

## Lower School Report 1 | Year 7 Autumn Term | Science

### Attainment Descriptors

Developing	Improving	Meeting	Exceeding
Students <b>rarely</b> demonstrate that they have met any of the criteria.	Students <b>occasionally</b> demonstrate that they meet <b>some</b> of the criteria for the term.	Students demonstrate that they <b>regularly</b> meet <b>most</b> of the criteria below.	Students <b>almost always</b> demonstrate that they meet <b>all</b> criteria. Often, they will take advantage of opportunities to broaden their understanding of the subject.

Year 7 Science Students work in rotation throughout the year. This means that not all students will have studied the same topics at the time of report issue. Below is a table detailing which topics have been covered by each group. If students have not covered a topic this term, they will do so next term.

Biology Cells and Organisation	Chemistry Materials & Particles	Physics Energy
7A, 7C, 7N, 7P, 7S, 7T	7A, 7E, 7M, 7N, 7S, 7T	7C, 7E, 7M, 7P

Subject	Learning Criteria	Resources to support your child at home
<b>Biology</b> Cells and Organisation	Students can define and give examples of cells, tissues, organs and organ systems and recall the hierarchy of organisation. Students can describe the function and structure of the skeletal system including the role of joints. Students can describe the function of major muscles groups and describe how antagonistic muscle groups work. Students can explain how to use a microscope to observe cells, including amoeba. Students can compare plant and animal cells. Students understand that some cells are specialised for a specific purpose and can give examples of these. Students can describe the process of diffusion and its importance within living organisms. Students can describe the structure and function of an amoeba.	<a href="https://www.bbc.co.uk/bitesize/article/zkm7wnb">https://www.bbc.co.uk/bitesize/article/zkm7wnb</a>
<b>Chemistry</b> Materials & Particles	Students can explain why substances have different properties based on the arrangement of particles, including density. Students can compare the properties of substances in their 3 states and discuss the arrangement and movement of their particles. They can use observations to identify the state of a substance. Students understand when and why substances change state and can use correct vocabulary to describe these physical changes. Students can describe the process of diffusion. Students can describe gas pressure and begin to make predictions about how changes in conditions could impact this. Students can identify atoms, molecules and elements using models.	<a href="https://www.bbc.co.uk/bitesize/articles/z3qydm#:~:text=Substances%20can%20exist%20in%20three,of%20solids%2C%20liquids%20and%20gases.">https://www.bbc.co.uk/bitesize/articles/z3qydm#:~:text=Substances%20can%20exist%20in%20three,of%20solids%2C%20liquids%20and%20gases.</a>

<p>Physics Energy</p>	<p>Students can recall the law of energy conservation, several energy stores and simple energy transfers.</p> <p>Students can identify a range of renewable and nonrenewable energy resources and can recall how electricity is generated from a fossil-fuel power station.</p> <p>Students can identify and compare a range of different energy values within foods.</p> <p>Students can calculate Power and Efficiency and can evaluate the benefits of using more efficient appliances.</p> <p>Students understand the purpose of machines in the context of work. Students can recall several simple machines.</p> <p>Students understand temperature is a measure of energy and can demonstrate how conduction of heat can be investigated.</p>	<p><a href="https://www.bbc.co.uk/bitesize/topics/zc3g87h/articles/zg2sn9q">https://www.bbc.co.uk/bitesize/topics/zc3g87h/articles/zg2sn9q</a></p> <p><a href="https://www.bbc.co.uk/bitesize/topics/zc3g87h/articles/zm6yf82">https://www.bbc.co.uk/bitesize/topics/zc3g87h/articles/zm6yf82</a></p>
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