

## STATES OF MATTER: Solids (Year 5 and 6)

<b>AIMS</b>
<ul style="list-style-type: none"> <li>• To know what makes a solid a solid.</li> <li>• To grow crystals.</li> <li>• To make hypotheses.</li> <li>• To be sensible when doing experiments.</li> </ul>

<b>Teaching objectives</b>	<b>Learning outcomes</b>
<b>CONTENTS</b>	
<p><b><u>Concepts:</u></b></p> <ul style="list-style-type: none"> <li>• Defining a solid.</li> <li>• Differentiating between crystalline and amorphous solids.</li> </ul> <p><b><u>Procedures:</u></b></p> <ul style="list-style-type: none"> <li>• Using a microscope.</li> <li>• Carrying out an experiment: growing crystals.</li> <li>• Carrying out an experiment: dilating solids.</li> <li>• Drawing crystals.</li> <li>• Measuring crystals.</li> <li>• Experimenting with variables.</li> </ul> <p><b><u>Attitudes:</u></b></p> <ul style="list-style-type: none"> <li>• Tidying up.</li> <li>• Taking care.</li> <li>• Encouraging pupils to do the experiment at home adding different variables.</li> <li>• Listening to each other.</li> </ul>	<p><b><u>Concepts:</u></b></p> <ul style="list-style-type: none"> <li>• Drawing, completing tables and oral and written production.</li> <li>• Drawing and oral and written production.</li> </ul> <p><b><u>Procedures:</u></b></p> <ul style="list-style-type: none"> <li>• Drawing and oral production.</li> <li>• Drawing, completing tables and oral and written production.</li> <li>• Oral and written production.</li> <li>• Drawing and oral production.</li> <li>• Drawing and oral and written production.</li> <li>• Drawing, completing a table and oral and written production.</li> </ul> <p><b><u>Attitudes:</u></b></p> <ul style="list-style-type: none"> <li>• Tidying up after the experiment.</li> <li>• Taking care when something can hurt them: hot water.</li> <li>• Preparing a project with images, tables and written expression.</li> <li>• Listening to each other.</li> </ul>
<b>COGNITION</b>	
<ul style="list-style-type: none"> <li>• Observing</li> <li>• Ordering</li> <li>• Comparing</li> <li>• Exemplifying</li> <li>• Predicting</li> <li>• Hypothesizing</li> </ul>	<ul style="list-style-type: none"> <li>• Drawing and oral and written production.</li> <li>• Oral and written production.</li> <li>• Oral and written production.</li> <li>• Oral and written production.</li> <li>• Drawing and oral and written production.</li> <li>• Oral production.</li> </ul>

<ul style="list-style-type: none"> <li>• Defining</li> <li>• Explaining</li> </ul>	<ul style="list-style-type: none"> <li>• Oral and written production.</li> <li>• Oral and written production.</li> </ul>
<b>COMMUNICATION</b>	
<i>The activities have their own scaffolding to help the pupils to talk and write.</i>	
<b>CULTURE/CITIZENSHIP</b>	
<ul style="list-style-type: none"> <li>• Interest to understand why railway lines have/had a gap in between.</li> </ul>	

<b>ACTIVITIES</b>
<p>1.- Observe, touch,... different solids and then complete the table below. Put a tick (✓) or a cross (×).</p> <p>2.- What do you imagine the structure that forms ..... to be like?</p> <p>3.- Use the microscope to see the structure that forms...</p> <p>4.- We are going to grow crystals from the saturated solution. You already know what a sugar crystal is like, but after the experiment: What do you imagine a sugar crystal to be like? Bigger, smaller, the same colour, a different colour... Draw it and add measurements.</p> <p>5.- Let's grow crystals.</p> <p>6.- Let's dilate a solid.</p> <p>7.- After observing, touching, imagining, drawing, measuring... the whole class is ready to define what a solid is.</p> <p>01.- Prepare a poster about one of the themes from culture/citizenship (activity to be done in the English language class).</p>
<b>RESOURCES</b>
<i>You will find them on the pupils' activity sheets and/or in the teachers' notes.</i>