

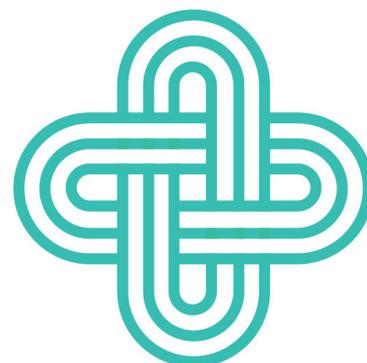
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Health Education Teaching
and learning activities for years
9&10 (NZC levels 4-5)

Thinking critically about
the marketing of energy
drinks and the wellbeing
of young people

September 2018



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Scope and purpose of this resource

Scope

The collection of health education teaching and learning activities in this resource are aimed at students in Years 9&10. The activities reflect learning at levels 4&5 of the Health and Physical Education Learning Area in The New Zealand Curriculum (Ministry of Education, 2007).

The central focus for learning is the way energy drinks are marketed to young people. It challenges students to think critically about the messages in advertising and other indirect methods of promoting energy drinks, and teaches them to respond in ways that promote wellbeing.

The primary focus for learning is specifically 'energy drinks' which contain caffeine and other stimulants – see Activity 1. The focus is not 'sports drinks', which aim to restore electrolyte balance after strenuous activity, or sugary soft drinks. However, the activities could be extended to include these other types of drinks. Also, the learning focus is not about reading product labels or analysing energy drink contents (which teachers may include if they think it is useful).

The aim is to develop students' critical thinking, and encourage them to become critical consumers as a way to promote the wellbeing of themselves and others.

What's the health and wellbeing concern?

The high level of caffeine (and sugar) in energy drinks has raised health concerns about their safety, particularly for young people. While this is not a well-researched topic, a number of recent studies, as well as government ministry and non-government organisation (NGO) documents, highlight these growing concerns, and make recommendations for safe use based on what is known so far.

Full citations and URL links to the documents summarised below are listed in the reference section at the end of this resource.

Several New Zealand government ministries and NGOs have published statements about the use of caffeine by children and young people:

From the New Zealand Ministry of Health

Caffeine:

- ▶ There is currently no recognised reference standard for caffeine exposure, such as an acceptable daily intake (ADI).
- ▶ Caffeine is a psychoactive stimulant drug that acts on the central nervous system, alters brain function, acts as a diuretic, and elevates blood pressure and metabolic rate.
- ▶ Acute adverse effects from caffeine that have been identified include anxiety, headaches, insomnia, irritation of the gastrointestinal tract, nausea and depression.

- ▶ Long-term adverse effects from caffeine are not clear.
- ▶ Children may be more sensitive to adverse effects of caffeine than other groups in the population.
- ▶ An upper exposure of 2.5 mg/kg of body weight per day has been suggested as a cautious toxicological limit on which to base risk assessment for children, on the grounds of limited evidence.
- ▶ Caffeine intake data based on the 2002 National Children’s Nutrition Survey and 1997 National Nutrition Survey show more than 95 percent of children (5–12 years) and most young people (13–18 years) have relatively low intake levels. However, a small proportion of young people (> 5%) have high intake levels (approximately 4.5 mg/kg per day). [Note that the level of energy drink marketing and usage has grown since these studies.]
- ▶ Children and young people should limit their intake of foods and drinks containing caffeine. **(p168)**
- ▶ Energy drinks and energy shots are not recommended for children or young people.
- ▶ Energy drinks should not be used for fluid replacement (to quench thirst or replace fluid after activity) because caffeine and guarana (a source of caffeine also in some energy drinks) are diuretics, which increase urine output. Energy drinks also tend to have too high a concentration of carbohydrate to be effective for fluid replacement during or after activity. **(p77-78)**

Extracts from: Ministry of Health (2012). Food and Nutrition Guidelines for Healthy Children and Young People (Aged 2 –18 years). A background paper. Partial revision February 2015.

In addition:

The New Zealand Health Promotion Agency (HPA) have published a two-page statement Behind the hype: Caffeine that summarises some of the points in simple language – although this is not specific to children and young people.

The New Zealand Ministry for Primary Industries (MPI) has also summarised the effects of caffeine from a primary industries perspective, focusing on MPI’s role in managing food safety. This includes a range of foods, not only energy drinks.

Food Standards Australia New Zealand (FSANZ) states that “there is no recognised health-based guidance value, such as an Acceptable Daily Intake (ADI), for caffeine. However, a FSANZ Expert Working Group analysed the available literature in 2000 and concluded that there was evidence of increased anxiety levels in children at doses of about 3 mg of caffeine per kilogram of bodyweight per day. The anxiety level for children aged 5-12 equates to a caffeine dose of 95 mg per day (approximately two cans of cola) and about 210 mg per day (approximately three cups of instant coffee) for adults.” FSANZ advocates greater regulation of energy drinks.



Key findings from a selection of recent international research articles that have provided impetus for these learning activities include:

Authors

Extracts summarising the main findings reported in the article

Visram, Cheetham, Riby, D. Crossley, & Lake (2016)

From a review of 46 studies from across North America or Europe with participants aged 11–18 years, it was reported that:

- ▶ Patterns of energy drink consumption by children and young people was found to be associated with gender (boys consuming more than girls) and also by activity levels, with the highest consumption observed in the most and least sedentary individuals.
- ▶ Several studies identified a strong, positive association between the use of energy drinks and higher odds of health-damaging behaviours, as well as physical health symptoms such as headaches, stomach ache, hyperactivity and insomnia.
- ▶ Taste and energy-seeking were identified as key drivers. Branding and marketing were found to have a major influence on young people's consumption choices, and a combination of taste, brand loyalty and perceived positive effects ensured their popularity with young consumers.
- ▶ Awareness of possible negative effects was low.

Authors

Extending the findings above:

Visram, Crossley, Cheetham, & Lake (2017)

- ▶ Consumption of soft drinks is decreasing in many countries, but the sale of energy drinks continues to increase, particularly among younger consumers.
- ▶ The lack of a single major factor in participants' consumption choices suggests that addressing the issue will be complex. However, the findings to date provide support for policy-level interventions that aim to change the behaviours of manufacturers and retailers as well as consumers, and actively involve children and young people where possible.
- ▶ Energy drink consumption was often linked to social activities, sports and computer gaming (particularly amongst boys).
- ▶ Participants demonstrated strong brand awareness. The relatively low price of energy drinks and their widespread availability were identified as key factors, along with gender-specific branding and marketing.
- ▶ Some participants demonstrated a critical approach to manufacturers' claims and many were keen to become better informed, often through school- or peer-based interventions.



Authors	A research study of young adults reported that:
Arria, Caldeira, Bugbee, Vincent, & O'Grady (2017)	<ul style="list-style-type: none">▶ Half (51%) of the sample exhibited a 'persistent' pattern of energy drink use across this age range.▶ 'Persistent' energy drink use predicted increased risk for alcohol use disorder at age 25.▶ Both persistent and intermediate energy drink use predicted cocaine use and non-medical stimulant use.

Authors	A Canadian study tracking the impact of dramatically increased energy drink consumption:
Hammond, Reid, & Zukowski (2018)	<ul style="list-style-type: none">▶ Of the 2055 respondents, 1516 (73.8%) reported having consumed an energy drink at some time.▶ Over half (55.4%) of respondents who had ever consumed an energy drink reported that they had experienced at least one adverse event, including fast heartbeat (24.7%), difficulty sleeping (24.1%), headache (18.3%), nausea/vomiting/diarrhoea (5.1%), chest pain (3.6%) and seizures (0.2%). 3.1% had sought or had considered seeking medical help for an adverse event.

Authors	Monitoring the Future (MTF) study 2010–2016, a nationally representative survey of youth in the USA, found that:
Jackson, & Leal, (2018)	<ul style="list-style-type: none">▶ Energy drink/shot consumption was associated with failure to perceive the risk of drug use.▶ Energy drink/shot consumption was associated with failure to disapprove of drug use.▶ Results were most pronounced among habitual energy drink/shot consumers.

