UNIVERSITY OF LEEDS

Exploring Cancer and Genetic Disease

Lesson plan

<table>
<tr><th>Starter activity</th><th>Learning objectives</th></tr>
<tr><td>Students name as many carcinogens as they can think of and put on post-it notes on the board. (If necessary, explain what a carcinogen is).

Students should move and place the carcinogens in order of importance (in terms of how many cancer cases they cause worldwide).</td><td>• To identify some common causes of cancer.

• To define the five groups of carcinogens.

• To consider the way in which some specific carcinogens cause cancer.</td></tr>
<tr><th>Main activities</th><th>Resources required</th></tr>
<tr><td rowspan="5">Introduce the five groups of carcinogens: chemical compounds, infectious agents, minerals, radiation, and physiological (information from Step 2.2 can be used for this). Ask students to think of definitions for each one and guide the discussion.

Place an A4 sign for each group in five different places around the classroom. Through discussion, students now place the carcinogen post-it notes from their list into one of the categories around the room. Can they think of any more to add now that they have considered the categories?

Divide the class into 3 groups and ask each group to research one of the following carcinogens: UV light, hepatitis C virus, and alcohol. Each group should explore the mechanism by which each carcinogen causes cancer.</td><td>1. A4 paper and post-it notes for signage and carcinogens.
2. Pens.
3. Enough space for physical movement around the room.
4. Devices for research.</td></tr>
<tr><th>Assessment for Learning</th></tr>
<tr><td>Lists of carcinogens grouped into categories, monitoring student discussion, research findings.</td></tr>
<tr><th>Differentiation</th></tr>
<tr><td>SEND: Teacher-led support.
Low ability: Peer-learning.
Gifted and Talented: Peer-teaching.</td></tr>
<tr><th>Plenary</th></tr>
<tr><td>Each of the three groups presents their findings back to the class.

Ask students if any of the carcinogens discussed today surprised them and why.</td></tr>
</table>