

Lower Key Stage 2 Session 2

Using repeat with a condition on a simple route: repeat until



- Understand how to use a conditional repeat — **repeat until at destination**

Resources

- Levels 29 to 32 in Rapid Router
- Resource sheets LKS2-S2-1 to LKS2-S2-2
- Video 2
- Interactive Whiteboard (IWB)

Vocabulary

- Repeat until

Let's get started

Introduce level 29 [fig S2.1] of the app on the IWB.

Ask the children what they think **repeat until** will do. Point out the **at destination** block.

Ask a volunteer to test this out with a simple route.

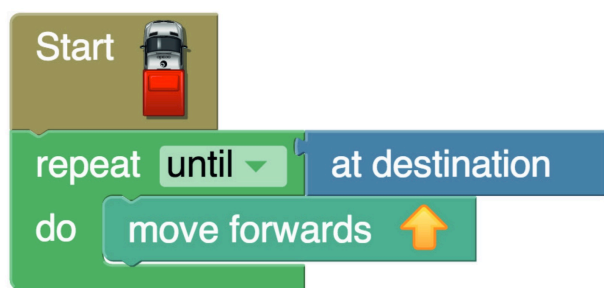


fig S2.1

Do this again with a simple repetition of **turn left** and **turn right**.



Look at **Video 2** to see Ana talking about her work and how **repeat until** is useful.

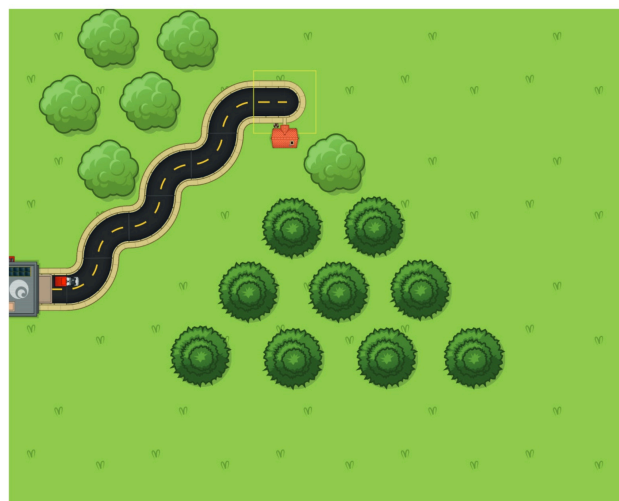


fig S2.2

Mini review

Ask the children to discuss with a partner the difference between using **repeat until at destination**

Set out two straight 'roads' in the classroom (you can do this with masking tape, construction blocks or even by creating a route with the classroom tables) and ask two children to be van drivers at the start of each. Ask them to 'act out' the code.

Will they both get to their destinations even if one route is longer? Why?



fig S2.3

Practical

Children try out the other challenges at levels 29 to 32 [fig S2.2].

Share and review

Share what has been learnt in this lesson.

Can you draw two routes where repeat until at destination (forward, left, right) would work using LKS2-S2-1? [fig S2.3].

Children discuss the unplugged activity in pairs.



fig S2.4

Choose a pair to add the **repeat until at destination** blocks of code to your code wall, and add labels to explain what they do.

Can you think of some activities which we do in the classroom, where we use **repeat until?**

For example:

- Filling a large container with smaller beakers of water — '**repeat until** container is full';
- Playing percussion to a music track — '**repeat until** the song is finished (tap the drum, wait 1 second)'.

Further consolidation

Use resource sheet LKS2-S2-2 [*fig S2.4*] for children to create their own **repeat until** loops.