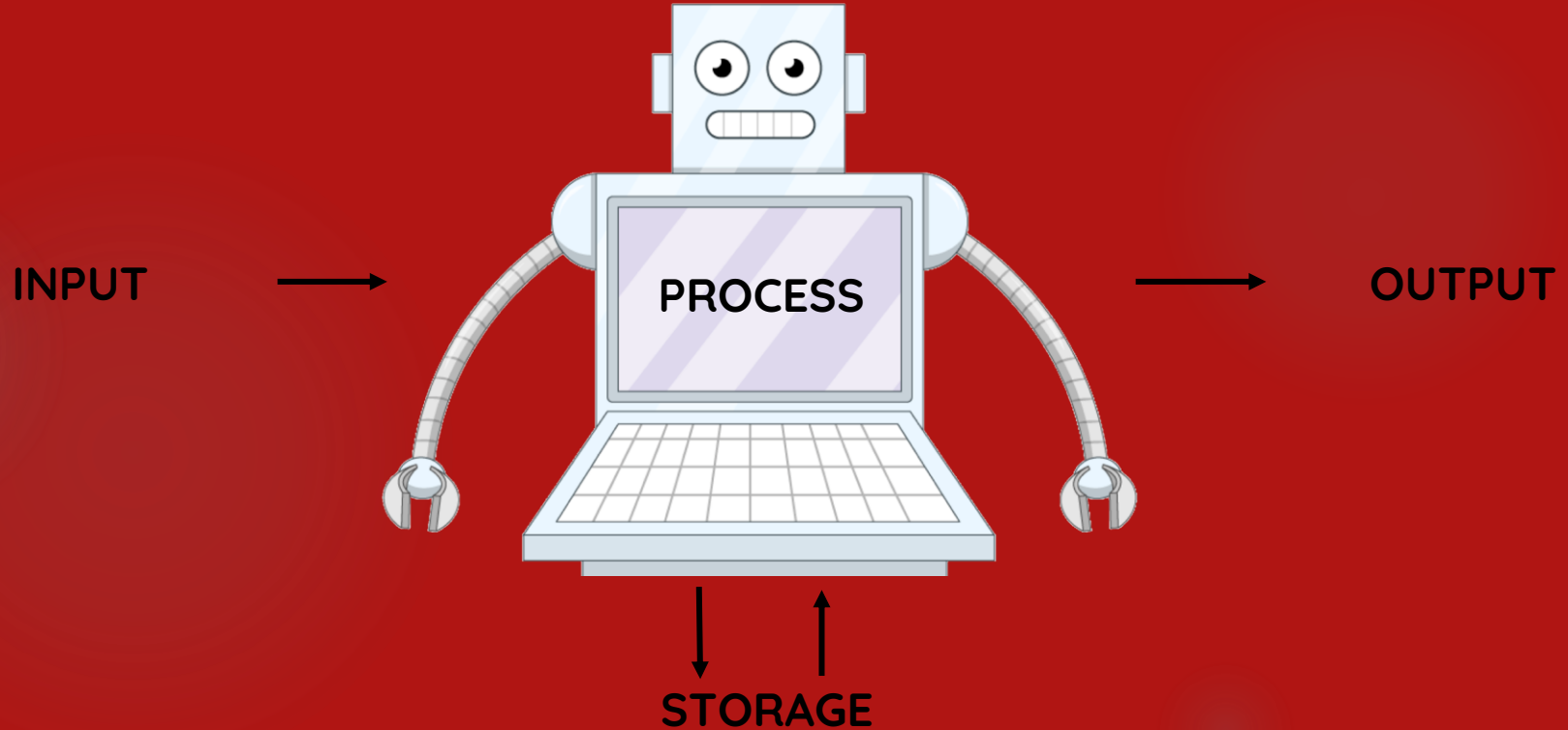# Input — process — output

INPUT

PROCESS

OUTPUT

STORAGE

Meet Big Ed

Big Ed is your friendly chatbot.

Your task is to work in pairs to answer the questions on the activity sheet. You'll find out what the code does and have the chance to experiment with it.

