Dog Chase
PRIMM Page 1 PREDICT

Direction finder

Count controlled loops

```
when 🚩 clicked
go to x: -204 y: -112
✏ erase all
✏ pen down
point in direction 0
say  Where is my dog?  for 2 seconds
say  I will leave a trail behind  for 2 seconds
say  so I can find my way home.  for 2 seconds
✏ set pen color to 🟠
repeat 250
   move 1 steps
say  Here boy!  for 2 seconds
point in direction 90
✏ set pen color to 🔴
repeat 160
   move 1 steps
```
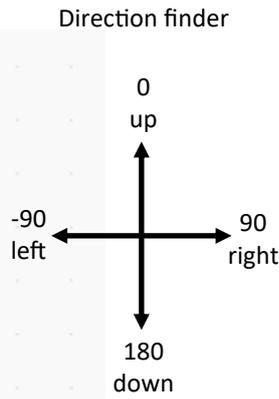
```
        0
       up

-90              90
left            right

      180
      down
```

Name

Read the code on the left really carefully. The girl is looking for her dog. Use the steps and the direction finder to help you understand what will happen.

480 steps

320 steps
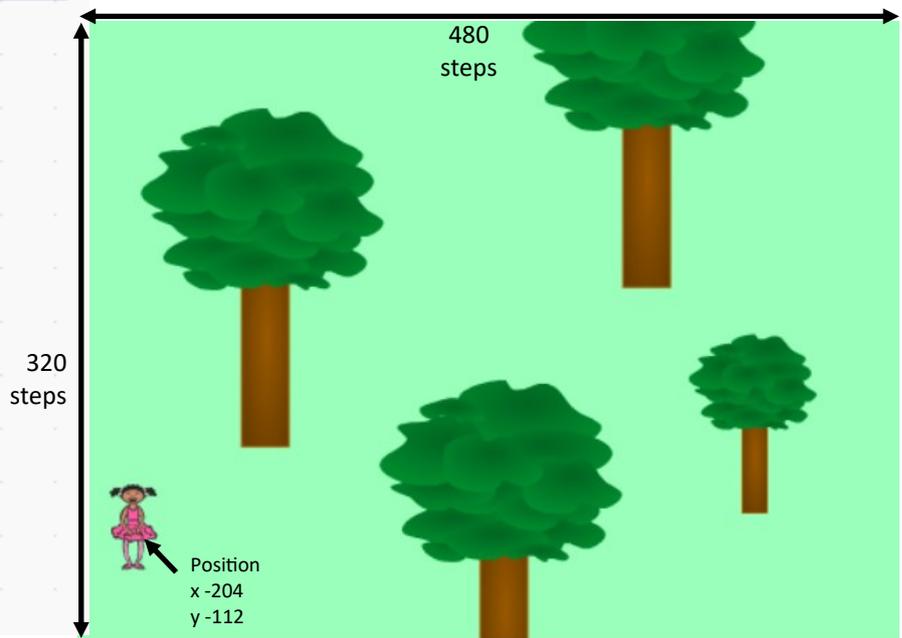
Position
x -204
y -112

1, What is the first thing she will say?

2, She says she will leave a trail behind. What code blocks will make that happen?

3, Which code block sends her to the start position? (initialisation)

4, Which letter have the Americans missed out of their spelling of colour?

5, Name the two count controlled loops

6, What does she say after walking for 250 steps?

7, Draw on the picture with a ruler and pencil where you think the code takes her.

