



LEARNING INTENTION

I can program a robot to talk.

INTRODUCTION

Discuss with children whether they know of any robots that are able to talk. Discuss how, what and why they talk. Can they think of ways that talking robot could be helpful to us? Explain that Picoh can be programmed to talk. Play the children example script **Welcome2** to demonstrate that Picoh's speech. This week we are going to program Picoh to talk about us. Ensure that children have speakers or headphones connected to their computers so they can hear Picoh talk.

TEACHER INPUT 1

First, we need *when green flag clicked* block to start our program. Next, we need to go to the *Speech* palette and find *say until done*, followed by a *wait* from the *Control* palette.

File, Save As – talk

```

when green flag clicked
say Hello! How are you? until done
wait 1 secs
say I am a very clever robot because I know how to talk! until done
    
```

We can use this very simple program as a skeleton to build up a longer piece of code with speech. In task 1 we will write a paragraph of speech about ourselves. If we type our own name or the name of our school or favourite football team Picoh may not be able to say them correctly! Please don't worry about this, Picoh's speech is generated using a program that translates the letters into sounds, it doesn't have your knowledge of how to pronounce words that don't follow the rules!

File, Save As - sayname

ACTIVITIES

1. Can you write a program to make Picoh talk? Write a paragraph of code about yourself. E.g. my name is..... , I amyears old, my hobbies are etc. Keep each sentence as one line of code and remember to have a wait after each sentence.

File, Save As - allaboutme

2. Can you write a program to make Picoh talk and move? Just like **Welcome2**. E.g. I can move my head up and down like this. How many motors does Picoh have? (3). You need 3 parts to your code.

File, Save As - talkandmove

```

when green flag clicked
say I have three motors. Let me show you how I can move. until done
wait 2 secs
say I can move my pupils up and down like this... until done
repeat 3
set EyeTilt both to 10
wait 1 secs
set EyeTilt both to 5
wait 1 secs
set EyeTilt both to 5
say I can move my pupils left and right like this... until done
repeat 3
set EyeTurn both to 10
wait 1 secs
set EyeTurn both to 0
wait 1 secs
set EyeTurn both to 5
    
```

Top Tip - Try duplicating scripts. How? (Right click the mouse on an instruction to copy a sequence of code).

EXTENSION

Ask children to open the program called 'talk' that they wrote at the start of the lesson. Try to write an additional code sequence (to accompany the speech) to make Picoh's bottom lip move down and up while it is talking?

```
when clicked
say Hello!
wait 1 secs
say What is your name?
wait 1 secs
say How old are you?
wait 1 secs
say Do you have any brothers or sisters?
wait 2 secs
say What school do you go to?
wait 2 secs
set TopLip to 5
set BottomLip to 5
stop all
```

```
when clicked
forever
set BottomLip to 8
wait 0.5 secs
set BottomLip to 5
wait 0.5 secs
```

PLENARY

Look at examples of the children's coding. Were they successful? Did they need to debug their code? How did you find today's lesson? (Thumbs up, down, middle).