

Condition switches between actions
PARSONS USE MODIFY CREATE Page 1



Start Scratch and load
WizardsChoicesParsons

If happy
Say Boo
Else
Say No
condition-switches
-between-actions

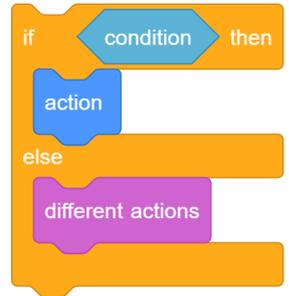
Use the algorithm below to connect the code correctly in Darla

Algorithm

Start when the sprite is clicked
Make the sprites size 100% (initialisation in case it was larger last time it was run)
Say that Darla will grow in power if get question right
Say that Darla will lose power if get answer wrong
Ask $3 \times 3 = ?$
If answer is same as 9
 Increase size by 20%
Else
 Decrease size by -20%
Ask $25 + 76 = ?$
If answer is same as 101
 Increase size by 20%
Else
 Decrease size by -20%
Ask $85 - 30 = ?$
If answer is same as 55
 Increase size by 20%
Else
 Decrease size by -20%
Pause for 2 seconds
If size is same as 160%
 Say you got them all right
 Say My powers grow
Else
 Say better luck next time

Now mark the **PARSONS** code using the answer 

Name



condition-switches-between-actions

USE (Run the programs lots of times but don't change the code)

Run the code inside **Darla** and answer these questions.

1, How many **condition-switches-between-actions** blocks are there?

2, If you answer the questions correctly what will happen?

3, If you answer the questions incorrectly what will happen?

4, Look at the last **condition-switches-between-action** block. What do you need to do in the rest of the program to make sure than the size is = (the same as) 160% after the last question?

Run the code inside **Gustav** and answer these questions.

5, How many **condition-switches-between-actions** blocks are there?



6, How many **count-controlled-loops** are there?

7, Which block is there for initialisation purposes? Initialisation is to make sure the program always runs in the same way every time, clearing away the effects of previous program changes.

Run the code inside **Maurice** and answer these questions.

8, How many **condition-switches-between-actions** blocks are there?



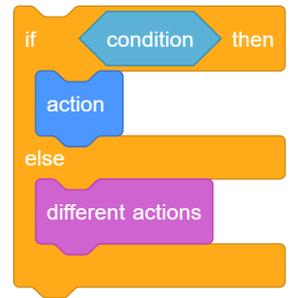
9, What happens if you input something other than yes on the first question?

10, How long is Maurice hidden for before reappearing?



Now mark the **USE** questions using the answer sheep

Name



Modify Code in Darla (Make small changes or small additions to the code)



condition-switches-between-actions

- 1, Adapt the code to make Darla grow even bigger when the user gets an answer correct. What did you change?
- 2, Adapt the code to make Darla grow even smaller when the user gets an answer wrong. What did you change?
- 3, Add an additional effect to question one if someone gets the answer right? What did you add? Where did you add it?

Modify Code in Gustav (Make small changes or small additions to the code)



4, Modify the code to make Gustav whirl quicker if the answer is wrong. What did you change?

5, Slow down Gustav's whirl. What did you change?

6, Can you make Gustav whirl counter clockwise? What did you change?

7, Change Gustav's whirl for a different graphical effect? What did you change it to? Did it work as well?



Modify Code in Maurice (Make small changes or small additions to the code)

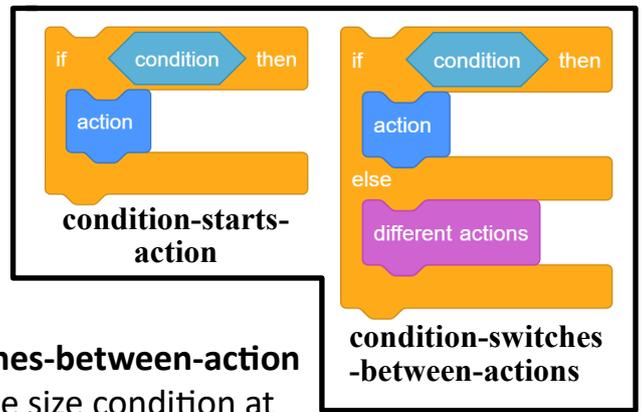
8, Modify the code to make Maurice spin round slowly after he says the magic words but before he disappears. What did you add? Where did you add it?

9, Modify the last question so that only magic users who answer no are made magical. What did you change? Where did you change it?

Now mark the modify questions using the answer sheep



Name



Create easier choices (Choose one or more of these ideas first)

1, Add another question that uses **condition-switches-between-action** to the maths quiz in Darla. Make sure you adjust the size condition at the end to cope with four rather than three questions.

2, Add the question that uses **condition-switches-between-action** to the Maths quiz in Gustav. Make sure it does totally new things if the answer is right and wrong.

3, Add another question to Maurice that uses **condition-switches-between-action** before the user become magical.

Create harder choices (Choose one or more of these ideas second)

1, Create your own quiz about a recently studied school topic that uses **condition-switches-between-action** . Either choose a new sprite or start a new program.

2, Create your own quiz about a topic that you know a lot about. Use **condition-switches-between-action** and **condition-starts-action** blocks . Either choose a new sprite or start a new program.

3, Create a maths quiz where you get harder questions if you get the answer right and easier questions if you get the answer wrong. Either choose a new sprite or start a new program.