All this research takes a cautious approach when making recommendations about safe use of energy drinks by young people. In the absence of extensive research on the health impacts for young people, the authors tend to recommend the 'non-use' message.



The educational approach

Expected prior learning

The following guidance will help students build meaningfully on prior learning, and enhance future learning.

It's recommended that students have prior knowledge of:

- ▶ Wellbeing using the concept of hauora and the four dimensions;
- ▶ Personal, interpersonal and societal (e.g. culture and media) factors that influence wellbeing and the choices people make;
- ▶ The values of respect (for self and others) and fairness;
- ▶ Personal self-management skills and interpersonal communication skills; and
- ▶ Using critical thinking to analyse scenarios and consider different perspectives.

To build on these activities, future topics could include:

- ▶ Alcohol and other drugs: Influences on AoD use; personal, interpersonal, community or societal strategies to minimise harm from AoD use.
- ▶ Advertising and marketing related to body image.

Key findings from these research reports suggest schools should focus their attention on developing students' ability to think critically about the way marketing targets them, and the implications for their wellbeing if they are uncritical of, and susceptible to, media messages and advertising. They can also learn individual and collective ways to make healthier choices and reduce the likelihood of physical and mental harm from energy drinks and future substance use.

The NZC Health and Physical Education (HPE) underlying concepts - hauora, socio-ecological perspective, health promotion, and attitudes and values - have been used across the activities.

An essential aspect of the learning activities involves thinking critically about situations where energy drinks are being marketed directly and indirectly to young people. The following list of critical thinking questions was developed for learning in HPE. These are re-framed and used in various ways throughout this resource.



Critical thinking framework

- ▶ What do you know about this issue or situation?
 - ▶ How did you come to know this?
 - ▶ How do you feel about this issue or situation?
 - ▶ What is the evidence for this knowledge?
 - ▶ What are your beliefs about this knowledge? Why do you believe this?
 - ▶ What information is missing from this picture?
 - ▶ Why is this information missing?
 - ▶ Have the social, cultural, economic, political, and/or ethical aspects of this situation been considered?
 - ▶ Whose voice is heard in this writing, article, or classroom activity?
 - ▶ Whose interests are being served? Who has the power in this situation?
 - ▶ Who is being advantaged?
 - ▶ Who is not being heard or served?
 - ▶ Who is being disadvantaged?
 - ▶ What are the inequalities that exist in this situation?
 - ▶ What needs to change?
 - ▶ How can you contribute to this change?
-

Source: The Curriculum in Action: Making Meaning Making a Difference Years 11-13 (Ministry of Education, 2004, p.27, based on Brookfield, 1995, and Smyth, 1992).

Overview of the activities

These activities prioritise class and group discussion to build knowledge and understanding of energy drinks as a wellbeing issue for young people.

It is likely that minimal time will be available for these activities, so each activity has been designed to take about 30 minutes (with the exception of the optional 'mini inquiry' in Activity 6). To assist with preparation, resource pages are provided for most activities – unless research is a deliberate and integral part of the learning process (as in activity 5). As well as providing an obvious structure and focus for the activity, these resource pages should help minimise the time required to search for specific information, and remove the need for teachers to spend time devising scenarios exploring ideas. However, teachers are encouraged to adapt these resources to make use of situations and ideas presented by students or situations of particular local interest and relevance.

Activity	Main focus for the learning activity
1 What do we mean by 'energy drinks'?	To establish the scope of the activities in this resource, 'energy drinks' are defined - as compared to sports drinks and sugary soft drinks. 30 minutes
2 Analysing energy drink advertisements	Analysing a selected energy drink advertisement using an analysis tool. 30 minutes
3 Advertising to children and young people	Familiarisation with some of the rules from the Advertising Standards Authority Children and Young People's Advertising Code and applying these to an energy drink advertisement. 30 minutes
4 Indirect marketing methods	Using a selection of scenarios provided to recognise a range of indirect marketing methods employed by energy drink (and other) advertisers/promoters, and deciding how fair these are to young people. Note that two versions of scenarios are provided – one resource page contains a diversity of indirect marketing methods, the other focuses specifically on forms of social media marketing. 30 or 60 minutes depending on whether one or both options are used.
5 Energy drinks and wellbeing	Summarising ideas from prior health education learning and the previous activities to identify the mismatch between the marketing, which suggests energy drinks support wellbeing, and actual known impacts on young people's health and wellbeing. 30 minutes
6 Mini inquiry	[Optional – as time and opportunity allow] An idea for building students' capability for inquiry learning. A number of inquiry questions related to energy drink use are suggested, along with an overview of a process to follow. 2-4 lessons plus out of class time to collect data
7 Taking individual action	A range of scenarios involving young people and energy drinks is provided. Groups of students are allocated one or two of these scenarios and then discuss how they could respond as individuals, to promote their wellbeing and the wellbeing of others. They contribute their ideas to the production of a detailed class list of personal and interpersonal actions that can be used to respond to energy drink-related situations. 30 minutes
8 Taking collective action	A range of scenarios involving energy drink marketing is provided. Groups of students map out a plan to show how they would advocate change in one of the situations where the energy drink marketing could have a negative impact on young people's wellbeing. 30 minutes

Resource pages

A number of ready-to-use templates are provided with most of the activities, for use in group and class discussion. All resources can be adapted to make use of student generated ideas, or locally relevant examples. Students should be supported to complete the tasks outlined in these resources, unless there is a particular learning-related reason for them to work independently. Teachers know how their students learn, so they may have better ideas for ways to facilitate these group discussions.

Ideally teachers (and students) will have online access to videos of energy drink advertisements and promotional materials – You Tube is a good source, as are the company websites for the energy drink brands. Examples should be located and viewed before the lessons start, to check for suitability of classroom viewing, and to select examples that are particularly useful for modelling the learning process. Activity 1 suggests a range of brands to source online.

Learning journals

It is recommended that students keep a record of their learning by filing artefacts from the activities in their print-based or digital learning journal (e.g. a completed discussion and activity template, or an image of their group brainstorm or plan). Some activities also include an idea or question for a brief written reflection. Teachers can then use this collection of evidence to make assessment judgements about the level of each student's achievement.

Teacher knowledge, reflection and evaluation

Each activity includes some additional information for teachers, and links to other references. However, this section does not contain a lengthy or exhaustive account of all knowledge required for the activity. When teachers find other useful information or resources, it is recommended that links to these are added to this resource and shared with other teachers in the department.

The teacher reflection and evaluation section contains a succession of questions for teachers to consider as they engage in the 'learning inquiry' phase of the teaching as inquiry process (see NZC effective pedagogy, p35).

Teachers' own attitudes, values, beliefs and health-related behaviours

It is acknowledged that some teachers will use energy drinks themselves, and will make adult decisions about this.

Although the effects of energy drinks on children and young peoples' health is still being investigated, no reports to date suggest they are a healthy choice for this age group. Emerging research suggests that use of drinks containing high levels of caffeine will have detrimental effects on children and young people's physical and mental health, and behaviour.

Teachers are encouraged to reflect on and consider the following questions:

- ▶ Do you believe the impact of energy drinks on young people's wellbeing is a significant cause for concern, and that as a teacher you can have a role in getting students to think critically and understand how they are being marketed to?
- ▶ How might comments made by teachers send messages to students that energy drinks are an acceptable, or even a healthy choice for young people?

- ▶ How might teachers' actions (e.g. being seen drinking energy drinks by their students) send messages to students that energy drinks are an acceptable, or even a healthy choice for young people? Is there potential for setting double standards when it's a case of 'do as I say not as I do' on the issue of energy drinks?
- ▶ How aware are you of the way energy drinks are directly or indirectly marketed to you, as an adult?
- ▶ What is the school's approach to the sale and use of energy drinks by students and teachers at school, and what are the implications of this for promoting consistent messages through the learning programme that you are planning and teaching?
- ▶ What is the school's approach to sponsorship of school events, and if any sponsorship has links to energy drinks (or sports drinks), what are the implications of this for promoting consistent messages through the learning programme that you are planning and teaching?

