HOPSCOTCH

LESSON TWO

Loops

Loops

Sometimes we need to repeat blocks code. We call these loops!

You probably use **loops** a lot in real life:

When you put on your shoes, **you repeat the same process twice for each shoe**:

Grab shoe, put foot in shoe, tie shoe.
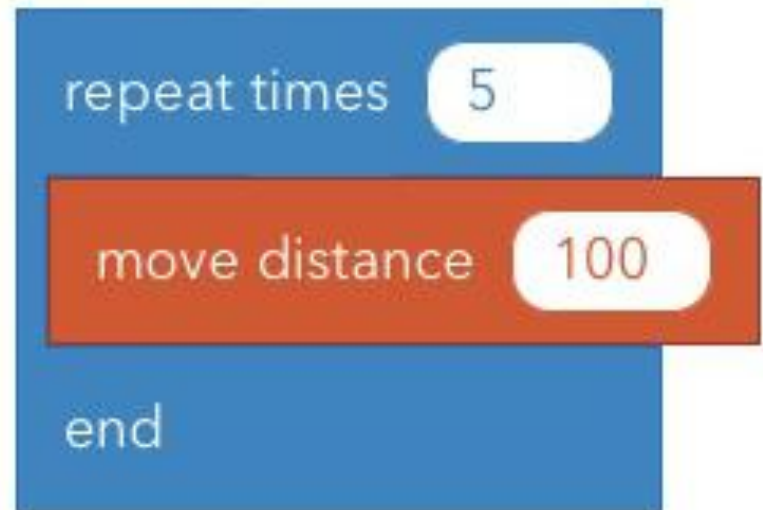
Or while eating ice cream

Until all the ice cream is gone, **repeat**:

Put spoon in bowl,
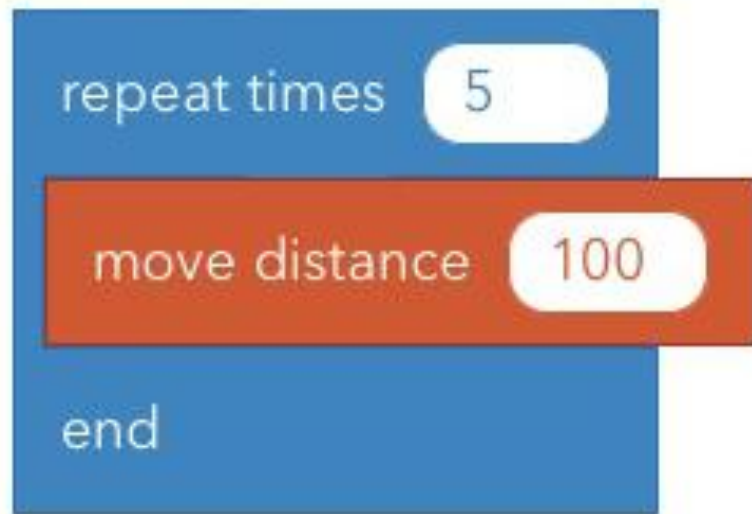scoop ice cream,
lift spoon to mouth,
eat!

Hopscotch has loops: they let you run a block of code a certain amount of times.
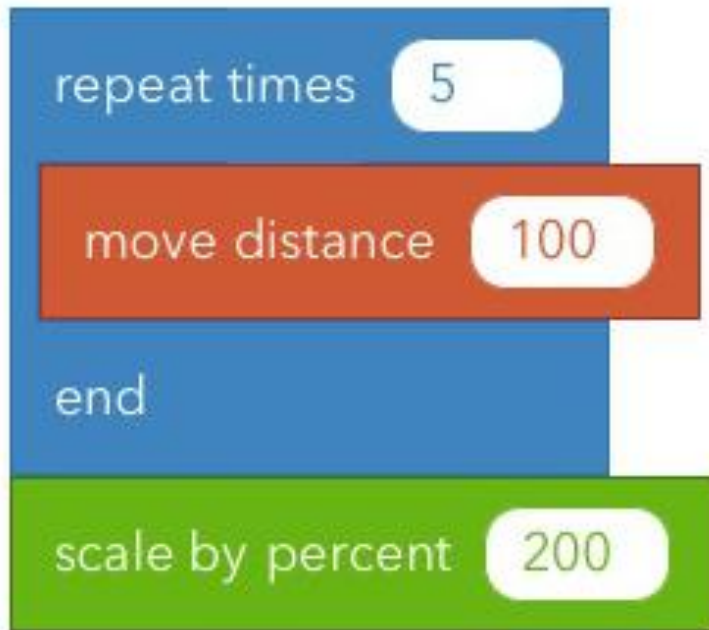
What do you think this code does?

repeat times 5

move distance 100

end

This code will repeat whatever blocks are between the beginning and end of the loop.

repeat times 5

move distance 100

end

Move 100 spaces, 5 times

Any blocks placed after loop will only be run once the loop is complete.

repeat times 5
move distance 100
end

scale by percent 200

Move 100 spaces
Move 100 spaces
Move 100 spaces
Move 100 spaces
Move 100 spaces

Become twice as big!

