Teaching ideas for comprehension



Literacy continuum K-10

Science syllabus links – Stage 4 Body Systems (SC4-15LW4c)

Cluster 14 markers

* Interprets texts that present challenging ideas and issues.
* Compares own opinions and interpretations of texts with others and justifies position with textual evidence.

Teaching idea

* Energy drink article – comprehension

Purposes

* to link previously learnt content on the circulatory system to relevant and recent scientific research
* to evaluate the validity of the research being reported on.

Procedure

1. Students read the article on energy drinks in small groups.
2. Teacher guides discussion about the content of the article. What is the article about? To whom may this information be relevant?
3. Teacher explains the ‘here, hidden and head’ questioning strategy. That is, that some answers will be found quite easily in the text, some answers may be found by linking information in different parts of the text as well as to prior knowledge, and some answers will require the students to think about a solution to or opinion about a problem.
4. Working in groups students answer questions.
5. Student answers are shared with the class. Students are encouraged to share opinions and thoughts about what they think the health effects of energy drinks could be and whether this research is extensive enough to make valid claims.

Activity

Read article ‘[Energy drinks could improve heart function](https://web.archive.org/web/20130721050605/http%3A/health.ninemsn.com.au/healthnews/8526455/energy-drinks-could-improve-heart-function)’, by Kimberly Gillan.

Questions

1. What is it suggested that taurine may be responsible for?
2. increasing blood pressure
3. helping bones to become stronger
4. releasing calcium in muscle cells
5. helping cats to have better reflexes
6. What is speckle-tracking echocardiography?
7. tracking specks of blood to see how they echo
8. the latest innovation in heart ultrasound technology
9. graphing the echoes of the heart
10. a new way of measuring blood pressure
11. What is one known risk factor for heart disease?
12. consumption of high sugar energy drinks
13. vigorous exercise
14. mixing energy drinks with alcohol
15. elevated and sustained high blood pressure
16. What were some of the variables that needed to be controlled to make sure the investigation was a fair test?

1. What is meant by the phrase ‘individuals at rest’?

1. Using your knowledge of the heart, explain what may be meant by ‘ventricular function’.

1. a. Outline two more studies that should be done to further investigate the full effects of energy drinks.

b. Explain how these studies may be carried out

c. Suggest why it is necessary to carry out further testing into energy drinks

1. What are Dr Grenfell’s concerns about the study? Does he agree or disagree with the findings of Dr Cameli that energy drinks could improve heart function?

1. Does this article convince you to drink energy drinks more often? Why or why not?