Curriculum links

The activities in this resource relate to a number of the HPE Achievement Objectives. Whether students are learning and achieving at NZC level 4 or 5 will depend on the depth and sophistication of their ideas. Examples of how these AOs relate to energy drinks are noted below.

HPE Achievement Objectives

4A3 Safety management: Access and use information to make and carry out safe choices in a range of contexts, eg in relation to energy drinks.

5A3 Safety management: Investigate and practice safety procedures and strategies to manage risk situations eg thinking critically about the ways media and other marketing directly and indirectly advertises products like energy drinks to young people.

4A4 Personal identity: Describe how social messages and stereotypes, including those in the media, can affect feelings of self-worth eg marketing devices and advertising messages that appeal to young people, that try to show young people how to be popular.

5A4 Personal identity: Investigate and describe the ways in which individuals define their own identity and sense of self-worth, and how this influences the way they describe other people. Eg, when young people believe and adopt the messages in marketing and advertising – such as energy drink advertising – instead of challenging these messages and deciding what is personally important to their wellbeing.

4C3 Interpersonal skills: Describe and demonstrate a range of assertive communication skills and processes that enable them to interact appropriately with other people, eg when being pressured to drink energy drinks to 'fit in' with friends or peers.

5C3 Interpersonal skills: Demonstrate a range of interpersonal skills and processes that help them to make safe choices for themselves and other people in a variety of settings, eg being directly or indirectly pressured to conform to what peers deem acceptable behaviour, such as what to drink.

4D1 Societal attitudes and values: Investigate and describe lifestyle factors and media influences that contribute to the well-being of people in New Zealand, eg the way energy drink advertisers use role models or recreational situations popular with youth to market energy drinks.

5D1 Societal attitudes and values: Investigate societal influences on the wellbeing of student communities, eg the way student or young people's subcultures or gender (and group behaviours like the use of energy drinks) are influenced by marketing and advertising messages.

4D2 Community resources: Investigate and/or access a range of community resources that support wellbeing. Evaluate the contribution made by each to the wellbeing of community members, eg how the Advertising Standards Authority code for advertising to young people can be used to promote wellbeing.

5D2 Community resources: Investigate community services that support and promote wellbeing and take action to promote personal and group involvement, eg advocating change in the way products are advertised using the ASA code (see below).

4D3 Rights, responsibilities, and laws.

4D4 People and the environment: Specify individual responsibilities and take collective action for the care and safety of other people in their school and in the wider community, eg providing healthy drinks for young people at school.

5D3 Rights, responsibilities, and laws: Identify the rights and responsibilities of consumers and use this information to evaluate health and recreational services and products in the community eg learning how to make a complaint using the ASA code.

5D4 People and the environment: Investigate and evaluate aspects of the school environment that affect wellbeing, and take action to enhance these aspects eg promote the use of healthier drink options at school.

Activity 1

What do we mean by 'energy drinks'?

Purpose and background:

This is an introductory activity to help establish the intended scope of the learning activities in this resource.

The main purpose is to establish an understanding that:

- ▶ Energy drinks typically contain caffeine (or other stimulant ingredients such as guarana – which contains caffeine, taurine or ginseng) intended to increase the drinker's physical and/or mental energy.

These energy drinks are distinct from:

- ▶ Sports drinks which are designed for use by high performance athletes as a quick way to replace fluid, glucose and electrolytes such as sodium, potassium and magnesium lost during strenuous physical activity;
- ▶ Soft drinks which are carbonated water with a sweetener (often a lot of sugar, or sugar substitute) and flavouring; and
- ▶ Other drinks with claimed health benefits like nutritional milk and chocolate-based drinks.

Learning intention and NZC HPE link: Students will demonstrate understanding of what is meant by the term 'energy drinks' and identify reasons why some young people choose to (or not to) drink these. (Contributes understanding to 4A3 and 4D1).

Key competencies: Participating and contributing

Digital fluency: (If required) efficient use of internet sources to find relevant information.

Suggested time: 30 minutes

Resources: Large sheets of paper and pens if the group version of the activity is selected. If required - access to the internet for a quick internet search of terminology.

Teaching and learning process:

1. Ask the students what they have learned about 'energy' in the various subjects they take at school. Eg, in science, students learn that energy can exist in a variety of forms - kinetic (moving), potential (stored), electrical, thermal, mechanical, chemical, or nuclear, and can be transformed from one form to another. In HPE or (food) technology, students may learn about the energy value of food and how macronutrients contained in foods (like fats and carbohydrates) are used by the body for 'fuel' or energy to help it function.

2. Focus their suggestions to those understandings of energy related to food and nutrition. Note that at year 9&10 students will not yet have had access to much learning in science and biology about the complex way energy is converted from chemical (food) energy to heat energy at cellular level – this is senior level learning. Ask students how the amount of energy in food is measured and indicated on food labelling (kilojoules). If students use the term ‘calorie’, refer to the note in teacher knowledge section below.
3. Ask the class for the brand names of some ‘energy drinks’. Accept all ideas and write these on the board. Don’t edit the list at this stage.
4. Ask the students if they think there is a difference between ‘energy drinks’ and ‘sports drinks’ or if they think these are one and the same.
5. Also ask students whether they think soft drinks are energy drinks, and if chocolate and milk based drinks (like Milo) are energy drinks.
6. Explain that there is a recognised difference between these types of drinks and, drawing on what students know, reach an understanding of the definitions in the introduction above.
7. Acknowledge the confusion around the name ‘energy drinks’ and the fact that these caffeinated drinks specifically are called ‘energy drinks’, when the sugar in any form of drink contributes (food) energy. The addition of caffeine - a stimulant - is intended to provide enhanced mental and physical stimulation – so the stimulating effect of caffeine on mental or physical performance is deemed to be ‘energy’.
8. Revisit the list of brand names. Ask: which are ‘energy drinks’ by this definition, which are ‘sports drinks’, and which are soft drinks or other nutritional drinks? If students are not sure, ask them to conduct a quick internet search to help decide which brands relate to which definition. Check what they think they will need to search for, to find out which type of drink each brand is.
9. Establish with the class that the focus for this and the following lessons is specifically about ‘energy drinks’ – that is, those drinks that contain a substantial amount of caffeine (or other stimulant).
10. Ask students if they think ‘energy drinks’ is a useful or helpful term for this group of caffeinated (and usually sugary) drinks – why or why not?
11. To collect initial ideas from students about why they think some young people their age choose to drink energy drinks:
 - ▶ Draw on the board three large concentric circles (alternatively this can be done in groups on large pieces of paper, with responses gathered from the class after group discussion).
 - ▶ In the centre circle write ‘personal/self’, in the middle circle ‘interpersonal’, and in the outside circle ‘community/society’.
 - ▶ Draw a radial line through the middle of the circle to divide all circles in half. Label one side of the divided circles ‘use energy drinks’ and the other ‘not use energy drinks’
 - ▶ Prompt students to provide ideas to answer the question ‘what influences us to use AND not use energy drinks?’. Prompts could include:
 - Personal – individual tastes, the effect of the caffeine on wellbeing (e.g. energy levels), knowledge and beliefs about the healthiness of food and drink, beliefs about what it means to fit in with a group or what it takes to be accepted, etc;

- Interpersonal - pressure from friends to drink or not to drink to be part of the group, 'role modelling' from family and friends (whether they do or do not use energy drinks), etc;
- Societal – advertising and marketing, celebrity endorsements (another form of role modelling), lack of regulation of sales to young people, etc.

12 Conclude the activity by highlighting that the following activities will focus particularly on the way energy drinks are marketed to young people and how this influences young people to drink them.

Extra: If questions and interest extend to the nature of the stimulants in energy drinks – caffeine, guarana, taurine, and ginseng - it may be appropriate to include a brief online search to find out what these substances are and the effects they have on the body (see also Activity 5).

Similarly, if students are aware of energy drink brands that are marketed in ways that highlight their 'natural' ingredients – investigate what this means and question how similar or different these 'natural' substances are to the contents of other energy drinks.

Student learning journal entry / artefacts that provide evidence of learning:

Students record a brief journal entry stating in their own words the difference between energy drinks, sports drinks, and soft drinks - AND reasons why they think teenagers DO or DO NOT choose to drink energy drinks, using ideas from the class discussion.

