

Year 6 - Lesson 2: Oh Poet

Learning Intention

- I can use a list in a program



Introduction

What new skill did we learn last week? (We used the mouse, to allow a human to control Ohbot and simulate Ohbot's response.) What is this type of Robotics called? ("Wizard of Oz" robotics.) This week we will be learning another new skill, to incorporate a list into a program. What is a list?

Teacher Input 1

First, we are going to learn how to make a list and then how to input items into the list. There are several different ways you can input items into a list. Together we will use a variety of methods to add items to a list. Method one, adds one name at a time using some simple code. First, demonstrate how to create a list using *Data, Make a List*. Remember to add the tick so you can watch the list being created. Together, write a simple program using the code add thing to list.

```
when clicked
  add Ben to boys
  wait 1 secs
  add Dave to boys
  wait 1 secs
  add Sam to boys
  wait 3 secs
  say item random of boys until done
```

Next, demonstrate method two, how to add an item to the list using the *ask* command.

```
when clicked
  repeat 4
    ask Type a girls name to add to the list. and wait
    add answer to Girls names
    say answer until done
    wait 1 secs
  say item random of Girls names until done
```

Activity

1. Can you write a program that makes Ohbot ask four children to type in their names, adds the names to a list then selects one at random to win a special prize?

```
when clicked
  repeat 4
    ask Enter your name for the chance to win a prize and wait
    add answer to prize names
    say answer until done
    wait 1 secs
  wait 1 secs
  say The winner of the special prize is... until done
  say item random of prize names until done
```

Teacher Input 2

Next, we will learn another way of adding items into a list, it is very simple just type the names in, separated by the pipe symbol |. Check all children can find the pipe | on the keyboard. (bottom left, next to z) This is very useful if you are making multiple lists or very long lists. Now we can create some projects that use a greater number of items in a list. For example, Ohbot can make up a simple poem by randomly generating items in a list. Ask the children to create a list of animals. Next, ask them to create a list of adjectives to describe the animals. With some simple code we can generate a two word poem.

```
boys: John|Peter|Paul|Josh|michael|
Animal: Antelope|Baboon|Chameleon|Dragonfly|Elephant
Adjective: Magnificent|cheeky|graceful|noisy|cute|

when clicked
  repeat 10
    say item random of Adjective until done
    say item random of Animal until done
    wait 0.5 secs
```

Activity 2

Can you write code to make Ohbot say a simple poem by accessing three or more lists? Think of all the word games/word work activities you have completed in busy work/word work/starters.

Teacher Input 3

Next, we will develop our list projects further by adding an *if* command to the code. We are going to create a project called favourite fruit. Ohbot will ask the user what their 3/4 favourite



fruits are and then say the answers out loud in turn. Ohbot can then respond depending on *if* the condition is met e.g. if the list contains apples, say "I love apples too." *else* say "I can't believe apples are not one of your favourite fruits!" Demonstrate how to use hexagonal contains inside the *if*

command. E.g. if fruit contains apple.

Activity 3

Can you write a program to make Ohbot ask for your 3 favourite fruits and then read the list out loud? Followed by an *if* command for Ohbot to respond if its favourite fruit (whatever that might be) appears on the list?

Extension

Can you write a program to make Ohbot react if all three of its three favourite fruits appear in the list? This can be done using two AND operator blocks.

Plenary

Take a look at the children's projects. Were you able to successfully write the code?

