

KS3 Assessment Rubric – SCIENCE – ENERGY, FORCES & SPACE

Year 7

Working Towards Age Expectations	Working At Age Expectations	Working Above Age Expectations
<ul style="list-style-type: none"> • Pupils use their knowledge and understanding of energy, forces and space to link cause and effect in their observations of the properties and effects of light, sound, forces, and electricity, such as a bulb failing to light because of a break in an electrical circuit, or a push or pull changing the speed or direction of a moving object. • They begin to make generalisations such as sounds getting fainter the further the listener is from the source. • They use simple scientific ideas with evidence they have collected to give explanations of their observations, linking cause and effect, for example using a switch to turn off a light bulb in an electrical circuit. • They recognise and explain the purpose of a variety of scientific and technological developments in their everyday lives, for example streamlining and air resistance. 	<ul style="list-style-type: none"> • Pupils describe some processes and phenomena related to energy, forces and space, drawing on scientific knowledge and understanding and using appropriate terminology, for example the observed position of the sun in the sky over the course of a day. • They recognise that evidence can support or refute scientific ideas, such as sounds being heard through a variety of materials. • They recognise some applications and implications of science, such as the use of electrical components to make electrical devices. 	<ul style="list-style-type: none"> • Pupils describe processes and phenomena related to energy, forces and space, drawing on abstract ideas and using appropriate terminology, for example ‘balanced forces’. • They explain processes and phenomena, in more than one step or using a model, such as the length of a day or a year. • They apply and use knowledge and understanding in familiar contexts. • They recognise that both evidence and creative thinking contribute to the development of scientific ideas, such as objects being seen when light from them enters the eye. • They describe applications and implications of science, such as the ways sound can be produced and controlled, for example in musical instruments.

Year 8

Working Towards Age Expectations	Working At Age Expectations	Working Above Age Expectations
<ul style="list-style-type: none"> • Pupils describe some processes and phenomena related to energy, forces and space, drawing on scientific knowledge and understanding and using appropriate terminology, for example the observed position of the sun in the sky over the course of a day. • They recognise that evidence can support or refute scientific ideas, such as sounds being heard through a variety of materials. • They recognise some applications and implications of science, such as the use of electrical components to make electrical devices. 	<ul style="list-style-type: none"> • Pupils describe processes and phenomena related to energy, forces and space, drawing on abstract ideas and using appropriate terminology, for example ‘balanced forces’. • They explain processes and phenomena, in more than one step or using a model, such as the length of a day or a year. • They apply and use knowledge and understanding in familiar contexts. • They recognise that both evidence and creative thinking contribute to the development of scientific ideas, such as objects being seen when light from them enters the eye. • They describe applications and implications of science, such as the ways sound can be produced and controlled, for example in musical instruments. 	<ul style="list-style-type: none"> • Pupils describe processes and phenomena related to energy, forces and space, using abstract ideas and appropriate terminology, for example electric current as a way of transferring energy. • They take account of a number of factors in their explanations of processes and phenomena, for example in the relative brightness of stars and planets. They also use abstract ideas or models, for example sustainable energy sources and the refraction of light. • They apply and use knowledge and understanding in unfamiliar contexts. • They describe some evidence for some accepted scientific ideas, such as the transfer of energy by light, sound or electricity, and the refraction and dispersion of light. • They explain the importance of some applications and implications of science, such as the responsible use of unsustainable sources of energy.

Year 9

Working Towards Age Expectations	Working At Age Expectations	Working Above Age Expectations
<ul style="list-style-type: none"> ● Pupils describe processes and phenomena related to energy, forces and space, drawing on abstract ideas and using appropriate terminology, for example 'balanced forces'. ● They explain processes and phenomena, in more than one step or using a model, such as the length of a day or a year. ● They apply and use knowledge and understanding in familiar contexts. ● They recognise that both evidence and creative thinking contribute to the development of scientific ideas, such as objects being seen when light from them enters the eye. ● They describe applications and implications of science, such as the ways sound can be produced and controlled, for example in musical instruments. 	<ul style="list-style-type: none"> ● Pupils describe processes and phenomena related to energy, forces and space, using abstract ideas and appropriate terminology, for example electric current as a way of transferring energy. ● They take account of a number of factors in their explanations of processes and phenomena, for example in the relative brightness of stars and planets. They also use abstract ideas or models, for example sustainable energy sources and the refraction of light. ● They apply and use knowledge and understanding in unfamiliar contexts. ● They describe some evidence for some accepted scientific ideas, such as the transfer of energy by light, sound or electricity, and the refraction and dispersion of light. ● They explain the importance of some applications and implications of science, such as the responsible use of unsustainable sources of energy. 	<ul style="list-style-type: none"> ● Pupils describe a wide range of processes and phenomena related to energy, forces and space, using abstract ideas and appropriate terminology and sequencing a number of points, for example how energy is transferred by radiation or by conduction. ● They make links between different areas of science in their explanations, such as between electricity and magnetism. ● They apply and use more abstract knowledge and understanding in a range of contexts, such as the appearance of objects in different colours of light. ● They explain how evidence supports some accepted scientific ideas, such as the role of gravitational attraction in determining the motion of bodies in the solar system. ● They explain, using abstract ideas where appropriate, the importance of some applications and implications of science, such as the uses of electromagnets.