Now mark your work using the answer sheep

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Dog Chase
PRIMM Page 2 RUN & INVESTIGATE
Start Scratch and load
dogchase

Count controlled loops

INVESTIGATE (Run the code and answer the questions. Don't make any changes)
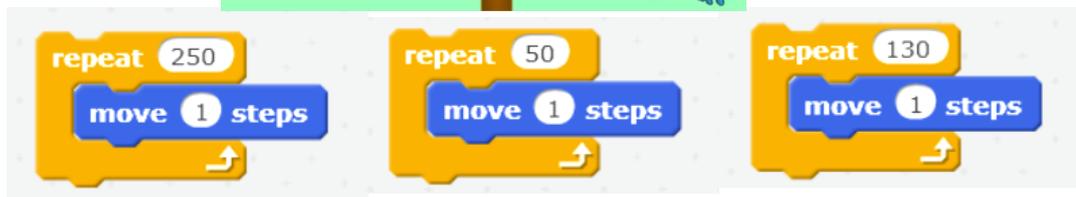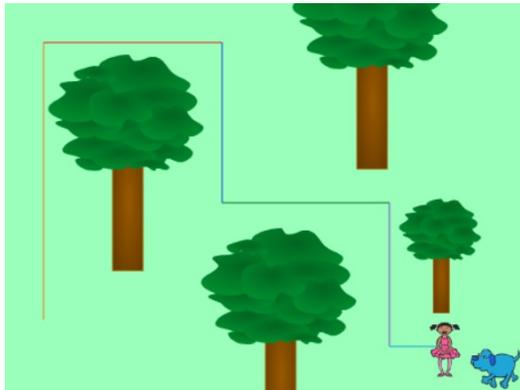Look at the code inside the Girl
Girl Sprite Questions
1, Which block starts the code?

2, What is the first thing the girl says?

3, How many count controlled loops are there?

Count controlled loop

repeat 3

4, How many times will the first **move 1 step** code block be run when the program has started? *HINT What is it inside?*

5, What is the smallest count controlled loop?

6, Each loop draws a line. Draw a line to connect the loop to its coloured line.

7, Which block changes
the girls direction?

repeat 250
move 1 steps

repeat 50
move 1 steps

repeat 130
move 1 steps

Look at the code inside the Dog
Dog Sprite Questions
8, Why does the dog wait until the Girl arrives?

9, Which blocks get repeated 20 times?

Now mark your **USE** work using the answer sheep

Name

Dog Chase
PRIMM Page 3 MODIFY
Start Scratch and load
dogchase

Count controlled loops

MODIFY Questions (Run the code and make changes)
1, Can you make the Girl say something different when she finally finds the dog?
What did you change?

2, Can you make the Girl bump into the dog at the end?
What did you change?

3, Can you make the dog say something after the girl bumps into him?
What code did you add? HINT Wait until touching.....

4, Can you make the dog go twice as fast but still only go the same distance?
What did you change? HINT You will need to make two changes

Now mark your **USE** work using the answer sheep

Name

Count controlled loops

MAKE INSIDE (Choose one or more of these to make)

1, Design and program your own route through the trees for the girl to take. Keep the code and modify it. Draw your new route on the picture below.

2, Add another character to the woods that the girl meets. Program the character to do or say something when the girl touches them.

3, Program the large tree to say or do something when the girl touches it.

4, Draw a spider sprite that drops out of a tree using the pen command as its web. Drag the sprite to its start position and drag out a go to x and y block so the spider always starts in the same position (initialisation).

CREATE NEW (Do this if you have time or make it at home)