Teacher knowledge and support resources:

For teacher information: New Zealand brands of energy drinks include V, Demon, Red Bull, NOS, Lift Plus, Monster, Rockstar, and Mother. Internationally and locally there are many other brands and each comes in various flavours and with varying levels of caffeine and sugar, including no sugar (artificial sweetener). Some contain other ingredients such as guarana, the seeds of which are said to contain three times as much caffeine as coffee beans. Some variations of Coca Cola, Pepsi and Mountain Dew (denoted by 'max' or 'energy') contain higher levels of caffeine than regular versions of these drinks and are often listed as 'energy drinks'. 'Health' brands like Berocca use natural guarana which is still caffeine.

Sports drinks include brands such as PowerAde, Gatorade, E2, G Force, Loaded, Mizone. The New Zealand Health Promotion Agency (HPA) has a useful 2-page pdf, [What are sports drinks?](#) (see "Web links" at the end of this document for full URL).

Most students will have some idea that sugar is a source of energy that the body needs to function. By definition, drinks without caffeine, are not 'energy drinks'. The way Milo and other milk or chocolate based drinks are promoted as nutritional, energy drinks may cause some confusion based on the ways these are marketed. If this confusion becomes apparent, support students to make distinctions between the different types of drinks.

Kilojoules and calories: Energy by definition is the capacity or power to do work. Calories and kilojoules are measures of units of energy. 'Calorie' is an old measure and one calorie represents the amount of energy it takes to raise the temperature of 1 gram of water 1 degree Celsius. However, the international scientific community now use SI units (International System of Units) which for energy are joules or kilojoules (kJ). 1 calorie = 4.186kJ. To calculate the kJ content of a food substance, multiply the calorie value by 4.184. Officially the amount of energy in food on all NZ food labelling is reported in kJ.

The persistence of the use of the word 'calorie' related to food and nutrition is arguably due to non-standardised and popular use of the term (e.g. by the diet industry).

Teacher reflection on and evaluation of the activity:

- ▶ What surprised you most about what students knew or didn't know about energy drinks?
- ▶ How much 'brand awareness' did students have of energy (and sports) drinks, eg what did students name first when asked for examples of energy drinks? Did they use brand names as terms that were synonymous with term energy drink (like 'Xerox' means photocopier or 'Google' means to do an internet search)?
- ▶ If students revealed any information about their own use of energy drinks, what concerns did this raise for you in light of the research evidence provided in the introduction?
- ▶ How readily could students identify the factors that influenced their reasons for drinking or not drinking energy drinks?
- ▶ What are the implications of these observations and realisations for the following activities?

Activity 2

Analysing energy drink advertising



Purpose and background:

This activity focuses specifically on the advertising of energy drinks and the ways advertisers influence consumers to buy products. Students will need access to a selection of advertisements that they can analyse, using the prompts in the template provided.

This activity is in preparation for analysing whether or not advertising is compliant with the Advertising Standards Authority (ASA) Children and Young People's Advertising Code (Activity 3), and indirect forms of marketing to young people (Activity 4).

Learning intention and NZC HPE link: Students will analyse energy drink advertisements to determine the ways advertisers try to persuade them to buy the product. (4D1/5D1)

Key competencies: Critical thinking, Using language, symbols, and (visual) texts, Participating and contributing

Digital fluency: Becoming a critical consumer and learning to critique advertising messages.

Suggested time: 30-60 minutes

Resources: Access to a range of energy drink advertisements – print or digital. There are many digital/online sources. Screen shots of these can be taken and printed if facility for projecting advertisements from an internet source, or students viewing these on their own devices, is not possible.

Print or electronic copy of the advertisement analysis template provided on resource pages following.

Teaching and learning process:

1. Explain to students that they are going to select and analyse an energy drink advertisement.
2. Ask students a general question about what they think advertisers do (the methods they use) to 'influence' consumer choices, to appeal to potential consumers, and encourage people to buy a product or service. Ask for a few examples.
3. In their groups, students decide on a specific ad (for any currently advertised product or service aimed at young people) and what it is about the ad that 'appeals' to them as a potential consumer. Prompt students as required with ideas like those in the teacher knowledge section below. Ask for feedback and add more ideas to those already suggested.

4. Explain to the students that they are now going to analyse an energy drink ad in some detail.
5. [Optional] If necessary for supporting students' learning, model the use of the analysis template first. Select and screen an energy drink ad to the whole class. Work them through the template using the prompt questions provided.
6. Students, working in pairs or small groups, then select their own choice of ad and complete the template using their own ideas. The ad can be a static image (like that used in a magazine or on a billboard), or a video.
7. Encourage students to contribute a summary of their analysis to a class discussion.
8. Conclude the activity by asking about recurrent themes or ideas that were common across each group's analysis.

Extra (homework idea): Compare energy drinks, sports drinks, soft drinks, other 'health' drinks, and bottled water, ads – are there differences in the way these products are advertised and marketed to young people?

Student learning journal entry / artefacts that provide evidence of learning:

Students file a copy of their group's analysis template in their learning journal.

Teacher knowledge and support resources:

There are many ways advertisers appeal to potential consumers. Some ideas include: appealing to you on an emotional level; social status and that you're not 'acceptable or part of the 'in crowd' if you haven't got one (using statistics to show you belong if you use a product); exclusivity (scarcity and rarity of a product); celebrity endorsement (and being like someone rich/ famous/ successful), convincing testimonials of satisfied customers; fear of missing out if you don't have this product; suggesting that something is wrong with you if you don't have this product; presenting physically attractive people, or people in target groups that you can identify with (e.g. youth); association of products with having fun; being acceptable or successful; use of humour; romantic or sexual references; sense of thrill and adventure; popular culture appeal (icons and images, phrases and other references to a particular culture or subculture; nostalgia; empathy (because people can identify with something); future benefits if you use a product; brand familiarity and appeal trustworthiness; contrasting what it would be like if you didn't use this product; beauty and attractiveness of the product (as well as the people using it); use of colour; catchy music and jingles; customer loyalty rewards and other promotional incentives.

Teacher reflection on and evaluation of the activity:

- ▶ How readily were students able to recognise the range of methods advertisers use to influence and encourage them to buy the product? What was your evidence for this?
- ▶ What are the implications of this for these activities based around energy drinks, and future activities in other contexts where thinking critically about advertising is a feature of the learning?

Resource page:

Analysis of energy drink advertisement

Brand of energy drink selected for the analysis

Format of ad eg print ad, billboard, video (commercial)

Brief description of the ad – imagery, catch phrases, music, etc

Ways advertisers appeal to potential consumers of a product

Does this feature in the ad you selected?

If yes, how could this method of marketing energy drinks be appealing to consumers and influence a teenager to drink (or not drink) this brand of energy drink?

Visual imagery – use of colour, symbols, logos, icons, that appeal to young people

Use of popular music

Use of slogans or catch phrases

Desirable images such as attractive people or scenery

Celebrity lifestyle or role models– people who are famous and successful

Association with popular activities such as sport or outdoor activities

Association with fast-paced excitement such as extreme sports

Association with other cultural or subcultural groups like gamers or hip hop culture

Appealing to a particular gender – males or females

Appealing to people's social status and acceptance by others

Well-known brand identity and brand awareness (e.g. product names that are instantly associated with energy drinks)

Scarcity or rarity of a product (such as a limited release version of the product)

Use of sexual or romantic images or messages

The offer of other desirable merchandising eg products like a reusable drink bottle, cap, key ring, collector's versions of can design etc

Contrasting use of the product with non-use

The promise of what it will be like if a person uses this product

Other ways this ad appeals to the consumer (add more ideas below)

Activity 3

Advertising to children and young people



Purpose and background:

This activity introduces students to the New Zealand Advertising Standards Authority (ASA) **Children and Young People's Advertising Code** to use as the basis for deciding what is (un)ethical and (in)appropriate about the way energy drinks are advertised and marketed. For familiarity with an energy drink advertisement, it is recommended that students continue to use the same advertisement they used Activity 3.

