Helicopter Game
VIEW DESIGN USE MODIFY CREATE Page 1

Work with a partner of same ability

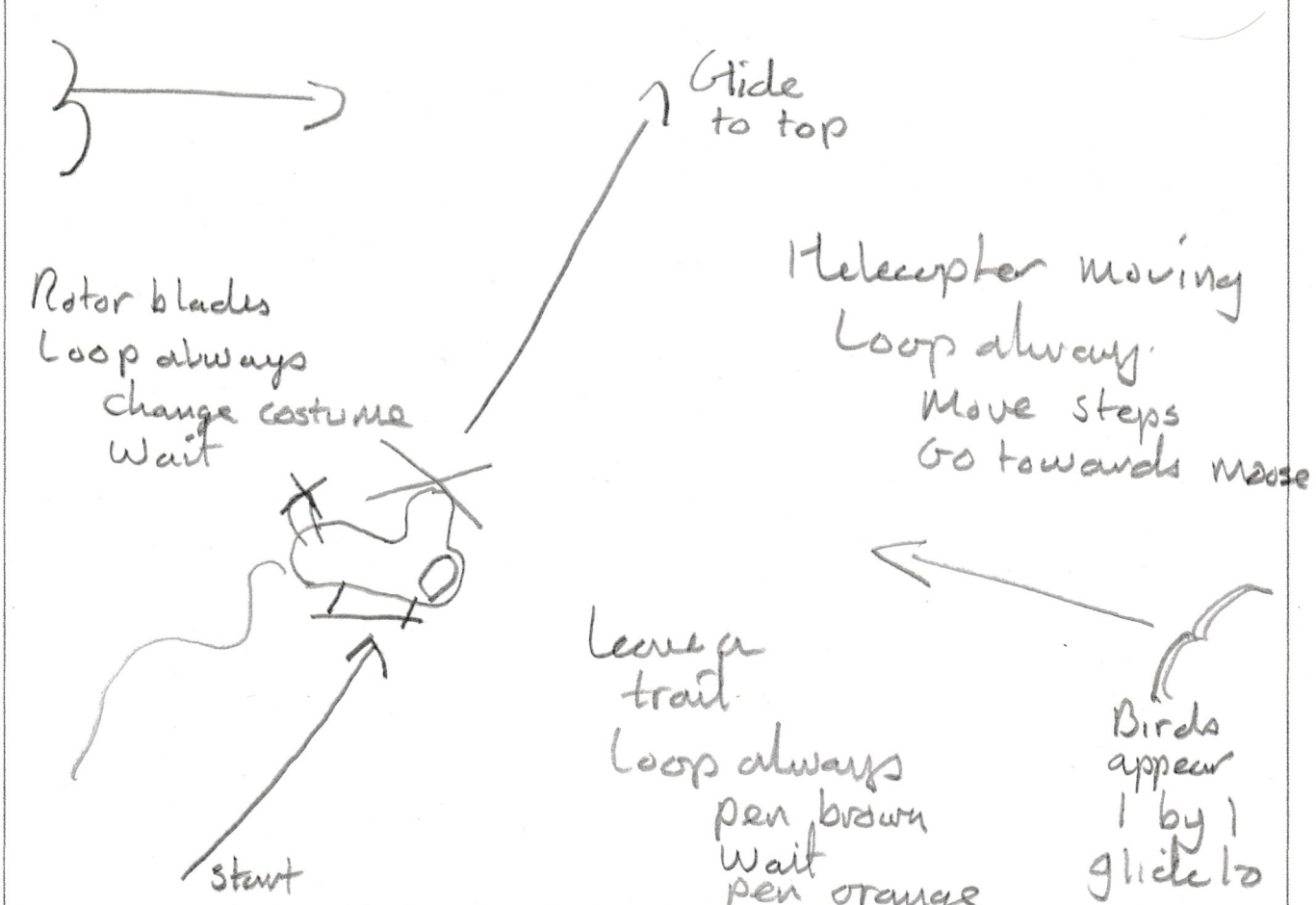
Don't load Scratch

Continous Loops Focus

DESIGN Checkout the design for this game. Then answer the questions below.

Idea Level *My game will...* Helecopter game where helicopter tries to escape from birds.

Design Level (Draw your game simply, What characters will you use?, What will they do?)



Annotate your design with algorithms to show how you will use loops.

Initialisation Jot down how your game will always start in the same place

x+ y for helicopter + birds Clear lines to remove trail.

DESIGN Questions

Circle all the continuous loop algorithms you can see.

Underline design initialisation (starting places or clearing effects)

Now go onto the next page

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Helicopter Game
VIEW DESIGN USE MODIFY CREATE Page 2

Continous Loops Focus

Start Scratch and load helicopter

Play the helicopter game a few times.

