THE BIG BANG DIGITAL

CODING SUCCESS:
EARTHQUAKE RESCUE!

An earthquake has hit an island in the South Atlantic Ocean. As part of the humanitarian aid effort, a BAE Systems Robot Rescue Vehicle is being used by the Royal Navy and Royal Air Force. You can support them as a coder by taking control of the Robot Rescue Vehicle…

In each of the four missions below, can you use the code to work out where the Robot Rescue Vehicle will end up? Write the grid reference as your answer. Remember: each square on the map is 30cm x 30cm.

MISSION 1

```
when program starts
set movement motors to A+B
set 1 motor rotation to 17.5 cm moved
set movement speed to 50 %
move ↑ for 120 cm
```

ANSWER:

MISSION 2

```
when program starts
set movement motors to A+B
set 1 motor rotation to 17.5 cm moved
set movement speed to 50 %
move ↑ for 120 cm
wait 1 seconds
move ↓ for 60 cm
```

ANSWER:

MISSION 3

```
when program starts
set movement motors to A+B
set 1 motor rotation to 17.5 cm moved
set movement speed to 50 %
move ↑ for 60 cm
move ↻ for 0.4 rotations
move ↑ for 30 cm
```

ANSWER:

MISSION 4

```
when program starts
set movement motors to A+B
set 1 motor rotation to 17.5 cm moved
set movement speed to 100 %
move ↑ for 30 cm
move ↻ for 0.4 rotations
start moving straight: 0
wait until E is colour yellow ?
stop moving
move ↑ for 15 cm
```

ANSWER:

In each of the two missions below, can you use the code to work out which program will complete the mission? Write your 'choice' as your answer. Remember that each square on the map is 30cm x 30 cm. Clue: The colour sensor is active on your Robot Rescue Vehicle...

MISSION 5

There is a water contamination issue at the reservoir! Which of these programs would get your Robot Rescue Vehicle to the Reservoir (D4)?

A.

B.

C.

ANSWER:

MISSION 6

There are people stranded on the island (B3). Can you get the Robot Rescue Vehicle to them and 'grab' them to safety?

A.

B.

C.

ANSWER: