

## Lower Key Stage 2 - Session 2

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



## Objectives

- 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 forward 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.

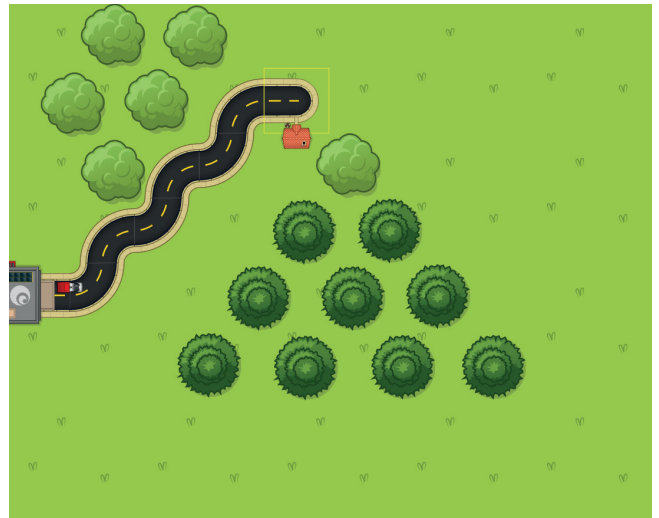


fig S2.2

## Mini review

Ask the children to discuss with a partner the difference between using **repeat until at destination**, instead of **repeat** a number of times.

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?**

## 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].

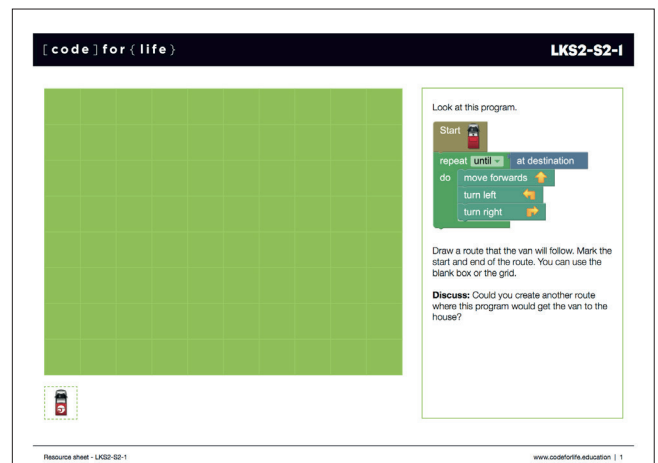


fig S2.3

Children discuss the unplugged activity in pairs.

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.

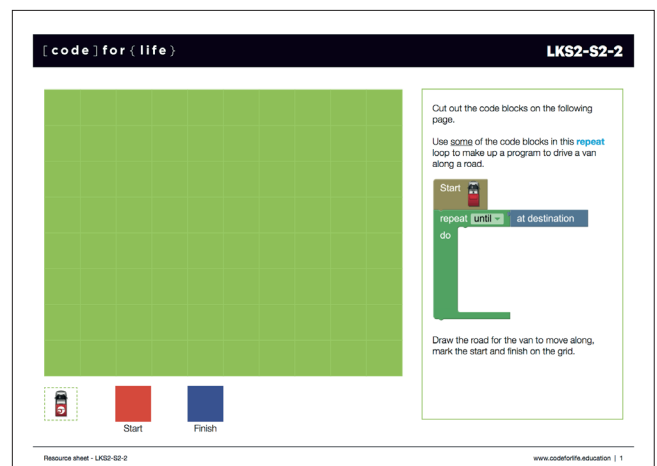


fig S2.4