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

Look at the code inside the helicopter

Helicopter Sprite Questions

1, What x and y position does the helicopter start at?

2, What x and y position does the helicopter glide to 3 seconds after the game has started?

3, How long does it take before the light and dark grey trail starts to show in the game?

4, Which helicopter costume is not used? Why is it not used? (HINT Look inside costume)

Look at the code inside Parrot 1

Parrot 1 Sprite Questions

1, How long is Parrot 1 hidden for once the game starts?

2, Which two backdrops are only run once the parrot touches a helicopter?

3, How long is there between each beat of the parrots wings?

4, What does the parrot do once it touches the edge of the screen? What code block instructs it to do that?

Now mark your **design** and **use** questions using the answer sheep

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Helicopter Game
VIEW DESIGN USE MODIFY CREATE Page 3

Continous Loops Focus

MODIFY (Run the code and make small changes)

Helicopter Sprite Questions
1, Can you make the rotor on the helicopter run slower? What did you change?

2, Can you make the helicopter move faster? What did you change?

3, Can you make the smoke trail change colour quicker? What did you change?

4, Can you make the smoke trail wider? What did you change?

5, Can you make the smoke trail start earlier? What did you change?

Parrot 1 Sprite Questions
1, Can you make the parrot move faster? What did you change?

2, Can you make the wings flap faster? What did you change?

4, Which three blocks are initialisation? Return the sprite and background back to their starting positions?

MODIFY More (Make larger changes such as adding blocks)
Any Sprite Questions
1, Modify the code in helicopter so that it goes to the mouse-pointer rather than just moving slowly towards it. (HINT You will need to replace a block)

2, Add another faster parrot that arrives after 35 seconds from the bottom right. You can duplicate Parrot 4 as a starting point.

Now mark this page using the answer sheep

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Helicopter Game
VIEW DESIGN USE MODIFY CREATE Page 4
You can share design ideas but must plan and code separately

Continous Loops Focus

DESIGN & CREATE
Design and code your own game that uses loops. You can adapt any ideas from the helicopter game.

Idea Level *My game will...*

Design Level (Draw your game simply, What characters will you use?, What will they do?)

Annotate your design with algorithms to show how you will use loops.

Initialisation Jot down how your game will always start in the same place

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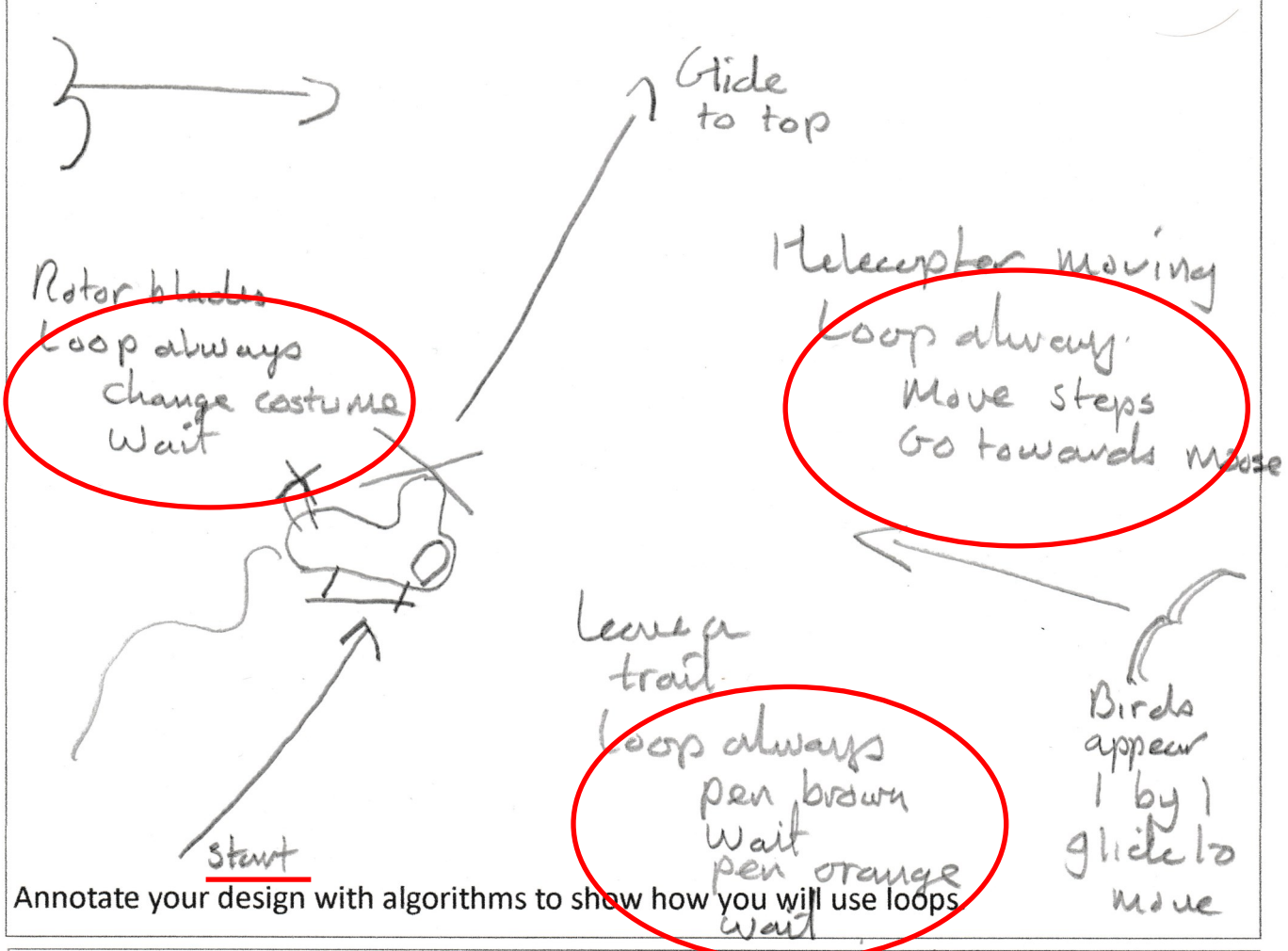
Helicopter Game
VIEW DESIGN Answers

