

Session 2A - Moving Roamer Forward along a Number Line

Activities for Class or Group (Teacher or TA)

Reception (Y1 first time users - ICT KS1 Unit 1F Understanding instructions and making things happen)

ICT – To understand that Roamer can be controlled.

To understand common language and follow simple instructions to make things happen.

To sequence instructions (with help) and predict what will happen.

Begin to use a common format to record.

Numeracy - Recognition of numbers to 10.

To count on from zero (reception) or from any number (Y1)

Resources: Roamer with a face drawn on it to help children realise which way it will move when going forward.

0-10 Number Line (reception) 0-20 (Y1) - interlocking 30x30cm squares or 30x30cm squares drawn onto a piece of floor covering to make a number line mat.

Teddy bear large enough to sit in a square (ready to be knocked over by Roamer)

Number cards 1-10 or 1-20;

Roamer symbol cards made from symbols downloaded from <http://www.valiant-technology.com/freebies/free8.htm> (Clear memory key x2 ; forward key ; number keys 0-9; GO key) and stuck with Blu-tak onto an easel or board in random order.

Laminated copies of Roamer Control Panel (downloaded from above site) for children to refer to.

Later: Optional worksheet for Y1 (Session 2A: Sheet 1, Sheet 2, Sheet 3 and Sheet 4 - Recording Roamer's (forward) movements along a number line) each child will also need a 'pretend Roamer' i.e. a multilink cube. The raised (interlocking) part of the cube represents Roamer's nose (direction).

Recap

Do they remember how to turn Roamer on? To clear memory? Can they see the key that makes Roamer move forward? (refer to copies of Control Panel) what does it look like?

Can anyone remember what to do to make Roamer move forward?

Some children will be able to transfer what they have previously learned to the new task and suggest keys to press. Invite individual children to make and try suggestions as before.

Introduction Tell the children that today they are going to find out how to make Roamer move forward along a number line. Teddy is going to sit on one of the numbers and Roamer has to go to push him off and take teddy's place. Make sure they are all familiar with the numbers on the number line (or have a strategy for finding out i.e. counting squares) and invite a child to place teddy on a number. What number is teddy sitting on? How can you find out?

Jumping along a number line (counting on) Choose a light child to 'be Roamer' (you will probably have to physically jump them along to demonstrate 'jumping on' from one square to another while counting the jumps - which they will see as great fun!) The child should stand on the zero square. Explain that (child) is going to jump along the number line from one square to another and push teddy out of his square. Establish which number teddy is on and demonstrate jumping from square to square while they count the jumps.

Choose a child to 'jump on' and another to change teddy's number. Ask the children to predict how many jumps forward (child) will have to do to land on that square. Some children will guess and some will realise that they should count the squares (count on from 0) Jump the child along counting each jump they make. Were they right?

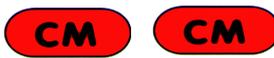
Repeat until several children are counting on from zero and can accurately predict where the child will land.

Learning to move Roamer forward

Tell the children that now it's Roamer's turn and they are going to help you to record what Roamer does by putting the symbol key cards in the right order on the easel.

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.

Invite (child 1) to turn Roamer on. Ask them what they should remember to do next (CM x 2). (child 2) should find two CM keys and place them on the board in order to start the sequence of instructions. and (child 3) carries out the instruction to cancel Roamer's memory.



Ask the children which way/direction they want Roamer to go. Demonstrate by pointing as you ask - do they want it to back or forward? Which key do they have to press to tell Roamer to go forward?



(child 4) places the forward key under the CM keys on the easel and (child 5) presses Roamer's forward key.

Remind the children that now they have to tell Roamer how **far** to go.

Which keys do they need next? (number keys) (child 6) chooses a square for teddy (eg number 6) and the children work out which number they need to move Roamer forward. (child 7) finds the number and sticks it next to the forward key on the easel. (child 8) presses Roamer's number. What do they need to do next? (child 9) finds the GO key symbol and (child 10) presses Roamer's Go key.

Point out to them that the instructions they placed on the easel are the instructions they gave Roamer. Read/chant the sequence of instructions with the children so that they begin to relate Roamer's movements to the instructions they gave. Put Roamer back on the zero square. **DO NOT CLEAR MEMORY.** Press GO and relate Roamer's movement to the instructions on the easel as it moves to square 6.

If time allows

Repeat the activity changing the square that teddy sits on but always starting Roamer on zero at this stage. Encourage the children to count on along the number line and work out which number they will need to program Roamer.

Continue to use the symbols to record the sequence of instructions and draw the children's attention to this.



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 and are beginning to realise that the correct keys need to be pressed in the correct sequence.

Some reception class children will need help to recognise and find numerals to 10 on the number line. If so, encourage them to find out what number it is by getting up and counting the squares or jumping along from number to number - some children will be able to find out what number it is by pointing (from where they are sitting) without touching the squares.

Some/most children will need help to count on from zero depending on the stage they are at.

Most children will be beginning to recognise **some** of the keys on the control panel ie (CM; forward; number keys and GO) and their functions.

Some children will (with prompting) be able to suggest which keys to press

A few children will (with prompting) begin to sequence the keys but these may not be in the correct order.

NB. When using interlocking tiles to make a number line it is difficult to place Roamer in such a way that it stays on track. Be ready to push it back on as soon as it wavers or it will grind to a halt! Better still use more squares to make a run off on each side.