

Session 1 - Making Roamer Move (Drawing Simple Shapes)

Activities for Class or Group with teacher and/or TA (in a circle on non carpeted surface)

ICT — To understand common language. To develop skills in controlling and modelling.
Key idea- that Roamer can be moved by pressing keys/giving instructions

Class/Group: reception / first time users KS1

Resources:

- **Roamer** with a face drawn on it to help children realise which way it will move when going forward
- **Roamer batteries**
- **2p coin** to open battery compartment
- **large sheets of paper taped together** to give enough room for Roamer to move and draw a triangle and a square
- **felt pen** for Roamer to draw with (fitted into the hole in centre)
- **3 basic 2D shapes:** square, triangle, circle,
- whiteboard pen & white board for each child (optional)

NB. Train the children to always stand behind Roamer so that they are looking at the keys the right way up. This is important as it will help them when they have to decide which direction Roamer has to go in.



Remove Roamer batteries before the start of the session so that children can't flick the 'on' switch too soon. (see below)

Introduce Roamer by passing it round the circle and asking questions.

What do they think it is? What can it do? Do they think it moves? How can they make it move? At this point children usually get up & try to physically move it (Science link - push/pull) Offer praise & ask if they can think of another way it could be moved -hopefully someone will notice it has a switch and/or suggest it might have batteries. Let a child find and flick the switch. Although they turned Roamer on, it didn't move. Why not? What do they think they might have to do to make it move?

Batteries - open battery compartment with 2p coin and show children the empty compartment and the two batteries that fit there. Pass them round the circle and discuss weight/size; battery power/energy/electricity. (Science link)

Turning Roamer on - Did everyone notice the switch on Roamer's side? What do they think will happen when they flick the switch now? (Science link - prediction skills) Children to sit **very quietly** while one child turns Roamer on. Did they hear anything? Why do they think it "beeped"? Later explain that when Roamer has been resting for a while it "beeps" again as a warning to switch off and save battery power.

Roamer's keys Did anyone notice what was on the top of Roamer? (control panel with keys) What do they think they are for? Invite a child to look for a key that they think might make Roamer move/go? **GO** If they choose the wrong one it will make a different (negative) sound as though it's saying uh-uh (try again). If after a few guesses they don't find the correct key ask if they can find a key that says **GO**.

What do they think will happen if they press **GO**? Choose a child to press **GO**. They will all be surprised that it "moves/dances" (demonstration program) How did it do that? What did the child press to make Roamer "move/dance"?

Lay out the large sheet of paper for Roamer to draw on (taped to the floor if possible to stop the paper moving) **Insert the pen** and ask a child to press **GO**. What did they notice about its movements? What did Roamer draw?

What else can Roamer do?

Remove pen. Give out whiteboards & pens (optional) and tell them that they will need these in a little while. Tell the children that Roamer can draw other shapes. Show them the plastic shapes. Can they name the shapes? Discuss properties of the shapes in terms of sides and corners. How many?

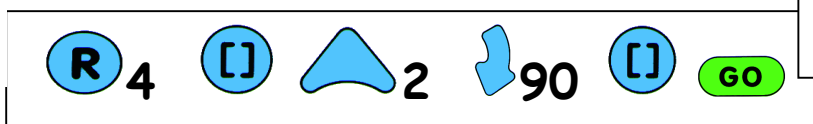
Introduce the Clear Memory key

Remind the children of what happened when they pressed **Go** and tell them that Roamer always shows off by doing his little 'dance' whenever it is turned on and **GO** is pressed. Tell them that they need to make Roamer 'forget' about its dance. Show them the red **CM** button and explain that they need to press it **twice** to make Roamer forget.

Invite a child to do this. Listen for the sound that tells them a key has been pressed. Make sure the children **always** listen for these beeps so that they know a key has been pressed successfully.

Prepare Roamer to draw a square on the paper Tell the children that you are going to give Roamer some 'secret' instructions so that it knows how to draw another one of the shapes. The children don't need to know your secret instructions at this stage. This will come much later. Tell the children they must watch carefully and when Roamer has stopped moving they should draw the shape that they think Roamer made (use whiteboards or draw the shape in the air with their fingers). Remind them that it will be one of the three shapes they have looked at.

Instruct Roamer to draw a square by using a repeat loop:
repeat 4; (start loop) forward 2; turn right 90° (end loop) **GO**




Make sure pen has been removed before pressing **GO!**

Children to watch carefully and draw their predicted shape when Roamer has finished moving - either on whiteboards or in the air,


Insert pen and tell the children that Roamer is going to draw one of the three shapes on the paper and they will be able to see if they are right. They don't need to press **CM** this time because you want Roamer to remember your secret instructions. Choose a child to press **GO**.

Roamer should draw a square! Children to put their thumbs up if their drawing matched Roamer's and they correctly predicted a square. (saves children calling out)

 Make sure that the children have realised that in order for Roamer to respond they need to give it instructions by pressing keys on the control panel.

If time allows

A very quick, simple circle can be drawn by taping the pen to the outside edge of Roamer, pressing

CM CM and then pressing one of the turn keys  followed by **3 6 0** and **GO**.