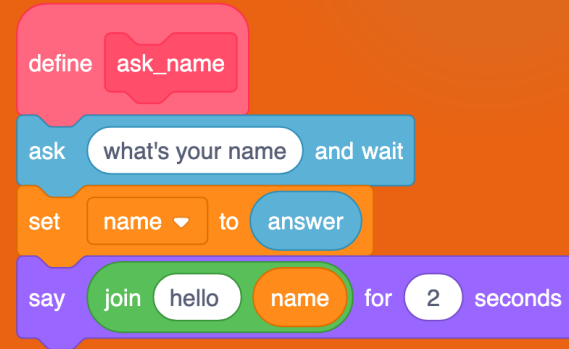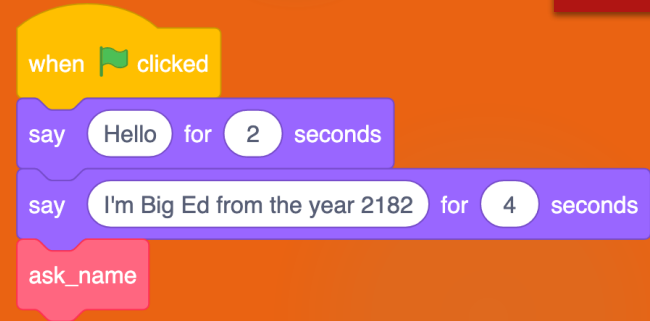Start by opening the Scratch program.

ncce.io/biged1

PREDICT

With a partner, spend time reading the code on the right. Predict what you think will happen.

Run the Scratch code from the link provided.

- Were your predictions correct?
- Did anything surprise you about the code?
- Did you miss anything out?

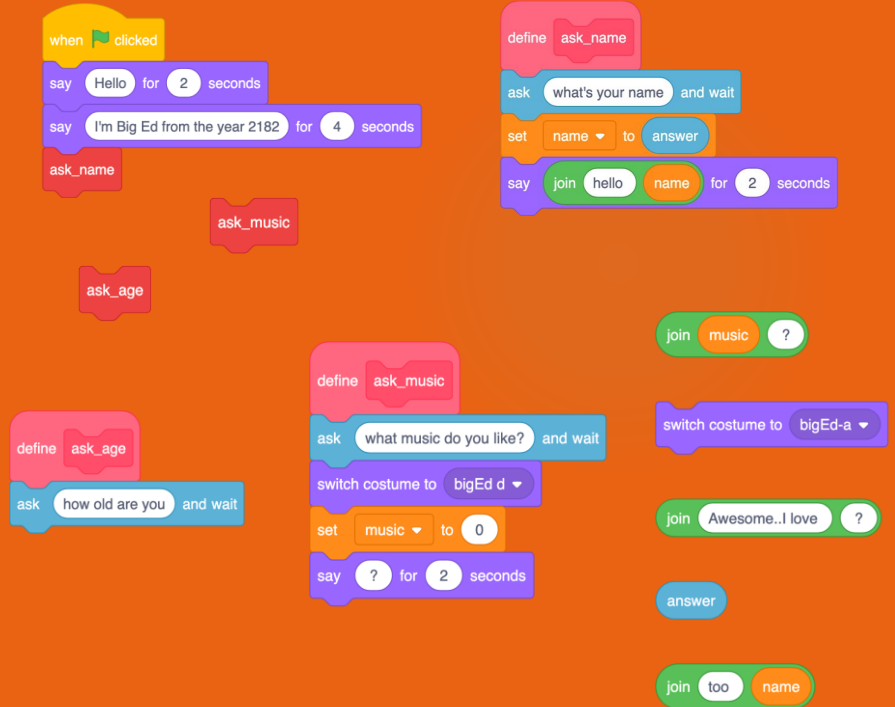ncce.io/biged1

Worksheet: INVESTIGATE and MODIFY

Continue with the worksheet.

Work in pairs, but complete your own worksheet.

Follow the instructions and investigate how the code works.

Move through the tasks independently.

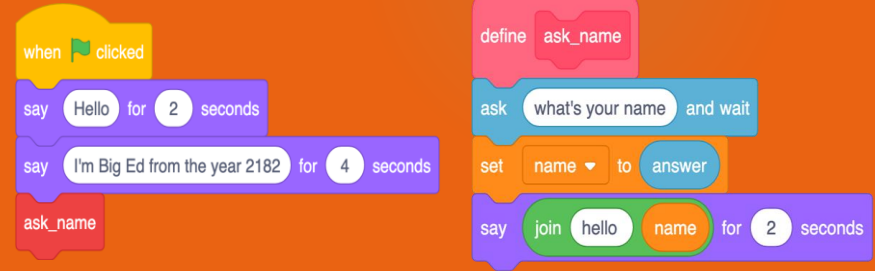Don't wait for your teacher to instruct you to move to the next section.

ncce.io/biged1

INVESTIGATE: Answers

How do the following two blocks relate to each other?

