



Following an initial exploration outdoors, children became interested in trajectory play. A small group built a ramp using guttering and began to roll 3D shapes.

The group were given the opportunity to explore a trajectory schema.



The group were provided with a provocation in the block area, exploring a trajectory focus further. A simple map was given on lining paper and the children challenged to create a way to roll a sphere into the 'scoring zone'. After some initial difficulties about how to begin, a ramp is constructed using long blocks. When rolled the sphere kept stopping at each juncture.

*"It's too bumpy!" (Jacob)*





Harvey joins the play.

Further designs are explored and flat boards are added.

The sphere is still stilted and does not reach the 'scoring area'.



A more successful ramp is added, but now the group encounter a different problem, as the sphere rolls away from the intended zone across the floor.

Penny joins the play.

*"Look, it needs to go like that!"*  
(Penny)



The group build around the edge, so that the sphere remains within the grid.



Children involved in the play change. James and Phoebe join and the design continues to develop.

Children begin to explore the capacities of different shapes, observing their behaviours as they roll.



On the second day, the play moves away from the original provocation to explore trajectory movement in a different way. The group decide to use ropes to transport a basket, aiming to construct some form of pulley.



To begin the basket does not move, as the children tie it in place with the ropes. They explore (with some questioning to support) how they might free the basket to move along the rope?



*"It needs to be higher!" (Cora)*

The group become stuck when the basket does not move well along the rope. Cora makes the suggestion that the rope needs to be higher at one end, so the basket will move freely.



Daishonne, Evan and Lewis join the play.

To begin the basket does not move quickly.

The group explore adding blocks to the basket to see what happens. The additional weight, makes the basket fly across the rope!