

Repetition

Instructions that repeat or loop (iterate)

Repeat Loops can help us save space

```
when this sprite clicked
say Great job! for 2 secs
play sound clapping until done
say Great job! for 2 secs
play sound clapping until done
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play sound clapping until done
say Great job! for 2 secs
play sound clapping until done
say Great job! for 2 secs
play sound clapping until done
```

```
when this sprite clicked
repeat 4
  say Great job! for 2 secs
  play sound clapping until done
```

These two do the same job.
Which uses the least blocks?

Some loops can go on and on forever or as long as the program is running.

This one changes dog costumes to make the dog look like it is walking.



Dog2-a

dog2-b

```
when green flag clicked
forever
  switch costume to dog2-a
  wait 0.5 secs
  switch costume to dog2-b
  wait 0.5 secs
```

Forever Loops

Nested Loops (one loop inside another)

```
repeat 5
  say One school day
```

Simple repeat loop to show one five day school week.

```
repeat 5
  say One school day
repeat 2
  say One Weekend Day
```

Two repeat loops to show one whole seven day week.

```
repeat 6
  repeat 5
    say One school day
  repeat 2
    say One Weekend Day
```

Nested loop to show six weeks

All programming languages use repetition, not all use forever loops.