When your program reaches the ask_name block, it **calls** the **subroutine** 'define ask_name'.

'define ask_name' is a **subroutine.**
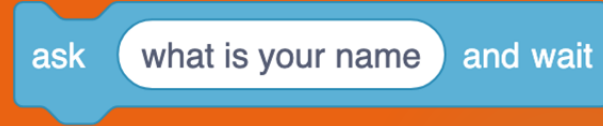
INVESTIGATE: Answers

What has this changed about the program when you run it?

Why do you think this is?

Big Ed will now only say "Hello".

As the question has not been asked, there is no 'answer'.

The line 'set name to answer' will now give name an empty value.

INVESTIGATE: Answers

Below 'define ask_name', there are two
variables being used.

What are their names?

1. **Answer**
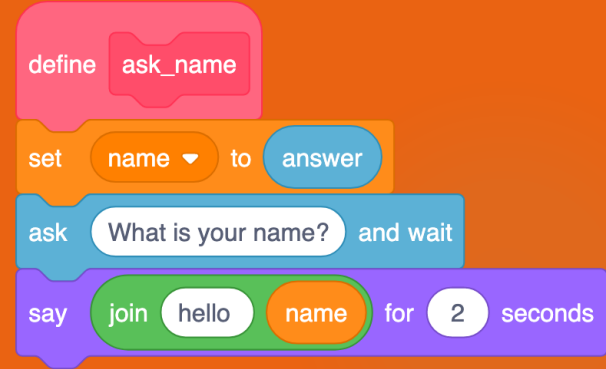2. **Name**

INVESTIGATE: Answers

Why do you think it only says "Hello" and not "Hello" and the name you entered?

What can you learn from this?

It is because 'name' is being linked to 'answer' before the question is asked.

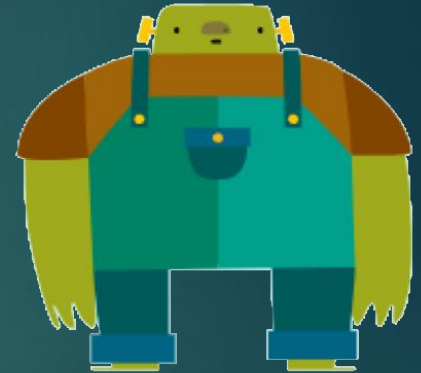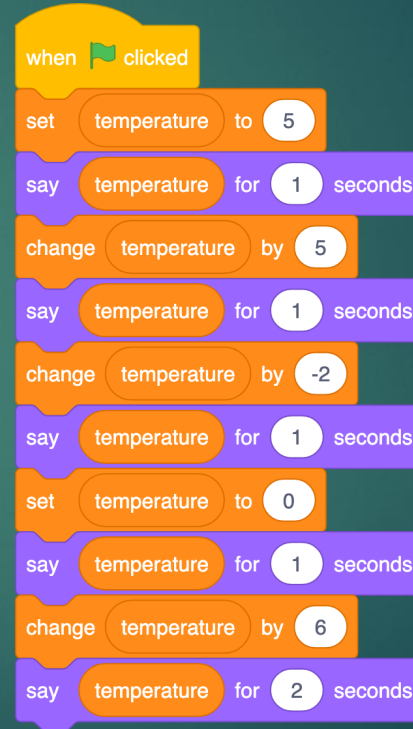You must always set the value of a **variable** before using it.

