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| **Forces** | **Working Scientifically** | | |
| * Can they identify the effects of air resistance, water resistance and friction that act between moving surfaces? * Can they recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect? | **Planning** | **Obtaining and presenting evidence** | **Considering evidence and evaluating** |
| * Can they plan and carry out a scientific enquiry to answer questions, including recognising and controlling variables where necessary? * Can they make a prediction with reasons? * Can they use test results to make predictions to set up comparative and fair tests? * Can they present a report of their findings through writing, display and presentation? | * Can they take measurements using a range of scientific equipment with increasing accuracy and precision? * Can they take repeat readings when appropriate? | * Can they report and present findings from enquiries through written explanations and conclusions? |
| **Challenge** | | | |
| * Can they describe and explain how motion is affected by forces? (including gravitational attractions, magnetic attraction and friction) * Can they work out how water can cause resistance to floating objects? * Can they explore how scientists, such as Galileo Galilei and Isaac Newton helped to develop the theory of gravitation? | * Can they explore different ways to test an idea, choose the best way and give reasons? * Can they vary one factor whilst keeping the others the same in an experiment? * Can they use information to help make a prediction? * Can they explain, in simple terms, a scientific idea and what evidence supports it? |  |  |