

CURRICULUM OUTLINE RAPID ROUTER

A Guide for Rapid Router



RAPID ROUTER



UNIT 1

GETTING STARTED

- Can you help the van get to the house?
- > This time the house is further away
- Can you make the van turn right?
- You are getting good at this! Let's try turning left
- Good work! You are ready for something harder
- > Well done! Let's use all three blocks
- > This road is more complicated
- The warehouse is not always in the same place
- Can you go from right to left?
- > Well done! How about another go?
- ➤ Snail maze!

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- > This road is more complicated
- Random: Try your hand at a random level.

UNIT 3

LOOPS AND REPETITIONS

- Repeating yourself is boring
- Use the Repeat block to make your sequence shorter and simpler
- ➤ Four leaf clover
- Now things are getting quite long and complicated
- Ssssssssnake!
- The road is very long and very bendy
- > Waterfall level
- Winter wonderland!
- ➤ Farmyard
- > The big city
- Random: Try your hand at a random level.

UNIT 2

SHORTEST ROUTE

Can you spot the shortest route?

What if there is more than one

This time there are even more

UNIT 4

LOOPS WITH CONDITIONS

- No need for numbers
 - Can you do that again?
 - > Practice makes perfect
 - ➤ Uh oh, it's Until fever!
 - Random: Try your hand at a random level.

houses➤ House overload!

deliverv?

Multiple routes

- > This one is quite a tangle
- Random: Try your hand at a random level.



UNIT 1	IF ONLY	UNIT 3	LIMITED BLOCKS
	 Now it's time to try the If block Multiple Ifs Let's put it all together! What else? If-else, that's what! A bit longer Third time lucky! Dead ends! Adjust your previous solution Decision time What do you think this time? Good work! What else can you do? Random: Try your hand at a random level. 		 Back to basics with a twist A Bit more Tricky Choose your blocks wisely Round and Round Wonky Fish! Concrete Wasteland This is not the same Snow snake Tricky turnaround Right around the block
UNIT 2	TRAFFIC LIGHTS	UNIT 4	PROCEDURES
	 Oh no! Traffic lights! Green for go, red for wait Well done - you've made it really far! What a mess! But can you spot a route? Put all that hard work to the test Amazing! Have another go! Light maze Random: Try your hand at a random level. 		 Can you create the 'Wiggle' procedure? Lots of Traffic Lights! Wiggle Wiggle Muddy Patterns with Phil Complicated roads Dee's snowy walk Crazy Farm



UNIT 1

BLOCKLY BRAIN TEASERS

- > T time
- Duck pond dodgeWinter wonderland
- ➤ Frozen challenge
- > Can Wes Find his lunch?
- \succ Traffic light freeze up!
- > Pandemonium
- ➤ Kirsty's maze time
- ➤ Cannot turn left!
- ➤ G Force
- ➤ Wandering Phil
- > Muddy Mayhem



INTRODUCTION TO PYTHON

- UNIT 1
- > Here's Python!
- Matching Blockly
- > Don't forget to find the shortest route
- > Repeating yourself in Python looks different
- ➤ Repeat and watch
- > Looks easy but use repeat until and see what happens?
- See what the if blocks looks like in Python
- > Don't forget to use else if
- See what happens when you add Traffic lights
- > Watch carefully as you have another go
- > Have a go at procedures what do they look like in Python?
- > Put it all together

UNIT 2

TRAFFIC LIGHTS

- Start with the basics, forward, left and right
- ➤ Keep it simple
- Take the shortest route
- Count and repeat
- Count and repeat is easy
- Loop the loop
- Repeat and check
- ➤ Find a general solution
- > Watch out for the dead end!
- > Function or Junction?
- > Watch for the patterns
- > Patterns within patterns
- > Can you see the repeating pattern?
- > Find the shortest route
- Spiral and add
- Spiral and double
- > Think less
- Final challenge!