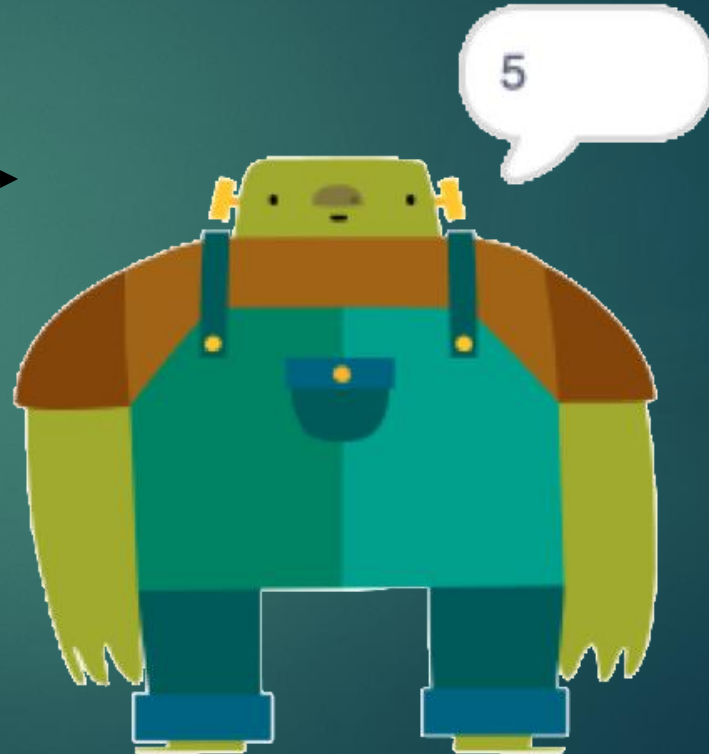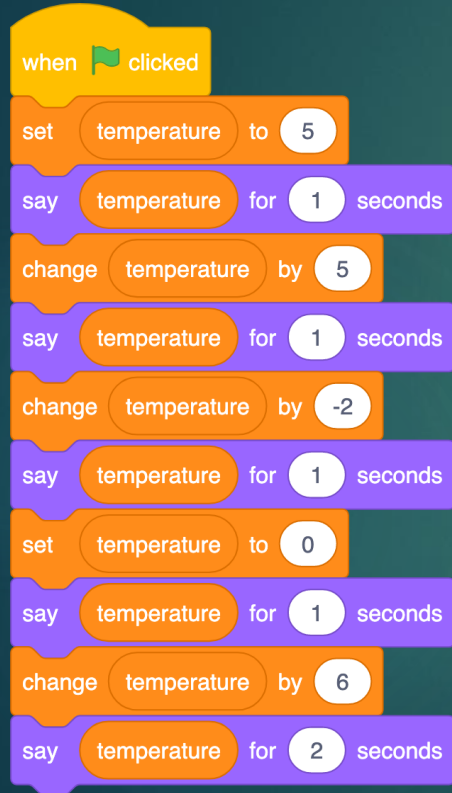# Trace the score variable: What will Big Ed say?

Big Ed has just arrived on a new planet and he's measuring the temperature of his new environment.

