

SC25 Qualitative Analysis: Tests for Ions

SC25a Flame tests and photometry

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 5 th	Recall flame test colours for some metal ions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 th	Describe how to carry out flame tests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Describe the advantages of instrumental methods of analysis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	Use flame photometer data to determine the concentration of metal ions in solution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	Use flame photometer data to identify metal ions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SC25b Tests for positive ions

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 5 th	Explain why the test for a given ion must be unique to that ion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 th	Recall some metal hydroxide precipitate colours.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Describe how to identify metal ions using sodium hydroxide solution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Describe how to identify ammonium ions and ammonia.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SC25c Tests for negative ions

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 6 th	Describe how to identify carbonate ions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Describe how to identify carbon dioxide.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Describe how to identify sulfate ions in solution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 th	Recall the colours of silver halide precipitates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Describe how to identify halide ions in solution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SC26 Bulk and Surface Properties of Matter Including Nanoparticles

SC26a Choosing materials

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 3 rd	Recall what glass ceramics and clay ceramics are.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Use data to compare the physical properties of ceramics, polymers and metals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 th	Explain why the properties of a material make it suitable for a given use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Select suitable materials for a particular purpose using given data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SC26b Composite materials

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 4 th	Recall what composite materials are.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 4 th	Give some examples of composite materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Explain why the properties of a composite material make it suitable for a given use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	Select suitable materials, including composite materials, for a particular purpose using given data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SC26c Nanoparticles

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 5 th	Recall what nanoparticles are.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	Compare the relative sizes of nanoparticles, atoms and molecules.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	Calculate the surface area to volume ratio of a nanoparticle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	Relate the uses of nanoparticulate materials to their properties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Explain some possible risks associated with nanoparticles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>