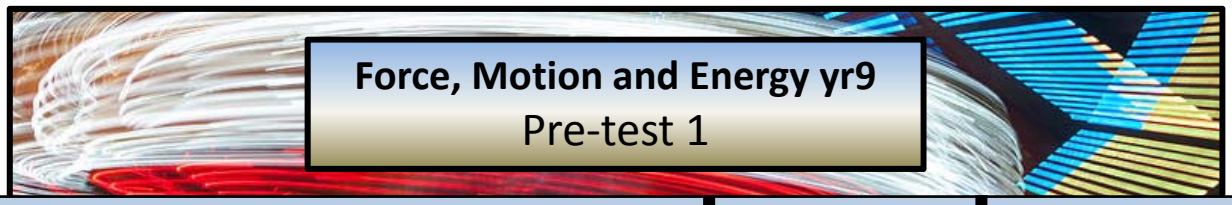
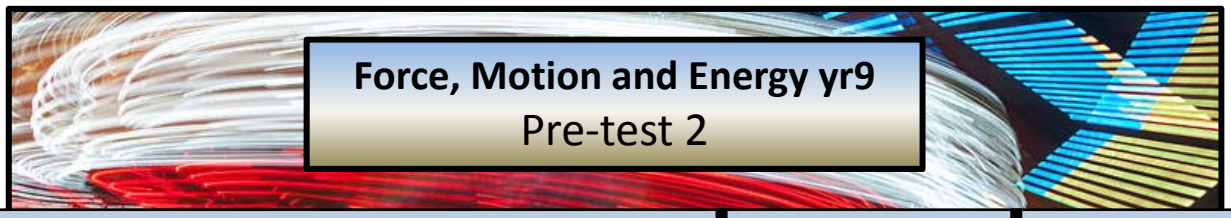


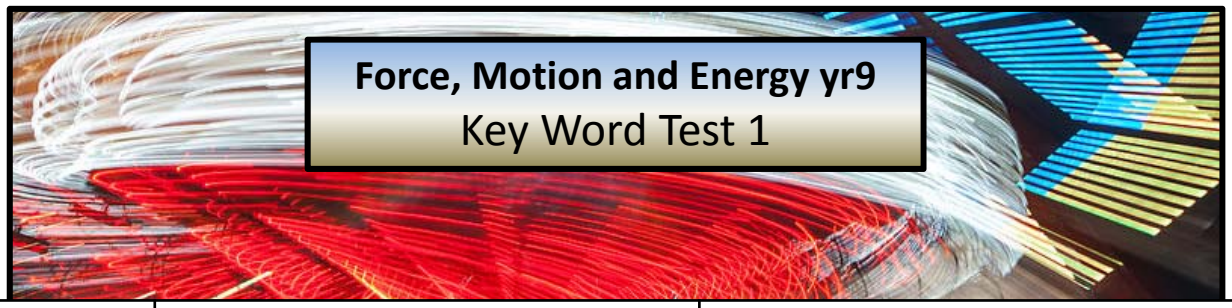
Force, Motion and Energy yr9
Pre-test 1

Science ideas I need to know **Success Criteria**	Start of Unit			End of Unit		
	I know this	I know some of this	I need to learn this	I know this	I know some of this	I need to learn this
1a. Calculate speed, distance or time using v=d/t						
1b. Convert distance and time from one scale to another						
1c. Calculate acceleration, velocity or change in time using $\Delta a = \Delta v/\Delta t$						
1d. calculate stopping distance of vehicles under different conditions						
2a. Plot distance - time graphs and Interpret motion						
2b. Plot velocity (speed) - time graphs and interpret motion						
3a. List key facts about Isaac Newton and his main Scientific discoveries						
3b. Recall the units used for force, motion and energy						
3c. Label the 4 forces and directions, acting on an object, both balanced and unbalanced (Gravity, support, friction , thrust)						
3d. Calculate Net force on an unbalanced object						
3e. Compare, with examples, useful and non-useful friction in everyday situations						
4a. Distinguish between mass and weight						
4b. Explain the effect that mass and the distance to the mass has on Gravity						