Use the activity sheet to trace (keep track of) the value of the temperature variable on each line that it is referenced.
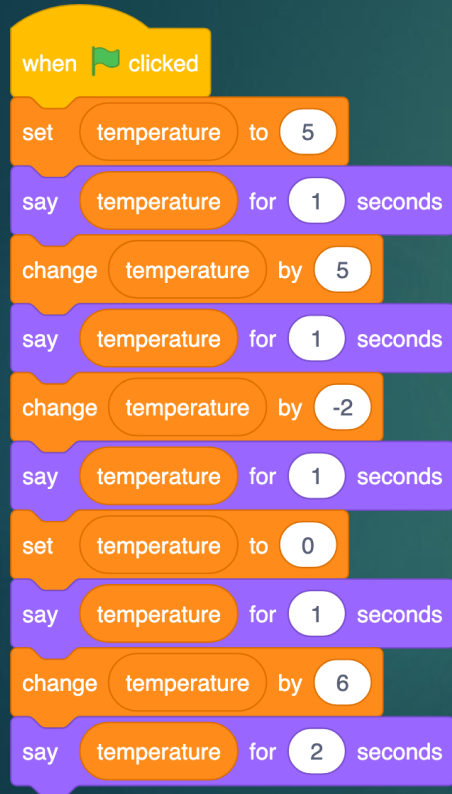
Fill in your activity sheet and write down what Ed will say on each line.


```
when [flag] clicked
set temperature to 5
say temperature for 1 seconds
change temperature by 5
say temperature for 1 seconds
change temperature by -2
say temperature for 1 seconds
set temperature to 0
say temperature for 1 seconds
change temperature by 6
say temperature for 2 seconds
```
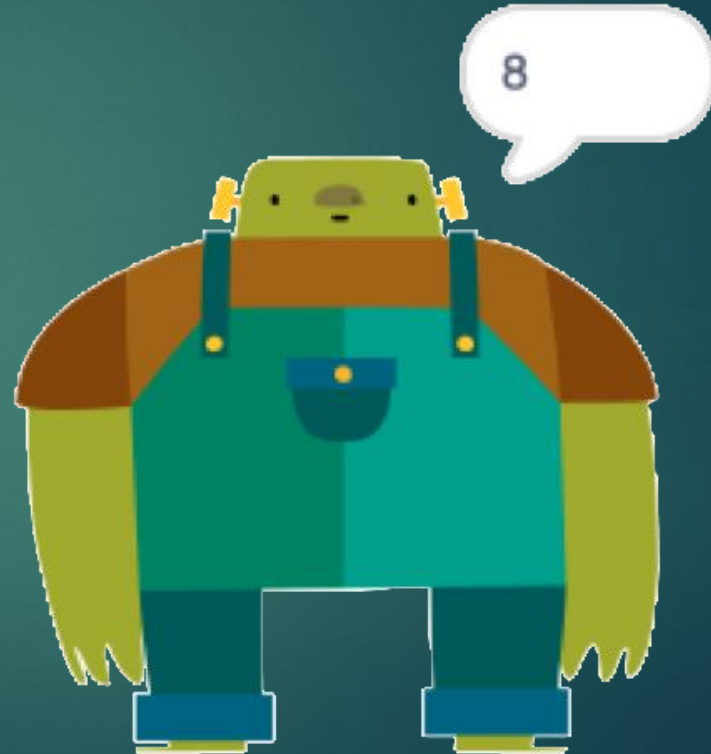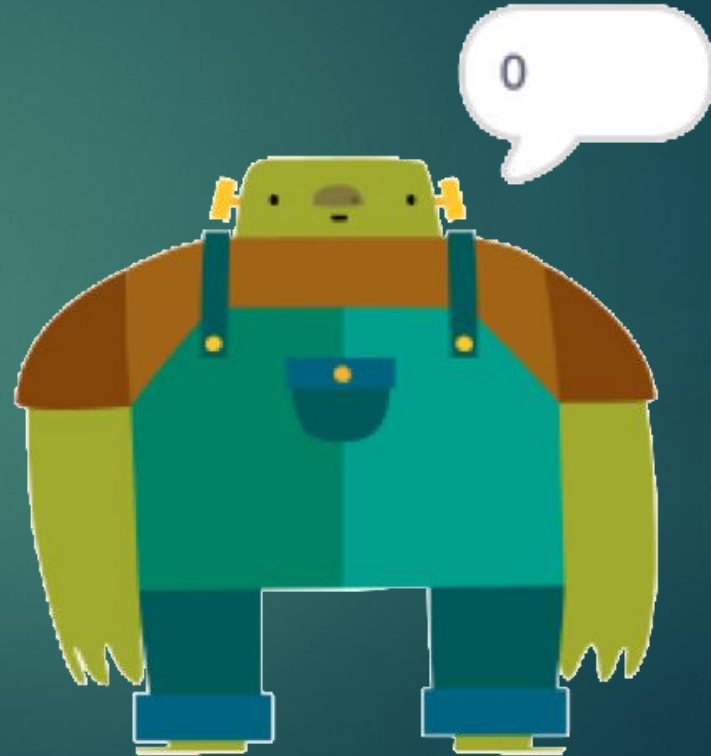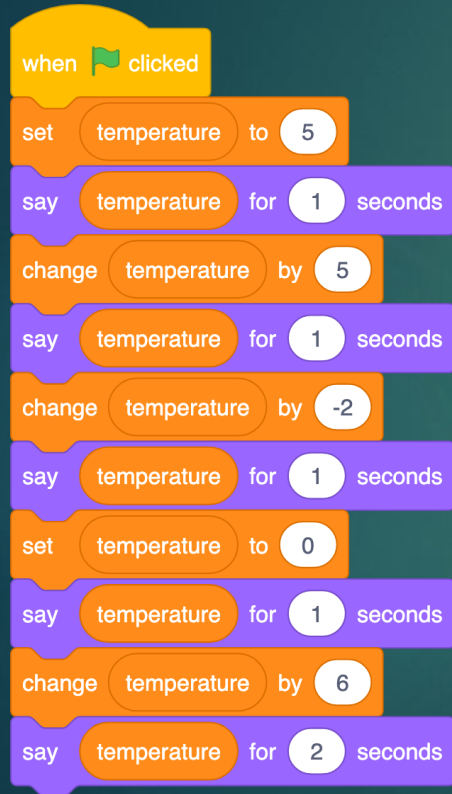
Trace the score variable: What will Big Ed say?

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```
when 🚩 clicked
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say  temperature  for  1  seconds
change  temperature  by  5
say  temperature  for  1  seconds
change  temperature  by  -2
say  temperature  for  1  seconds
set  temperature  to  0
say  temperature  for  1  seconds
change  temperature  by  6
say  temperature  for  2  seconds
```


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