Learning intention and NZC HPE link: Students will identify the rights of young people as consumers and use this information to evaluate the advertising of energy drink products (5D3).

Key competencies: Thinking, Participating and contributing

Suggested time: 30 minutes

Resources:

Print or electronic copy of the template provided on resource pages following. Note that the template includes a selection of the more relevant clauses from the code. Teachers may decide other rules from the code are more applicable to the advertising the students are analysing and replace the selection in the template.

The complete [Children and Young People's Advertising Code](#) can be viewed online or downloaded as a pdf. The size (6 pages all in tables) and language make it accessible for students with minimal teacher support. (see "Web links" at the end of this document for full URL).

Teaching and learning process:

1. Explain to the students that New Zealand has an official organisation called the Advertising Standards Authority. Part of the work of the ASA includes monitoring the advertising of products to children and young people – 'children' for ASA purposes are under the age of 14, and 'young people' are 14 years old and under 18 years.
2. The task is to put some of the rules of the Children and Young People's Advertising Code to the test, using the energy drink advertisement from the previous activity.
3. Supply each group completing the analysis of the energy drink advertisement in Activity 2 with a template of the ASA rules.
4. [Optional] If necessary to support student learning, briefly model how to use the template, using an example of an energy drink ad.

5. Encourage each group to contribute a summary of their discussion to the class.
6. Ask: What recurring ideas or themes were apparent from each group's feedback?

Student learning journal entry / artefacts that provide evidence of learning:

Students file a copy of their group's template of the evaluation of their selected energy drink ad in their learning journal.

Teacher knowledge and support resources:

Only the rules most likely to apply to energy drinks have been included. Other rules may also be relevant which could add to or replace the rules on this list – use the link above to access the full set of rules in the Children and Young People's Advertising Code. It is not expected that students will develop lawyer-like understandings of these rules, but they should at least gain a surface level understanding about ways some energy drink ads may come close to or actually breach the Children and Young People's Advertising Code.

This task is leading toward students being able to answer future critical thinking questions such as: Who is being advantaged? Who is being disadvantaged? Who is not being heard or served? And what are the inequalities in this situation? Teachers could ask some of these questions as part of this activity.

Teacher reflection on and evaluation of the activity:

- ▶ How well did students engage with this activity?
- ▶ Were they interested in finding out about regulations that relate directly to them? What was your evidence for this?
- ▶ What other conversations did this activity initiate (e.g. about topics other than energy drinks)?
- ▶ Where else in the learning programme could these rules be reused in a different learning context?

Resource page:

Using the **Children and Young People's Advertising Code** to **evaluate the appropriateness of an energy drink advertisement**

Brand of energy drink selected for the evaluation.

Do you think this advertisement targets young people **DIRECTLY** or **INDIRECTLY**, or not at all? Give a reason for your answer.

Extracts from the ASA Children and Young People's Advertising Code

What I think this rule would mean in relation to advertising energy drinks

Thinking about your selected energy drink advertisement, do you think the ad complies with this rule totally, somewhat, or not at all? Give a reason for your response.

Rule 1(b) - Advertisements must not condone, encourage or unreasonably feature behaviour that could be dangerous to copy, unless the purpose of the advertisement is to discourage such behaviour.

Guidance Note: Children must not be encouraged to enter into unsafe situations or strange places or talk to strangers, including, for example, for the purpose of making collections or accumulating labels, wrappers or coupons.

Rule 1(d) - Advertisements must not suggest inferiority or lack of acceptance for not having the advertised product.

Rule 1(f) - Advertising must not employ sexual appeal nor include sexual imagery.

Guidance Note: Children or young people must not be portrayed as sexual beings nor that ownership or enjoyment of a product will enhance their sexuality.

Rule 1(i) - Advertisements (including sponsorship

advertisements) for occasional food or beverage products must not target children or be placed in any media where children are likely to be a significant proportion of the expected average audience.

Guidance Note: Advertisers need to demonstrate that care is taken when evaluating the expected average audience composition prior to the placement of occasional food or beverage advertisements to ensure they are not targeted at children. Measures to determine if children are likely to be a 'significant proportion' of the expected average audience may include one or a combination of the following;

- ▶ Where accurate data exists, 25% or more of the expected audience will be children.
- ▶ Child viewing time zones.
- ▶ Content with significant appeal to children such as programmes, artists, playlists, video, movies, and magazines.
- ▶ Locations where children gather (e.g. schools, school grounds, pre-school centres, playgrounds, family and child clinics and paediatric services and during any children's sporting and cultural events).

Rule 1(l) - Advertisements featuring a promotional offer of interest to children or young people which is linked to food and beverage products must avoid creating a sense of urgency or encouraging the purchase of an excessive quantity for irresponsible consumption.

Guidance Note: Advertising for collection-based promotions must not seem to urge children, young people or their parents to buy excessive quantities of food.

For the avoidance of doubt, there shall be no promotional offers for occasional food and beverage products to children.

Overall summary:

- ▶ Do you think young people are 'advantaged' or 'disadvantaged' by energy drink advertising like this? Give a reason for your response that relates to ideas about wellbeing.
 - ▶ What might be the consequences for wellbeing if a young person (uncritically) believes the messages in energy drink advertising?
-

Activity 4

Indirect marketing methods



Purpose and background:

In addition to product specific advertising, energy drinks are, or have been, marketed indirectly in a number of ways. These include:

- ▶ product placement (where brand named products appear as props in TV programmes or films popular with youth);
- ▶ product give-aways at events or popular recreation areas, often distributed by attractive scantily clad models;
- ▶ brand ambassadors / celebrity endorsements and sponsorship;
- ▶ event sponsorship where the product appears on billboards and event advertising;
- ▶ trucks and vehicles decorated with energy drink branding that travel around popular streets and recreational areas;
- ▶ branded or promotional merchandise and accessories that supports the energy drink product;
- ▶ cross-selling (a sales technique used to get a customer to spend more by purchasing a product that's related to what's being bought already);
- ▶ tie-ins (the sale of one product to a customer on the expressly stated condition that a second product must be purchased), and
- ▶ many different social media marketing methods.

Learning intention and NZC HPE link: Investigate the ways indirect marketing of energy drinks could influence the wellbeing of young people (5D1).

Key competencies: Critical thinking, Using language, symbols, and texts, Participating and contributing

Digital fluency: If the social media option is included, this activity contributes to the development of responsible digital citizenship and becoming a critical user of digital information.

Suggested time: 30 minutes or 60 minutes if social media version of the task is also used.

Resources:

Print or electronic copy of the templates provided on resource pages following. Select scenarios most relevant to the students in the class, and modify the template to include only these.

Teaching and learning process:

1. Pose the question: if advertising (like that analysed and evaluated in the previous activities) is 'direct' advertising, what do students think 'indirect' advertising or marketing includes? Prompt students with ideas from the list above if needed.
2. Explain to them that many product marketers influence consumer choices with methods that are less obvious than the familiar product advertising.
3. Provide students with the template from the resource page. Work through one scenario to model how to answer the questions.
4. Students work in pairs or groups to discuss and respond to the remaining scenarios.
5. Provide the opportunity for the class to feedback ideas to a class discussion.
6. Ask students: overall, what conclusions could you draw about the 'fairness' of indirect marketing when thinking about young people's wellbeing?

Extra: Social media has provided advertisers and product marketers with many more options for indirect marketing. The additional template provided in the resource pages following contains an additional or an alternative list of scenarios for this activity.

Evidence of learning: Student learning journal entry / artefacts

Students file a copy of their group summary of ideas for the scenarios. They then write a brief reflection in their learning journal stating why they think indirect marketing is fair or unfair (with a focus on young people's wellbeing).

Teacher knowledge and support resources:

It is possible that many teachers have not thought about, or have any experience of the many ways marketers target particular audiences to sell products. This is particularly so when the target audience for many products is a younger generation of people who engage in different social activities to adults, congregate in different social settings, and engage in youth-focused aspects of the digital world. Some of these practices are so insidious that many people do not recognise them as deliberate marketing. Teachers need to be prepared to challenge themselves in these situations, as well as challenging their students.

This activity could be reused with a different range of product advertising.