Use the space below to plan your harder choice creations

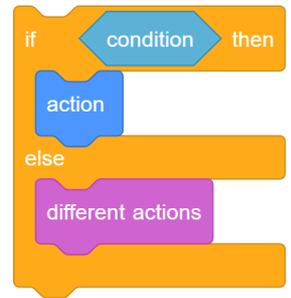
My idea

My design (questions, initialisation, algorithm)

Name

Condition switches between actions

PARSONS ANSWERS



condition-switches-between-actions

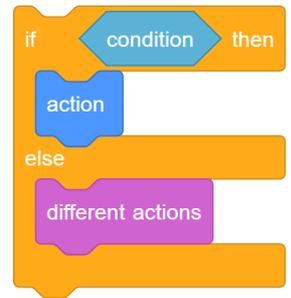
```
when this sprite clicked
  set size to 100 %
  say If you get the question right Darla will grow in power! for 2 secs
  say If you get the question wrong Darla will shrink in power! for 2 secs
  ask 3x3=? and wait
  if answer = 9 then
    change size by 20
  else
    change size by -20
  ask 25+76=? and wait
  if answer = 101 then
    change size by 20
  else
    change size by -20
  ask 85-30=? and wait
  if answer = 55 then
    change size by 20
  else
    change size by -20
  wait 2 secs
  if size = 160 then
    say You got them all right. for 2 secs
    say My powers GROW! for 2 secs
  else
    say Better luck next time! for 2 secs
```

```
when this sprite clicked
  set size to 100 %
  say If you get the question right Darla will grow in power! for 2 seconds
  say If you get the question wrong Darla will shrink in power! for 2 seconds
  ask 3x3=? and wait
  if answer = 9 then
    change size by 20
  else
    change size by -20
  ask 25+76=? and wait
  if answer = 101 then
    change size by 20
  else
    change size by -20
  ask 85-30=? and wait
  if answer = 55 then
    change size by 20
  else
    change size by -20
  wait 2 seconds
  if size = 160 then
    say You got them all right. for 2 seconds
    say My powers GROW! for 2 seconds
  else
    say Better luck next time! for 2 seconds
```

Condition switches between actions

USE ANSWERS

USE ANSWERS



condition-switches-between-actions

Run the code inside **Darla** and answer these questions.

1, How many **condition-switches-between-actions** blocks are there?

4 (1 mark)

2, If you answer the questions correctly what will happen?

Darla get larger by 20% (1 mark for any answer which refers to an increase in size)

3, If you answer the questions incorrectly what will happen?

Darla get smaller by 20% (1 mark for any answer which refers to a decrease in size)

4, Look at the last **condition-switches-between-action** block. What do you need to do in the rest of the program to make sure than the size is = (the same as) 160% after the last question?

Get all the questions correct (1 mark)

Run the code inside **Gustav** and answer these questions.

5, How many **condition-switches-between-actions** blocks are there?

3 (1 mark)

6, How many **count-controlled-loops** are there?

3 (1 mark)

7, Which block is there for initialisation purposes? Initialisation is to make sure the program always runs in the same way every time, clearing away the effects of previous program changes.

Clear graphics effects (1 mark)

Run the code inside **Maurice** and answer these questions.

8, How many **condition-switches-between-actions** blocks are there?

3 (1 mark)

9, What happens if you input something other than yes on the first question?

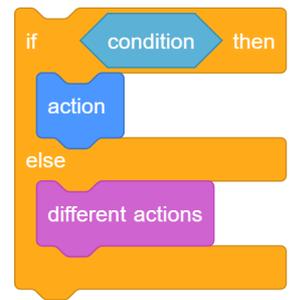
Wizard says nothing left for it I will just have to vanish. (1 mark)

10, How long is Maurice hidden for before reappearing?

3 seconds (1 mark)

Condition switches between actions

MODIFY ANSWERS



**condition-switches
-between-actions**

Modify Code in Darla (Make small changes or small additions to the code)

1, Adapt the code to make Darla grow even bigger when the user gets an answer correct. What did you change?

Change size by more than 20 (1 mark)

2, Adapt the code to make Darla grow even smaller when the user gets an answer wrong. What did you change?

Change size by less than -20 (1 mark)

3, Add an additional effect to question one if someone gets the answer right? What did you add? Where did you add it?

Lots of possibilities (1 mark for any that work) Added between then and else (1 mark)

Modify Code in Gustav (Make small changes or small additions to the code)

4, Modify the code to make Gustav whirl quicker if the answer is wrong. What did you change?

Either wait reduced to less than 0.2 secs or change whirl effect by more than 2 or both (1 mark)

5, Slow down Gustav's whirl. What did you change?

Either wait increased to more than 0.2 secs or change whirl effect by less than 2 or both (1 mark)

6, Can you make Gustav whirl counter clockwise? What did you change?

Change whirl effect by -2 or another negative number (1 mark)

7, Change Gustav's whirl for a different graphical effect? What did you change it to? Did it work as well?

Change to colour, pixelate, whirl, fisheye, brightness, mosaic or ghost (1 mark)

Modify Code in Maurice (Make small changes or small additions to the code)

8, Modify the code to make Maurice spin round slowly after he says the magic words but before he disappears. What did you add? Where did you add it?

Add a count controlled loop with a turn right or turn left a number of degrees block inside. (1 mark)

9, Modify the last question so that only magic users who answer no are made magical. What did you change? Where did you change it?

Change to answer = no and change the else response from Fancy turning down such a great responsibility to something else. (1 mark for each change, total 2 marks)