Mechanics Identifying Forces	
Intro	Brief intro to idea of forces acting on objects and the importance of drawing force diagrams.
Activity approx. 20 mins	Give out sheets. The teacher picks one scenario for short discussion and solution on board. Students then work in small groups on the remaining scenarios. Students use mini whiteboards to draw force diagrams and gain agreement in their group. Transfer their agreed diagram to their sheet. Teacher to encourage discussion and questioning. ■ Weight force ■ Clarifying which forces are acting on each body. ■ Many forces are a result of contact – interaction between objects. ■ Better understanding of Newton's 3rd law - forces come in pairs. ■ Thinking about modelling the contact between objects as a normal reaction and a friction force. Look for typical confusions and misconceptions e.g. ■ Direction of force is confused with the direction of motion. ■ Incorrect direction of friction force.
Plenary approx. 10 mins	Bring the group back together and discuss suggested force diagrams. Give students the opportunity to comment upon these and draw out conclusions.

Drawing force diagrams

What are the forces acting on each object?

Draw a force diagram for each.

A book sitting on a table

A swimmer

An aeroplane

A car on the motorway

A skier on a slope

A ball after it is headed

A trailer being towed

A car driving uphill

A book on a sloping desk

Where there is more than one object, draw a force diagram for the other object too.