Design and make your own moving animation using count controlled loops. Draw a picture below to help you plan it.
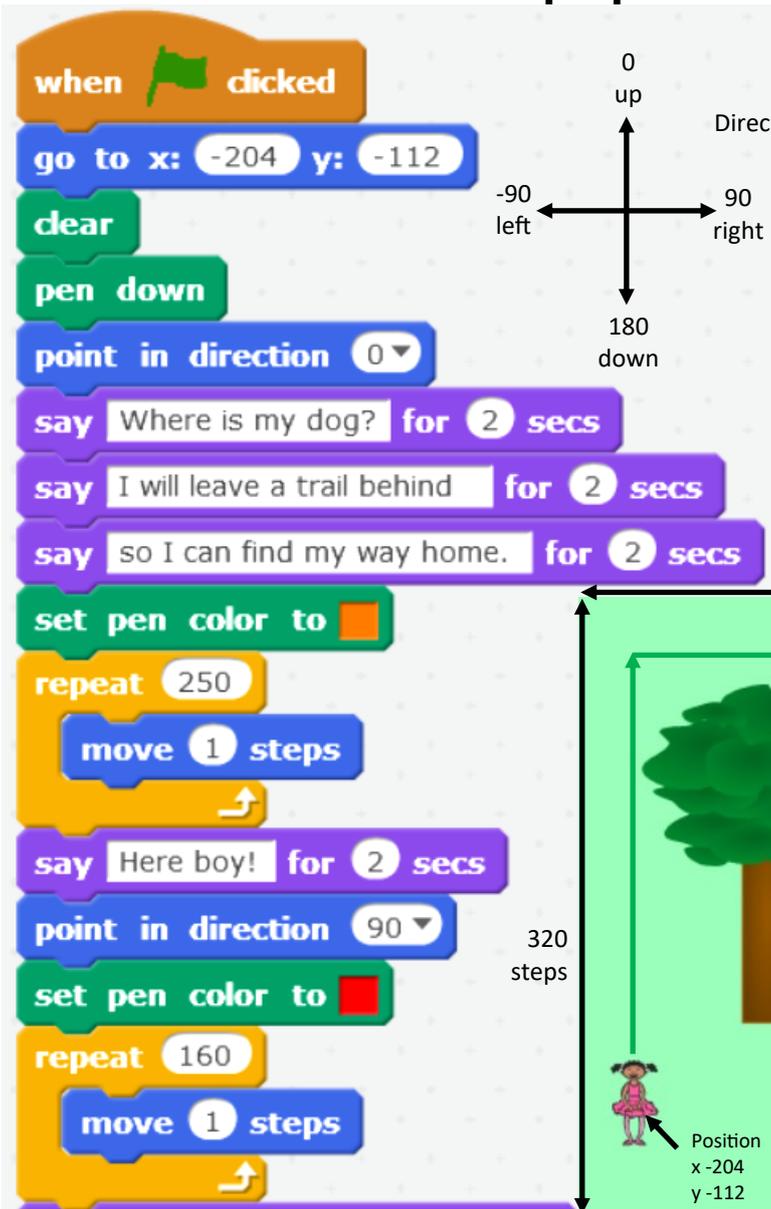
| My idea	My design

Name

Dog Chase
PRIMM Page 1 PREDICT ANSWER Sheep

```
when [flag] clicked
go to x: -204 y: -112
clear
pen down
point in direction 0 ▾
say Where is my dog? for 2 secs
say I will leave a trail behind for 2 secs
say so I can find my way home. for 2 secs
set pen color to [orange]
repeat 250
    move 1 steps
say Here boy! for 2 secs
point in direction 90 ▾
set pen color to [red]
repeat 160
    move 1 steps
```
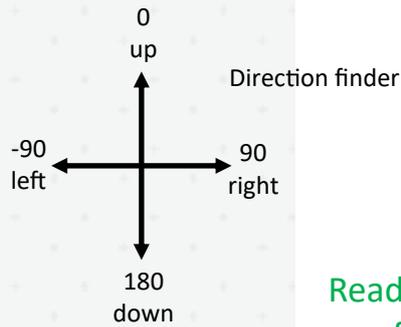
Direction finder

```
        0
        up
        ↑
-90 ←———+———→ 90
left             right
        ↓
       180
      down
```

Read the code on the left really carefully. The girl is looking for her dog. Use the steps and the direction finder to help you understand what will happen.