Note that that ASA Children and Young People's Advertising Code Rule 2(d) also states:

"Extreme care must be taken when requesting or recording the names, addresses and other personal details of children or young people, to ensure their privacy rights are fully protected and the information is not used in an inappropriate manner."

"Guidance Note: If advertising indicates that personal information about a child will be collected, or is likely to be collected, then it must include a statement that a parent or guardian's verifiable consent is required. Advertisers must not require a child to disclose more personal information than is reasonably necessary to participate in an activity (e.g. play a game, enter a contest, etc.)."

Source: <http://www.asa.co.nz/codes/codes/new-children-young-peoples-advertising-code/>.

Also, Rule 3(a) states that “sponsorship advertisements must not show an occasional food or beverage product, or such product’s packaging, or depict the consumption of an occasional food or beverage product. Rule 3(b) - Sponsorship advertisements must not imitate or use any parts of product advertisements for occasional food or beverage products from any media.

Guidance Note: Companies or brands can sponsor teams / events / individuals and activities. A clear sponsorship association should be made in sponsorship advertising (e.g. proud sponsor of x).

The focus of a sponsorship advertisement should be on the activity, the team or the sponsored individual.”

Teacher reflection on and evaluation of the activity:

- ▶ How responsive were students to the idea that these various forms of indirect marketing are in some way influencing their product buying choices?
- ▶ Was it difficult for some students to recognise how they were being manipulated to buy certain products? What was your evidence for this?
- ▶ What, if anything, did you find challenging about this activity given your own product purchasing habits?
- ▶ What are the implications of this for future critical thinking activities, especially where media and advertising are involved?

Resource page:

Indirect marketing influences

Scenario

- ▶ How could this influence young people to use (or not use) energy drinks?
- ▶ Do you think this situation is fair to young people? Why or why not?

1. An energy drink company hands out its product to children at a skate park.

2. A school team is given free gear to wear at an event eg an energy drink branded t-shirt or cap.

3. An energy drink branded vehicle drives past schools in a region before and after school, and at break times when students are in the playground.

4. A popular youth-oriented TV programme often features characters consuming energy drink brands.

5. A popular sporting event is sponsored by an energy drink company. The event posters and other merchandising all feature the sponsor's energy drink logo.

6. Sports or entertainment industry celebrities popular with young people accept large contracts to promote energy drink brands.

7. A retail outlet selling a particular product offers a can of energy drink free or at a much-reduced price, as part of an energy drink brand promotion.

8. Add other ideas

Resource page:

Indirect marketing influences (social media option)

Scenario

Imagine you are a social media user and this happens to you ...

- ▶ If these social media marketing methods were used to indirectly advertise energy drinks, how could this influence young people to use (or not use) energy drinks?
- ▶ Do you think this situation is fair to young people? Why or why not?

1. An energy drink marketer posts product-related content every day on the social media pages that you visit
.....

2. (and) These postings regularly include images of the product being used by young people at popular events, or images of celebrities using the product.....

3. (and) You are encouraged to take a selfie drinking a brand of energy drink and post this online.

4. An energy drink product marketer encourages you to post your own review of their product.

5. The social media pages you visit regularly encourage you to use 'social buttons' eg 'likes' for their product.

6. Short clips promoting an energy drink product are often attached to your social media feed and you are encouraged to share these.

7. An energy drink product marketer uses an online 'treasure hunt' promotion which takes you around many sites where their brand is being promoted.

Resource page:

Indirect marketing influences (social media option)

8. The language used by social media marketers in relation to their energy drink advertising promotes a sense of urgency or a fear of missing out, or other psychological tactic.

9. An energy drink product marketer encourages you to provide your email, so you can be among the first to know about a new product launch.

10. Add other ideas

Activity 5

Energy drinks and wellbeing



Purpose and background:

Across the previous activities, students were asked to consider the impact of energy drink advertising in relation to young people's health and wellbeing. This activity pulls together students' ideas about energy drinks and wellbeing to emphasise a health education focus on the matter. Students will need to draw on their own understanding of the concept of hauora to consider advertising claims about the 'benefits' of energy drinks, in contrast to increasing medical and social concerns about young people's use of energy drinks.

The term 'health and wellbeing' is being used deliberately, because much of the research highlighting growing concerns about young people's use of energy drinks is related to biomedical understandings of health, and not holistic understandings of wellbeing which will need to be interpreted from the research data.

It is likely that connections with spiritual wellbeing may become quite abstract in this context. See notes for teachers below.

Learning intention and NZC HPE link: Students will distinguish between advertising and marketing claims, and research evidence about the impact of energy drinks on health and wellbeing. (Contributes to 4/5A3 and 4/5A4).

Key competencies: Critical thinking, Participating and contributing

Digital fluency: (If used) accessing reliable sources of health information

Suggested time: 30 minutes

Resources:

Print or electronic copy of the activity wellbeing template provided. Access to reliable information to complete the hauora grid – either brief (easy to understand) printed material, or online access to information (recommended). Eg, the information contained in the Health Promotion Agency (HPA) 2 page pdf called [Behind the hype: Caffeine](#) is a suitable source of information for students. (see "Web links" at the end of this document for full URL).

Teaching and learning process:

1. Ask students to recall instances in the previous activities where they were talking about particular dimensions of wellbeing (physical, mental and emotional, social, or spiritual) in relation to energy drink use or non-use.
2. Explain that this activity will summarise many of these ideas as well as consider

dimensions of wellbeing that may not have featured much in the discussions so far.

3. Provide groups of four students with a resource sheet, and assign each student two questions that they either need to find an answer to (the physical, mental and emotional wellbeing questions), or suggest an answer to (the social and spiritual wellbeing question). Be prepared to direct students to reputable sources of health information and if necessary, help them to understand what the source is saying. Extra: Encourage students to record the source of their information (e.g. if completing this electronically, copy and paste the URL).
4. Encourage the groups to share some of their ideas with the class, especially the overall questions about the longer-term impacts of use/non-use of energy drinks on wellbeing.
5. (Optional) Debrief: Ask students if they think there is a 'safe' limit of caffeine intake for children, young people (their own age), and adults – or if they saw some recommendations about this as they were completing the activity. Note that current guidance on this matter in New Zealand is that caffeinated drinks of all forms are not recommended for children or young people under the age of 13 (Ministry of Health, 2012, p77). Also, the MoH states that coffee and tea are not recommended for children younger than 13 years. If young people aged 13 years or older drink tea or coffee, it is recommended they limit their intake to one to two cups per day.

How do recommendations about safe limits relate to energy drinks? That is, what would a person (adult) need to know, to decide how many energy drinks they could consume and still remain within a daily maximum recommended intake? eg we would need to know that these recommended limits apply only to adults (at present it is suggested that up to 400 mg/day by healthy adults with adequate nutrition is unlikely to have negative effects – but this does not apply to adolescents or children, and pregnant woman are more susceptible to the negative effects of caffeine).

Also, a person would need to know how to read food labels to see how much caffeine is in an energy drink, they would need to know the recommended daily limit to work out how many drinks came within a safe limit, and they would need to be able to use a guide based on reputable and current research evidence.

Evidence of learning: Student learning journal entry

Students file a copy of their group's completed wellbeing summary in their learning journal.

Teacher knowledge and support resources:

The introductory section of this resource and the reference list offers a range of accessible sources of information about the effects of caffeine and recommended limits for safe consumption (by adults).

Spirituality in this context is likely to require abstract thinking. Spirituality for health education purposes is about a combination of a person's values and beliefs. Eg, what they think is healthy for them; identity – who they are, what's important to them, what defines them (is it important to be seen using products like energy drinks that marketers promote as being desirable); belonging and connectedness; a sense of purpose in life; and that life has meaning for them.

Teacher reflection on and evaluation of the activity:

- ▶ How readily could students apply previously learned knowledge about hauora and the dimensions of wellbeing to the context of energy drinks? Which aspects were more challenging to provide responses for?
- ▶ What are the implications of this for future activities where the concept of hauora features?