You can put as many blocks in a loop as you want!
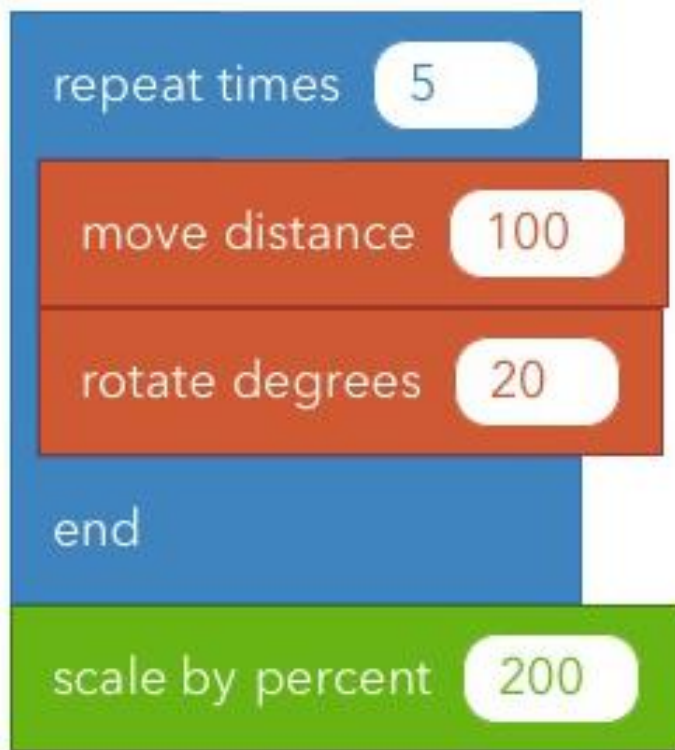
repeat times **5**

move distance **100**

rotate degrees **20**

end

scale by percent **200**

Move 100 spaces, Rotate 20
Move 100 spaces, Rotate 20
Move 100 spaces, Rotate 20
Move 100 spaces, Rotate 20
Move 100 spaces, Rotate 20

Become twice as big!

You can even put **loops** *in* **loops**. Whoa.
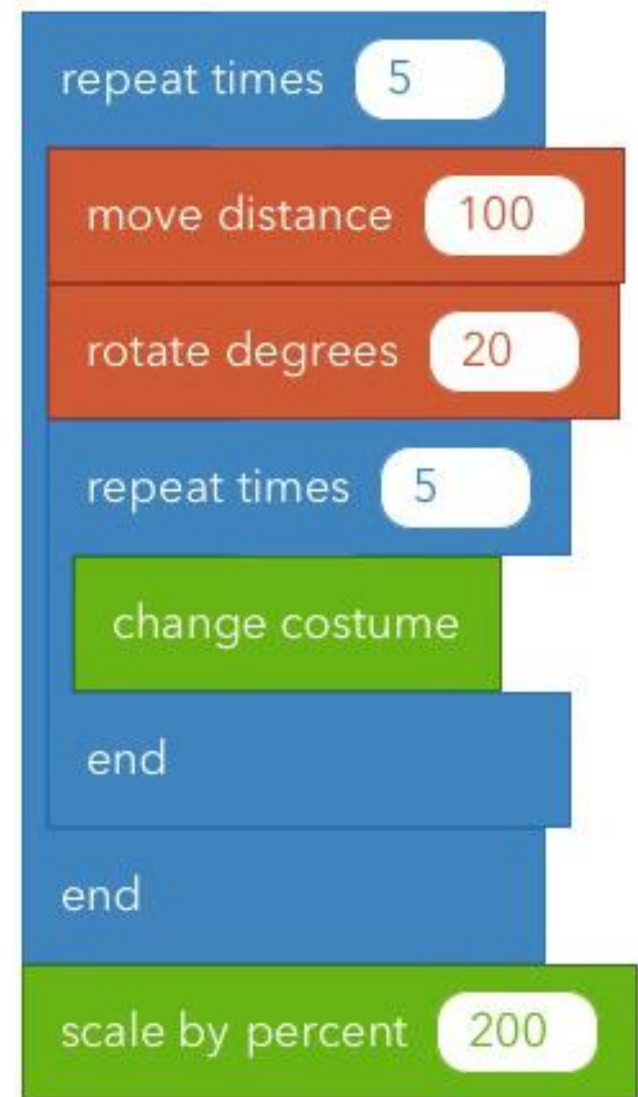
Loops usually work best when you can identify a pattern. Do you remember any patterns from the square assignment?

Lets rewrite the square code using loops!