480 steps

320 steps

Position
x -204
y -112
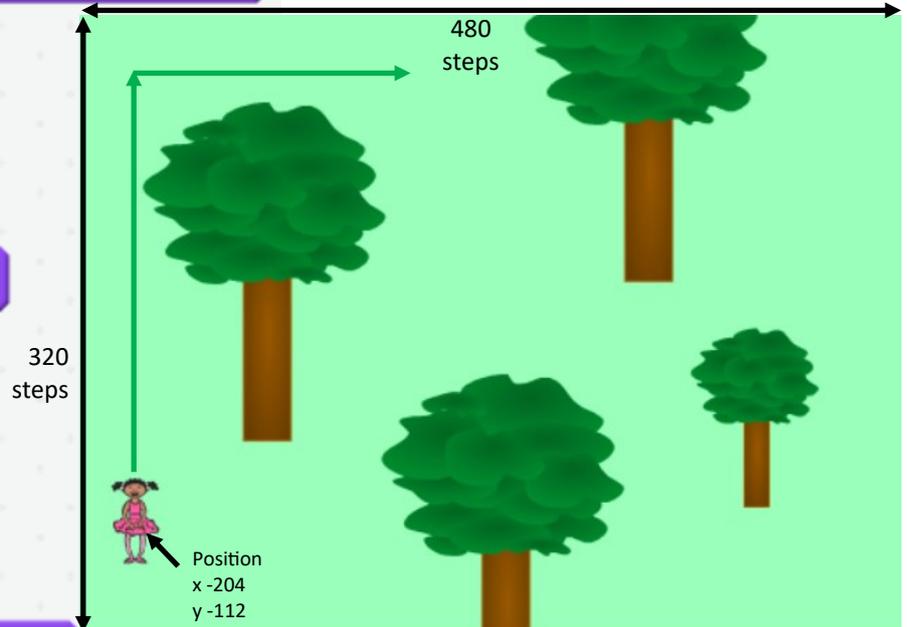
1, What is the first thing she will say?
Where is my dog? (1 mark)
2, She says she will leave a trail behind. What code blocks will make that happen?
Pen down, set pen colour to, optionally clear remove lines from last program
(1 mark for first two)
3, Which code block sends her to the start position? (initialisation)
go to x –204 y –112 (1 mark)
4, Which letter have the Americans missed out of their spelling of colour?
U (1 mark)
5, Name the two count controlled loops
Repeat 250, repeat 160 (1 mark for naming both)
6, What does she say after walking for 250 steps?
Here boy! (1 mark)
7, Draw on the picture with a ruler and pencil where you think the code takes her.
(1 mark for each line is roughly same place)

INVESTIGATE (Run the code and answer the questions. Don't make any changes)

Look at the code inside the Girl

Girl Sprite Questions

1, Which block starts the code?

When green flag clicked (1 mark)

2, What is the first thing the girl says?

Where is my dog? (1 mark)

3, How many count controlled loops are there?

6 (they are called repeat loops in Scratch) (1 mark)

4, How many times will the first **move 1 step** code block be run when the program has started? HINT What is it inside?

250 as it is inside a loop (1 mark)

5, What is the smallest count controlled loop?

Repeat 50 (1 mark)

6, Each loop draws a line. Draw a line to connect the loop to its line.

7, Which block changes the girls direction?

Point in direction (1 mark)

1 mark for each correct arrow (max 3 marks)

Dog Sprite Questions

8, Why does the dog wait until the Girl arrives?

Wait until touching girl (1 mark)

9, Which blocks get repeated 20 times?

Next costume & wait 0.3 secs (1 mark for both max 2 marks)

MODIFY Questions (Run the code and make changes)
1, Can you make the Girl say something different when she finally finds the dog?
What did you change?
Change say there you are to something else (1 mark)

2, Can you make the Girl bump into the dog at the end?
What did you change?
Change repeat 50 loop to a higher number (1 mark)

3, Can you make the dog say something after the girl bumps into him?
What code did you add? HINT Wait until touching…..
Add a wait until touching dog section and then a say command after this (1 mark)

4, Can you make the dog go twice as fast but still only go the same distance?
What did you change?
Change repeat 130 to repeat 65 and increase move 2 steps to move 4 steps (1 mark)
Change repeat 120 to repeat 60 and increase move 1 steps to move 2 steps (1 mark)
(other correct answers are available)