

## Sugary drinks as a complex socio-scientific issue

Learning Foci	Understand/Know/Do	Suggestions for pedagogies/strategies	Supporting resources
<p><b><u>Complexity science and systems thinking</u></b></p>	<p>Describe components and principles of complex systems and how they interact: emergence, interconnectedness, non-linear relationships, feedback loops, unintended consequences, systems adaptation, and resilience.</p> <p>Apply systems thinking to explain influences on sugary drink consumption.</p> <p>Identify components of the sugary drink system (such as producers, distributors, marketers, consumers, and regulatory bodies), and suggest opportunities to disrupt negative influences.</p> <p>Provide examples of feedback loops that positively and negatively influence sugary drink consumption.</p> <p>Explain the importance of looking for patterns over time when attempting to analyse and predict short- and long-term consequences of changes to a system.</p>	<p>Systems modelling activity where students move around the room to model/become part of a complex system.</p> <p>Direct teaching supported by visual display/PPT</p> <p>Discuss stories to illustrate feedback loops</p> <p>Students make up their own stories to illustrate feedback loops.</p> <p>Survey grandparents and elders about beverage consumption when they were young – what non-alcoholic drinks did they make/buy/enjoy?</p> <p>Discuss stories or videos illustrating how and why sugary drink consumption has changed over time</p> <p>Make a timeline to map changes over time across societies and cultures.</p> <p>Explore and analyse GUINZ beverage data.</p> <p>Community Survey: Work in pairs or small groups to survey their community about their sugary drink consumption habits and attitudes towards reducing consumption. Analyze findings and share results with others.</p>	<p>LENScience <a href="#">Systems Science for Health Living</a> resources</p> <p>Systems modelling activity</p> <p>PowerPoint slides</p> <p>Feedback loop stories</p> <p>Survey support</p> <p>Change over time video/stories</p> <p>Timeline template</p>



<p><b><u>Availability and over-consumption of sugary drinks as a complex issue</u></b></p>	<p>Give reasons for why the production, availability and over-consumption of sugary drinks is a complex issue.</p> <p>Investigate, analyse, and discuss environmental and other influences, e.g., marketing and product placement, on sugary drink purchase and consumption.</p> <p>Explore personal, social, and environmental factors including barriers and enablers to sugary drink consumption to understand challenges in achieving and sustaining behaviour change.</p>	<p>Use 'triangle-trade-off' activities to indicate, visualise and discuss perceived relative importance/weightings of different influences on sugary drink consumption.</p> <p>Analyse peer vignettes that tell a story about the complex issues associated with sugary drink consumption from different perspectives – e.g., multinational companies profiting from ill health.</p> <p>Arrange sugary drink system factors and influences on a concept map skeleton. (Terms/ideas supplied to speed up the process).</p> <p>Use a Mentimeter poll spider diagram to show different weightings of perspectives and influences on sugary drink consumption. E.g., include, lack of willpower, available everywhere, preference, cheap price, it's cool, advertising, lack of education, addiction, social situations. Categorise each factor as personal, social, or environmental.</p> <p>Environment Mapping: create a map of a local food environment, including types of food outlets and availability of healthy options. Identify barriers to accessing healthy options.</p> <p>Photovoice research: What factors influence sugary drink purchase and consumption?</p> <p>Analyse soft drink commercials for persuasive techniques across a range of media – who is represented, what are they doing, - how do these representations focus people on immediate gratification and distract from long-term negative health consequences?</p>	<p>Triangle trade-off prompts</p> <p>Prepared peer vignettes</p> <p>Templates/support for students to write peer vignettes</p> <p>Concept map skeleton and word cards</p> <p>Mentimeter poll</p> <p>Environment Mapping teacher notes</p> <p>Photovoice teacher notes</p> <p>Exemplar advertisements and analyses</p>
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