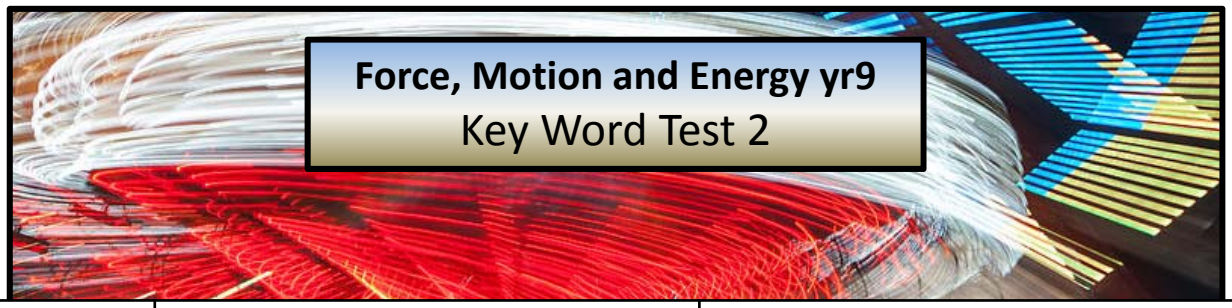
Force, Motion and Energy yr9
Pre-test 2

Science ideas I need to know **Success Criteria**	Start of Unit			End of Unit		
	I know this	I know some of this	I need to learn this	I know this	I know some of this	I need to learn this
6a. Explain that energy makes things happen using everyday examples						
6b. Identify types of energy as being either Kinetic (Active) or Potential (stored) energy						
7a. State the "law of conservation of energy"						
7b. Write energy transformation stories for common situations						
8a. Identify energy sources as either renewable or non-renewable energy						
8b. Compare the positives and negatives of fossil fuels and renewable energy						
9a. Calculate energy efficiency from useful energy and waste energy						
10a. Describe how heat energy is transferred by conduction, convection and radiation and give an example of each						
10b. Investigate how different coloured surfaces can absorb or reflect radiant heat energy						



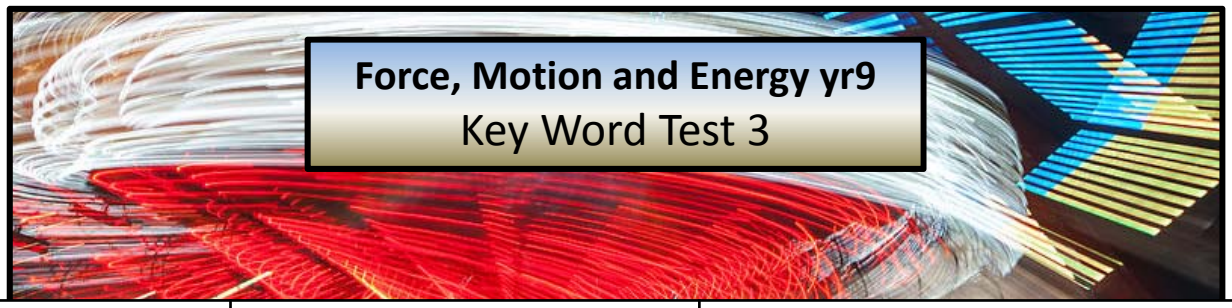
Force, Motion and Energy yr9
Key Word Test 1

Word	Your definition of the word: Start of unit	Your definition of the word: End of unit
motion		
units		
distance		
speed		
velocity		
stopping distance		
acceleration		
stationary		
force		
net force		
friction		
support force		



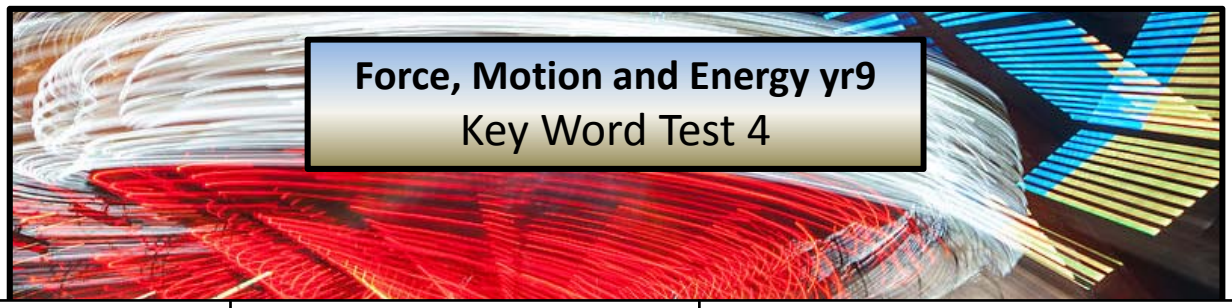
Force, Motion and Energy yr9
Key Word Test 2

Word	Your definition of the word: Start of unit	Your definition of the word: End of unit
thrust		
Newton		
gravity		
unbalanced force		
balanced force		
net force		
mass		
weight		



Force, Motion and Energy yr9
Key Word Test 3

Word	Your definition of the word: Start of unit	Your definition of the word: End of unit
Energy		
joule		
kinetic energy		
potential energy		
chemical energy		
elastic energy		
gravitational-energy		
transformation		
conservation		
renewable		
non-renewable		



Force, Motion and Energy yr9
Key Word Test 4

Word	Your definition of the word: Start of unit	Your definition of the word: End of unit
fossil fuels		
efficiency		
useful energy		
waste energy		
input energy		
output energy		
heat transfer		
convection		
conduction		
radiation		