Continous Loops Focus

DESIGN Checkout the design for this game. Then answer the questions below.

Idea Level *My game will...* Helecopter game where helicopter tries to escape from birds.

Design Level (Draw your game simply, What characters will you use?, What will they do?)



Annotate your design with algorithms to show how you will use loops.

Initialisation Jot down how your game will always start in the same place

x+ y for helicopter + birds

Clear lines to remove trail.

DESIGN Questions

Circle all the continuous loop algorithms you can see. (3 marks 1 per loop circled)

Underline design initialisation (3 marks 1 per underline in correct place)

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Helicopter Game

USE Answer Sheep

USE Answers

Look at the code inside the helicopter

Helicopter Sprite Questions

1, What x and y position does the helicopter start at?

X –159 y –131 (1 mark)

2, What x and y position does the helicopter glide to 3 seconds after the game has started?

X –74 y 113 (1 mark)

3, How long does it take before the light and dark grey trail starts to show in the game?

3 seconds (1 mark)

4, Which helicopter costume is not used? Why is it not used?

Helicopter, it has no rotors (1 mark)

Look at the code inside Parrot 1

Parrot 1 Sprite Questions

1, How long is parrot 1 hidden for once the game starts?

5 seconds (1 mark)

2, Which two backdrops are only run once the parrot touches a helicopter?

Boom and xy-grid (1 mark if both are mentioned)

3, How long is there between each beat of the parrots wings?

0.5 seconds or half a second (1 mark)

4, What does the parrot do once it touches the edge of the screen? What code block instructs it to do that?

Bounces of the edge of the screen, if on edge, bounce (1 mark)

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Helicopter Game

MODIFY Answer Sheep

Modify (Run the code and make small changes)

Helicopter Sprite Questions

1, Can you make the rotor on the helicopter run slower? What did you change?
Increase the wait time of all three blocks above 0.1 seconds. (1 mark)
2, Can you make the helicopter move faster? What did you change?
Increase move to more than 1 step (1 mark)
3, Can you make the smoke trail change colour quicker? What did you change?
Reduce wait 1 second to less than 1 second (1 mark)
4, Can you make the smoke trail wider? What did you change?
Set pen size to greater than 3 (1 mark)
5, Can you make the smoke trail start earlier? What did you change?
Reduce wait 3 seconds to less than 3 or remove the block. (1 mark)

Parrot 1 Sprite Questions

1, Can you make the parrot move faster? What did you change?
Change 0.7 steps to a higher number (1 mark)
2, Can you make the wings flap faster? What did you change?
Change wait 0.5 to a smaller decimal fraction (1 mark)
4, Which three blocks are initialisation? Return the sprite and background back to their starting positions?
go to x and y, point in direction, Switch backdrop to clear (1 mark for two or more of these)

Modify More (Make larger changes such as adding blocks)

Any Sprite Questions

1, Modify the code in helicopter so that it goes to the mouse-pointer rather than just moving slowly towards it.
Add go to mouse pointer inside the forever loop (1 mark)
2, Add another faster parrot that arrives after 35 seconds from the bottom right. You can duplicate Parrot 4 as a starting point.
Duplicate the parrot (1 mark)
Change hide, wait 35, show (1 mark)
Change go to x and y to start from bottom right (1 mark)

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