

Substantive Knowledge

Objects can move (be in **Motion**) in various ways - roll, slide and bounce.

The **pushing** or **pulling** of an object can affect its motion.

Pushing or pulling can do three things, **slow down**, **speed up** or **change the direction** of an object.

The larger the push/pull, the bigger the effect on motion.

Pushing and pulling objects can change their shape.

Disciplinary Knowledge

Observe closely, using simple equipment.



Using their observations and ideas to suggest answers to questions.



Asking simple questions and recognising that they can be answered in different ways.

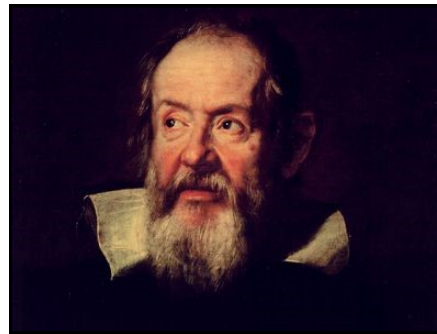


Gathering and recording data to help in answering questions.



Significant Scientists

Galileo Galilei
(1564-1642)



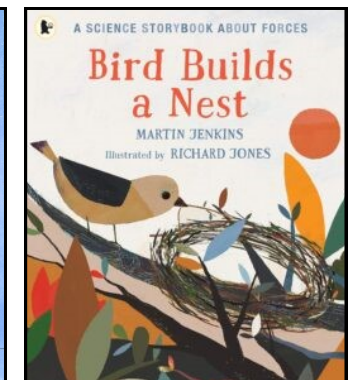
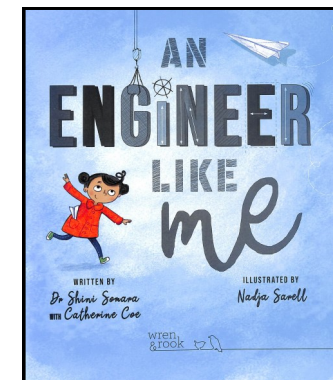
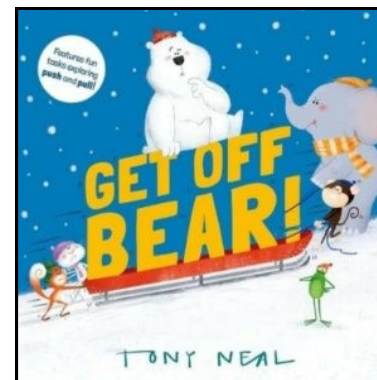
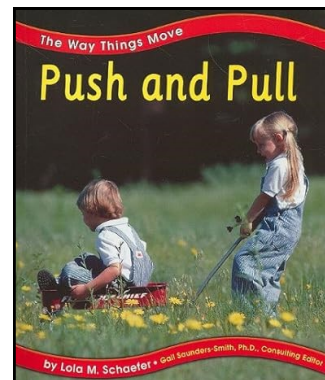
Galileo was an astronomer, physicist and engineer. He has been called the father of observational astronomy, modern-era classical physics, the scientific method, and modern science. He studied speed and velocity, gravity and free fall.

Robert H. Goddard
(1882-1945)



Robert H. Goddard, was an American engineer, professor, physicist and inventor who built and tested the world's first liquid-fuel rocket in 1926.

Interesting Books



Motion



roll



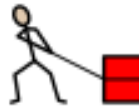
slide



bounce



push



pull

Key Vocabulary

motion	Moving or being moved.
pushing	To move something away from you or away from where it was before.
pulling	Move something towards you or away from where it was before.
slow down	To move or happen more slowly.
speed up	To move or happen faster.
direction	The path along which something moves.

Pushes and pulls



slow down



speed up



change direction

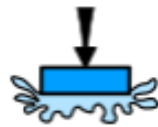
Prior Knowledge



twist







bend

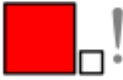


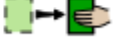


squash



stretch

The  larger  the  push or  pull

the  bigger ! the effect on   motion.