

'Following a Series of Instructions' Activity

Objective:

Students understand that every step in a set of instructions is important. In this resource, we look at the idea that computer programs comprise a series of steps (or instructions) to work. Computer program is complicated, especially for this age group, but we are looking at the concept that computers, like people, require instructions to reach a desired end result just like cooking a recipe.

Part 1:

Write a series of instructions for students to get from A to B in the classroom or playground.

You may prefer to use the simple instructions provided but if you want to personalise it to suit your school, write the instructions for yourself. Simply take a piece of paper, start at A and write down what you do, taking into account that they are small people. Place marker B at the finish. You may also wish to add obstacles like tunnels, or balancing beams.

If you are using the instructions provided, you will need to step it out with child-like steps yourself to place marker A and B.

Send students off in groups of 2 or 3 (similar sized children are best) and they must stay together (hold hands of suitable). You may not wish all students to do the course.

Call out the instructions to the children. Make sure they follow them correctly. The second last movement may need to be adjusted to make sure students are lined up ready to step towards B. So... if you say step left 8 steps and they are not quite there, then just say take 2 more steps forwards. If they overstep the mark, get them to take 2 steps backwards.

As they reach Card B, ask them to note that they got to where you wanted because they followed all the instructions.

Part 2:

Bring the children back to marker A. Call out the instructions again but this time, miss step 5 or one of your choice. Where do they end up?

Regroup and Share:

Bring children back and discuss this. Explain to children that when technical people are giving instructions to computers, they cannot miss an instruction or they will end up somewhere they don't want to be.

Extensions/Adaptions/Differentiation:

Break students into pairs. Send one member of the pair off to place a marker wherever they choose, and then return to their partner. They must now give a series of instructions for their partner to reach their marker, without going in a straight line. Swap places and do again. Students who experience difficulties with the first task are paired together, and a teacher/teacher aide supports students as they take turns at giving instructions and then following them.

Regroup and Share:

Discuss the experience with the students. Were the instructions good? Did they reach the marker? Why or why not? And so on.

Instructions:

* These steps are simply an outlined suggestion. You can use these instructions, create your own, or have students create their own instructions for a peer to follow.

1. Step forward 3 steps.
2. Turn to your right and hop 4 times.
3. Turn to your left and step like a giant 5 steps.
4. Turn left again and tiptoe 3 steps like a little fairy or elf.
5. Turn right and take a big step.
6. Turn right and skip 5 times.
7. Turn right and hop 4 times.
8. Turn left and walk forward 8 steps (or adjust to suit)
9. Turn left and take 3 big steps (or adjust to suit)

10. Repeat this course but remove step 5.