

Lesson 2: PicoH Poet

I can use a list in a program



What is a list?
What are lists
used for?



BBQ SHOPPING LIST

SAUCE/GARNISH

- Burger Relish
- Ketchup
- BBQ Sauce
- Mayonaise
- Salad Dressing

SIDES

- Potato Salad
- Coleslaw
- Chips
- Salad
- Corn On The Cob

EXTRAS

- Burger Buns
- Hot Dog Buns
- Wraps
- Napkins
- Skewers

VEGETARIAN

- Veggie Burgers
- Veggie Sausages
- BBQ Vegetables
- Baked Potato
- Halloumi

MEATS

- Burgers
- Sausages
- Chicken Thighs
- Salmon Fillet
- Chicken Drumsticks

DRINKS

- Juice
- Beer
- Pimms
- Soft Drinks
- Water



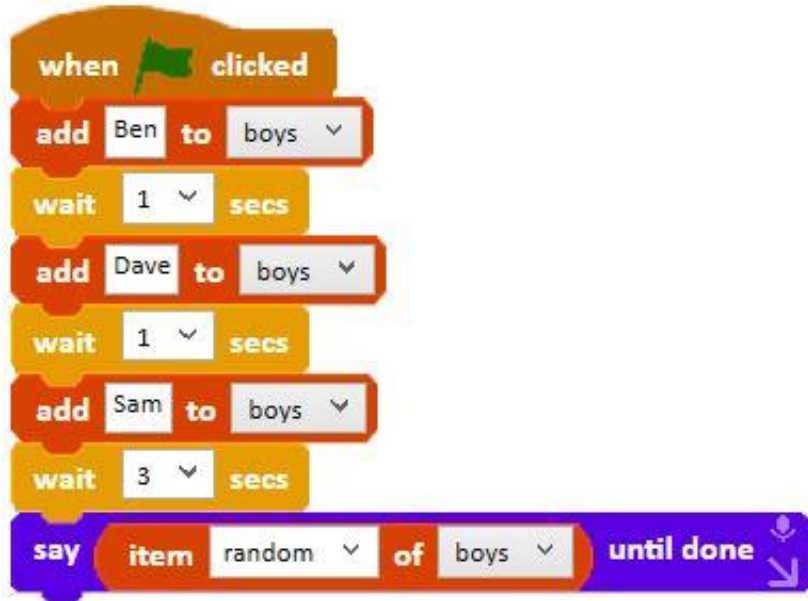
Demonstration

Together we will learn to make a list and add items to the list.

File, Save As – listusingcode



Demonstration: adding items to a list



Demonstration: add items to a list using Ask

Together we will learn to make a list and add items to a list using the ask instruction

File, Save As – listusingask



Demonstration –add an item to a list using Ask



Activity 1

Can you write a program to make PicoH ask the names of four children in the class and then pick one at random to win a special prize? Can you make PicoH announce the winner too?

File, Save As - listprize



Example: Activity 1

```
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
```



Together we will learn another way to enter items in a list.

File, Save As – typing directly into a list



Demonstration

boys: John | Peter | Paul | Josh | Michael |



Demonstration

Together we will write a program to make a two word poem generator

File, Save As – currentdate



Demonstration: two word poem generator

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 a program to make PicoH generate a poem using three or more lists?

File, Save As - listpoetrygenerator



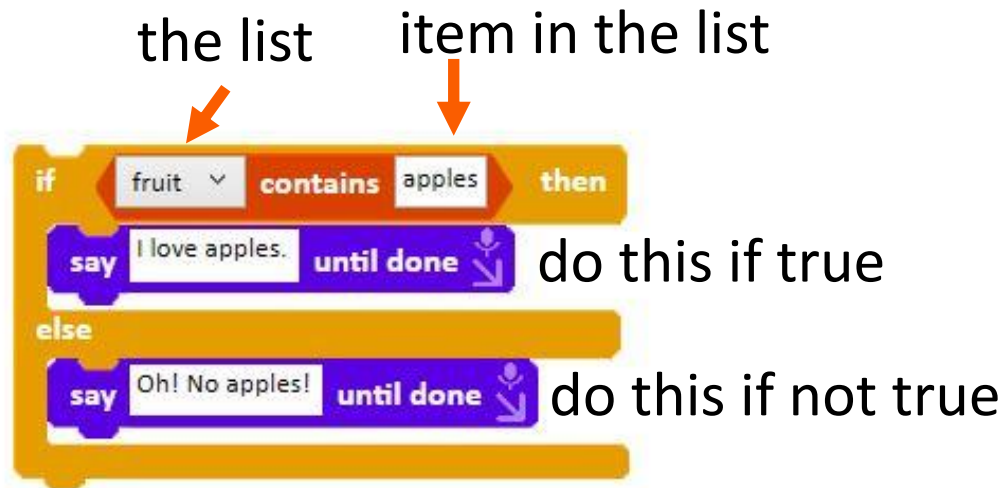
Example: three-list poetry generator

Adverbs: Gracefully | Crazyly | Happily | Excitedly |

Verbs: Jumps | Speaks | Walks | Dances |

Who: Queen | Teacher | Wizard | Farmer |



Demonstration – *If* to check contents of a list

Activity 3

Can you write a program to make PicoH ask for your 3 favourite fruits and then read this list out loud. Can you add an if conditional to make PicoH respond if the list contains a particular type of fruit it likes?



Activity 3 Example

```
when clicked
  delete all of Fruit
  say Can you type in your three favourite fruits one at a time? until done
  repeat 3
    ask and wait
    add answer to Fruit
  say So your Favourite fruits are until done
  say item 1 of Fruit until done
  say item 2 of Fruit until done
  say item 3 of Fruit until done
  if Fruit contains apple then
    say I love apples too! until done
  else
    say I can't believe apples are not in your top 3 fruits! until done
```



Extension

PicoH also has two favourite fruits. Can you alter your code so that PicoH responds only when both fruit it likes appear as items on the list.



Extension Example

```

when clicked
  delete all of Fruit
  say Can you type in your three favourite fruits one at a time? until done
  repeat 3
    ask and wait
    add answer to Fruit
  say So your favourite fruits are until done
  say item 1 of Fruit until done
  say item 2 of Fruit until done
  say item 3 of Fruit until done
  if Fruit contains peach and Fruit contains orange and Fruit contains mango then
    say Wow! Those are my favourites too until done
  else
    say Have you ever considered how delicious peaches, oranges and mangos are? until done
  
```

