



# Discovering Science: Medicinal Chemistry

## Lesson plan

Starter activity	Learning objectives		
As a class, watch the video in Step 2.3 (Imaging techniques). Explain that the class will be researching imaging techniques, so students should take detailed notes.	<ul style="list-style-type: none"><li>• To explain different imaging techniques, the chemicals used in them and how they work.</li><li>• To define the chelate effect.</li><li>• To convey and present complex information on medicinal chemistry in a simple way.</li></ul>		
Main activities	Resources required		
<p>Split the class into four groups. Each group will research and produce an informative poster on one of the following:</p> <ol style="list-style-type: none"><li>1. X-rays</li><li>2. Ultrasound</li><li>3. MRI</li><li>4. Radioisotope imaging</li></ol> <p>When conducting research and producing their posters, groups should consider the following:</p> <ul style="list-style-type: none"><li>• How does this imaging technique work?</li><li>• Which chemical elements are involved in this process?</li><li>• What is the chelate effect and how does it relate to this technique?</li></ul> <p>Posters should be as simple and easy to understand as possible. Information and links provided in Steps 2.3 and 2.4 will be useful.</p> <p>Each group should then present their poster to the class.</p>	<ol style="list-style-type: none"><li>1. Devices for watching video and conducting research.</li><li>2. Creative materials for producing posters.</li><li>3. Materials for individual reflections (if done in class).</li></ol> <th data-bbox="778 1256 1497 1296">Assessment for Learning</th> <td data-bbox="778 1296 1497 1364">Group posters, individual reflections.</td>	Assessment for Learning	Group posters, individual reflections.
Differentiation	<p><b>SEND:</b> Videos have subtitles. <b>Low ability:</b> Peer-learning. <b>Gifted and Talented:</b> Peer-teaching.</p>		
Plenary	<p>After all four posters have been presented, conduct a quick poll of the class, asking students which technique they would be most comfortable with, and why.</p> <p>As an additional task if time, or homework, ask students to write a brief individual reflection on the following:</p> <ul style="list-style-type: none"><li>• Why do you think it is important for patients to understand how imaging techniques work?</li></ul>		

