

# Upstairs Downstairs

**Objective:**

- To develop confidence in doubling 2-digit numbers.

**Learning Outcomes:**

I can double 2-digit numbers.

**Age Group:** 6-12

**Method:** Whole-class teaching.

**What you need:**

Yourself!

**Introduction**

Explain to the pupils that you are going to teach them a clever way of doubling 2-digit numbers. This is an action game. You have to join in! No exceptions!

Discuss the fact that sometimes mental Maths is tricky because all the numbers get jumbled up together in your mind. This game stops the numbers getting mixed up, because you put them in particular places round your body.

Ask for a 2-digit number to double. (eg 38).

Engage in a high-energy dialogue with the class something like this...

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**You:** Everyone stand up. Give yourself a shake. OK.

**You:** Put the thirty up here. [Point up and to the right with your right hand – pupils mirror you using their left hand.]

**You:** Put the 8 up here. [Point up and to the left with your left hand – pupils mirror you using their right hand.]

**You:** What's up here? [Point up and to the right with your right hand.]

**Pupils:** 30

**You:** What's up here? [Point up and to the left with your left hand.]

**Pupils:** 8

**You:** OK, when I point, you have to say the number. Watch where I point and shout it out.

[Point up to the right.]

**Pupils:** 30

[Point to the left.]

**Pupils:** 8

[Point to the left again.]

**Pupils:** 8

[Point to the right again.]

**Pupils:** 30

[etc etc]

**You:** OK. Now we're going to double the numbers.

**You:** What's up here. [Point up and to the right with your right hand.]

**Pupils:** 30

**You:** OK. Double it and put it down here. [Point down and to the right with your right hand – pupils mirror you using their right hand.]

**You:** What's down here?

**Pupils:** 60.

**You:** What's up here? [Point up and to the right with your right hand

**Pupils:** 30.

**You:** What's down here? [Point down and to the right with your right hand

**Pupils:** 60.

Point up to the right

**Pupils:** 30.

down to the right

**Pupils:** 60.

up to the right again

**Pupils:** 30.

up to the left

**Pupils:** 8.

down to the left

**Pupils:** 16.

**You:** What's down here? [Point down and to the left with your left hand

**Pupils:** 16.

**You:** OK. Let's try all the numbers. [Point up to the right.]

**Pupils:** 30.

[Point down to the right.]

**Pupils:** 60.

[Point up to the left.]

**Pupils:** 8.

[Point down to the left.]

**Pupils:** 16.

[Point down to the right.]

**Pupils:** 60.

[Point down to the left.]

**Pupils:** 16.

[Swing your hands together and apart again.]

**Pupils:** 76.

**You:** OK. So double 38 is 76!

[For those less confident, you now need to explain how you get the 76. Get two children to come out and stand one either side of you.]

**You:** OK. What was down here. [Point to the floor on your right.]

**Pupil:** 60.

**You:** OK, you hold the 60. [Give the imaginary 60 to the child on your right.]

**You:** OK. What was down here? [Point to the floor on your left.]

**Pupil:** 16.

**You:** OK you hold the 16. [Give the imaginary 16 to the child on your right.]

**You:** OK – now you are on the units side, so you are not allowed to hold more than 10. How many have you got?

**Pupil:** 16.

**You:** OK, throw a ten over to this side. [Child mimes throwing ten over to the pupil on your right.]

**You:** OK, what did you have?

**Pupil:** 60.

**You:** OK, you've got one more ten. What have you got now?

**Pupil:** 70.

**You:** What about you? [Addressing child on your left.]

**You:** What did you have?

**Pupil:** 16.

**You:** What have you got now?

**Pupil:** 6.

**You:** So you've got 70 and you've got 6. 76!

### **Development**

Repeat with other examples, regularly!