Resource page:

Energy drinks and wellbeing

What the advertising and marketing suggests or implies about the use of energy drinks and health and wellbeing.	Dimension of wellbeing	What the research is showing about the impact of energy drinks on health and wellbeing
What claims do the product marketers/advertisers of energy drinks make about the benefits for physical health and performance when a person uses energy drinks?	Physical health and wellbeing	What does medical research about the effects of energy drink use say about the effects on physical health? What is known so far about the health effects for young people using energy drinks?
What claims do the product makers and marketers/advertisers of energy drinks make about the benefits of energy drinks on mental health and performance when a person uses energy drinks?	Mental health and emotional wellbeing	What does medical research suggest are the effects of energy drink use on mental health? What is known so far about the effects on the mental health of young people using energy drinks?
What does energy drink advertising imply about social wellbeing when people use energy drinks?	Social wellbeing	What could be inferred about the use of energy drinks on young people's social wellbeing, as a result of effects on physical and mental health and wellbeing noted above?
What does energy drink advertising imply about spiritual wellbeing when people use energy drinks?	Spiritual wellbeing	What could be inferred about the use of energy drinks on young people's spiritual wellbeing, as a result of the physical and mental effects on health and wellbeing noted above?
If a young person does not think critically about energy drink advertising and marketing messages, and uses energy drinks regularly, what impact could this have on their health and wellbeing in the long term?	OVERALL	If a young person does think critically about energy drink advertising and marketing messages and does not use energy drinks, what impact could this have on their health and wellbeing in the long term?

Activity 6

Mini inquiry



Purpose and background:

This activity is an optional extra and its inclusion in the learning programme will be determined by the time available for learning about energy drinks.

With moves toward cross-curricula and project-based learning in schools, this activity provides a framework of ideas that could be included in an inquiry-based approach to learning whereby students:

- ▶ select a 'topic' based on one aspect of the energy drink issue,
- ▶ pose a wellbeing-related question that could be responded to,
- ▶ collect information that provides evidence to help answer the question, and
- ▶ make recommendations for promoting wellbeing.

As a 'mini inquiry' this activity aims to build skills for future inquiry learning, where students undertake more detailed investigations. The intent is that these mini inquiries would be carried out by groups and shared with the class or wider audience, or that all students in the class would contribute to the same investigation.

Only a basic framework of instructions for teachers is provided here. The activity instructions assume that teachers have some knowledge and understanding of the range of pedagogical approaches needed to develop students' skills for conducting an investigation, and for monitoring student progress with their inquiry (and that they have access to teaching resources that describe these approaches).

A number of topic ideas and inquiry questions for the inquiry are provided, based on the research about young people's energy drink use (see the summary of recent research in the introduction). Teachers should not be limited by these suggestions. The inquiry learning approach may also provide opportunity to extend the focus to other forms of drinks, especially where there is confusion between sports drinks and energy drinks (and high energy/sugary soft drinks). Some of the inquiry ideas may also have cross-subject or cross-curricula possibilities.

Learning intention and NZC HPE link: [This may vary depending on focus for the inquiry]. Students will identify influences on young people's energy drink use or non-use, and make recommendations for promoting wellbeing in relation to energy drink use. (4/5D1 and 4/5D2)

Key competencies: Critical thinking, Managing self and Participating and contributing.

Digital fluency: Locating with efficiency and selecting reputable online information where required. Using digital applications to gather, summarise and present data (as relevant to inquiry).

Suggested time: 2-4 lessons plus time outside of class for data collection.

Resources: Students will need to locate and select resources relevant to their inquiry topic.

The inquiry template provides a basic framework for the process students could use for their inquiry or project. Make use of alternative inquiry frameworks that are more familiar to students at your school.

Teaching and learning process:

1. Explain to the students that they are going to carry out an investigation into an issue related to energy drink use, in groups (or as a class). They will need to identify a main topic or idea, then select an inquiry question related to this topic. The students will then need to design a method to collect information that will help them answer the question (e.g. carry out a school survey or a class analysis).
2. Decide whether the class can come up with their own ideas, or if it helps to provide them with some examples to choose from, or to devise further ideas of their own once prompted by these ideas.
3. Explain that they will need to design one main data collection method to gather evidence to answer their question (e.g. In-person or online survey).
4. Provide support for students to design a suitable data collection tool and process, and to gather data ethically – a range of senior health education resources provide guidance for this.
5. Support students to analyse and summarise their data in a way that allows them to provide a response (or an 'answer') to their inquiry question.
6. Support the students to identify recommendations for improving wellbeing (if the data raises concerns about young people's wellbeing), and/or how to maintain wellbeing (if the data shows positive results). See also activities 7 and 8. Invite students to discuss and note down other thoughts or further questions they might have about their topic.
7. If students are to present their inquiry to the class or other audience, provide guidance about the format and expectations of this presentation.

Evidence of learning: Student learning journal entry

A summary of artefacts from the inquiry process is compiled as evidence of learning eg discussion notes and reflections, survey or interview results, photos, analysis of a media source or event, journal entries/blogs, etc.

Teacher knowledge and support resources:

The success of this activity will depend on students' existing capabilities and teachers' previous experience with school-wide approaches to inquiry based learning. Where possible, make use of resources developed for inquiry-based approaches to learning (frameworks, resources, etc) already in use in the school, as well as expected procedures for students carrying out surveys at school.

A useful overview of approaches to inquiry learning is provided by the New Zealand National Library service. [Approaches to inquiry learning](#) is available online, see "Web links" at the end of this document for full URL.

Teacher reflection on and evaluation of the activity:

- ▶ How skilled were your students at conducting an inquiry-based investigation? That is, the process of identifying a question based around topic of interest, designing a method to collect data that would help to answer this question, analysing the results and drawing conclusions in relation to their question.
- ▶ What are the implications of this for future inquiry-based investigations/project based learning? Which skills in particular require ongoing development?

Resource page:

Energy drinks and wellbeing

The inquiry process	What our group/class needs to think about and decide	What artefact/ evidence will show our thinking and decision making, and what we have done to carry out our inquiry? E.g.:
Planning	<ul style="list-style-type: none"> ▶ What topics related to the use of energy drinks by young people are we interested in? ▶ What do we already know about this topic? ▶ What don't we know about this topic and would like to find out? ▶ What could we find out – considering what is possible and ethical to ask other students? ▶ What is our overall question that we would like to find an answer to? ▶ What are the different ways we could find out this information? (Surveys – in person or online, interviews, etc) ▶ If we had to choose one method, which would it be and why would we choose this method? (Think about what is practical and achievable, as well as what is ethical.) 	<p>Brainstorm sheet or journal notes from group discussion.</p> <p>Our written question (in our learning journals) which is checked by the teacher to make sure it is a suitable question.</p>
Designing and carrying out the investigation	<ul style="list-style-type: none"> ▶ How will we select the questions to ask in our survey (or what we need to do to find or collect the information we need)? ▶ What do we need to know to 'administer' our survey (e.g. use an online survey tool, make a schedule to collect data during lunchtime, arrange for some class time to get information from the class, etc) ▶ What do we need to know in order to conduct our survey (etc) ethically and safely? 	<p>A copy of our survey or interview, or our process for analysing online content, as applicable.</p> <p>Teacher feedback to confirm that our survey (etc) is ethical and OK to use, and that the way we plan to administer the survey is safe.</p>
Results	<ul style="list-style-type: none"> ▶ How will we go about summarising the information we collected? ▶ What is the best method to present this summary to show what we learned? 	<p>Our raw data (filled in forms or spreadsheet downloaded from an online survey tool).</p> <p>A table or graph or other form of infographic of our summarised data.</p>

Conclusion	<ul style="list-style-type: none">▶ How will you answer your inquiry question based on the results of the data you collected?▶ What other thoughts, ideas or questions do you have about your issue that could be further investigated?▶ What recommendations for improving wellbeing do you have (If the data raised concerns about young people's wellbeing) and/or how would you recommend wellbeing be maintained (if the data was positive).	Learning journal entry (or blog/PowerPoint etc as requested by the teacher) with our conclusions and recommendations.
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Resource page:

Inquiry project ideas

Topic ideas – and possible inquiry questions	Method of data collection for the inquiry could include:
Should New Zealand follow the United Kingdom and ban sale of energy drinks to young people under the age of 16?	Carry out a whole school or year level opinion poll using an online survey tool.
Our school does not allow the sale of energy drinks at school but we know students do use them at school. What can we tell about the level of energy drink use based on cans and bottles in the school recycling bins?	Carrying out an analysis of cans and bottle (plastic and glass) in the school recycling bins. Think about the cross-curricula opportunities here.
The research shows that energy drinks are marketed more to males than females, and that more males use energy drinks. Does this apply to students at our school?	Carrying out a quick playground survey by interviewing equal numbers of male and female students to ask questions about their impressions of energy drink advertising and personal use.
The placement of energy and sports drinks in fridges or shelves at supermarkets and dairies are often in full view of young children, along with additional advertising posters, promotional offers, etc. Have you noticed this at supermarkets, dairies and other food retailers you go to and why do you think they are placed there?	Carry out an analysis of local food retailers to find out how visible energy drinks and related promotional materials are to young children – where they are placed in the fridge or on the shelf, what other food products are nearby etc? Perhaps also consider why energy drinks are stored in the fridge (instantly ready to drink).
How aware are students of the way energy drinks are marketed to them through social media (see Activity 4 for ideas)	Carry out a whole class analysis of the way various forms of indirect energy drink advertising (or other similar advertising) appears on students social media pages.
Are students at our school targeted by particular energy brand marketers?	Carry out a playground survey asking students to recall which energy drink brands they have seen advertised near school in the past week. Think of all the ways energy drinks are marketed in public spaces – billboards, cars and trucks with advertising painted on them, promotional material in dairies etc.
Are students confused about the difference between energy drinks and sports drinks – and why this might be an issue?	Carry out a quick playground survey asking students questions about their understanding of 'sports' and 'energy' drinks and their knowledge of the health and wellbeing concerns about these.

Add other ideas

Activity 7

Taking individual action



Purpose and background:

Developing knowledge and skills to know how to act in a range of life situations to support one's own wellbeing, as well as that of others, requires learning. This activity assumes students have previously learned a range of personal self-management and interpersonal communication skills that can be applied in various combinations to the scenarios presented in this activity.

Learning intention and NZC HPE link: Students will personally use information to make and action safe choices and identify strategies to manage risk situations involving energy drinks (4/5A3).

Students will demonstrate a range of assertive communication skills that enable them to interact appropriately with other people and help them to make safe choices for themselves and other people in situations involving energy drinks (4/5C3).

Key competencies: Relating to others, Managing self.

Suggested time: 30 minutes

Resources: Print or digital copy of the resource sheet – teachers may wish to select a combination of scenarios for the activity and adapt/replace some of the examples with situations that arise during class discussion.

Teaching and learning process:

1. Ask students to recall examples of personal strategies or actions they can use themselves to support their own wellbeing. Make a list of these on the board.
2. Ask what strategies they can recall learning about, that could be used when communicating (interpersonally) with another person? Add these to the list.
3. In addition to these communication skills, what could they do to support the wellbeing of someone else? Add these to the list.
4. Acknowledge that during these activities focused on energy drinks, a number of situations have emerged where it would be necessary for young people to know how to act in ways that support their wellbeing – recall some actual examples.
5. Explain that they will work in groups to decide what action to take and why, in a range of situations.

6. Provide each group with print or digital copies of the template and assign two or three situations to each group (they don't need to individually complete all of the scenarios on the list). Allow time for the group to discuss their allocated scenarios and answer the questions on the template.
7. Provide the opportunity for commenting on responses to a variety of the scenarios and arrange for each group to contribute their ideas to a master copy of the template. Distribute the list of ideas electronically so students can file these actions and strategies in their learning journal, or print off the list and display them on the classroom wall for reference.

Evidence of learning: Student learning journal entry

(Paper based journal) Some examples of what students think they would do in a selection of situations is recorded on the template and filed in their learning journal, or the electronic master copy of responses from the whole class is filed in their e-journal.

A brief response to the following questions is added: Which one of these actions do you think will be easy for you to carry out and why? Which of these actions would you find most difficult to carry out and why? What else would you need to learn to do to carry out this action?

Teacher knowledge and support resources:

Lists and examples of personal and interpersonal skills are available in many health education teaching and learning resources. See for example the NZHEA 2017 [position statement on health promotion](#) (see "Web links" at the end of this document for full URL).

For online safety strategies that protect the privacy of individuals, see the [Netsafe website](#) (see "Web links" at the end of this document for full URL).

Teacher reflection on and evaluation of the activity:

- ▶ How readily were students able to transfer learning about personal and interpersonal actions and strategies from other contexts to situations involving energy drinks? What is your evidence for this?
- ▶ What are the implications for future learning when students will need to apply this knowledge and understanding (and demonstrate) personal and interpersonal skills in other learning contexts?

Resource page:

Personal and interpersonal skills to safely manage situations involving energy drinks

Scenarios

Imagine YOU are the person in each of these situations.

- a) What could YOU do in this situation to help restore or maintain the wellbeing of yourself and/or the other person?
- b) Why would you take this particular action or use this particular skill (and not some other action)?
- c) How would it support the wellbeing of you and/or the person indicated in the scenario?

1. You've got into the habit of having an energy drink after school to keep you alert while doing homework. However, you later have trouble getting to sleep.

2. Your friend drinks 2-3 cans of their favourite energy drink every day. You've noticed that it changes their mood and concentration which makes it difficult to work with them in class.

3. You prefer to drink water to stay hydrated, but others in your class 'swear by' the benefits of energy drinks. It becomes apparent that the students in the class who use energy drinks regularly consider themselves the cool/'in' group and put down anyone they see drinking water or non-energy drinks because those drinks are 'just for kids'.

4. You are hanging out with friends at a local park that is popular with young people, and many children play in the playground area of the park. An energy drink promotion company is handing out free cans or bottles of their product to anyone who wants one, along with vouchers and other merchandising.

5. An energy drink promotion pops up when you're on social media asking you to 'like' their product, and to take an amusing selfie drinking their product and post it online.

6. You see a group of children are choosing drinks in your local dairy. They are discussing which brand of energy drink each of them will choose.

7. You're at a party and some of the 'hard out' drinkers are pressuring you to an energy drink mixed with alcohol.

8. It's lunchtime and your friends are debating which brand and which flavour energy drink is the best.

9. You are aware that a friend of yours uses energy drinks so they can stay up late playing video games.

10. Add other ideas

Activity 8

Taking collective action



Purpose and background:

Adding to the individual actions (both personal and interpersonal) in Activity 7, this activity considers the ways students can act collectively to change the way energy drinks are marketed directly or indirectly to young people. Most of these actions require some form of advocacy – making a case to change the way something is done by requesting that those with the authority to make changes do so, based on the evidence (or ‘case’) provided.

If there is opportunity to carry out a mini inquiry (Activity 6), this may extend into actually taking some form of collective action at school related to reducing the amount of energy drinks consumed by students, or requesting that a company changes the way it markets energy drinks to students.

Learning intention and NZC HPE link: Students will prepare to take collective action for the care and safety of other people in their school and in the wider (community (4D3/5D3)).

Key competencies: Critical thinking, Relating to others

Suggested time: 30 minutes or longer if developed into an actual collective action.

Resources: Print or digital copy of the resource sheet – teachers may wish to select a combination of scenarios for the activity or adapt/replace some of the examples with situations that arise during class discussion, or link the scenario with the mini inquiry.

Teaching and learning process:

1. Explain to students that this activity continues from, and extends the personal and interpersonal actions in Activity 7. This time the focus is on how groups of students can act ‘collectively’.
2. Ask students what they think ‘collective’ action might mean. Establish understanding that it’s about each person contributing something to the same action for a common good – where everyone benefits. ‘Collective’ in this sense means something done by people acting as a group.
3. Ask students if they know what ‘advocate’ means. Develop the idea that it is a situation whereby a person or group of people publicly support or recommend a particular cause, or when a person puts forward a case on someone else’s behalf.

4. Ask students what they think would need to happen to persuade an energy drink marketer (an ad agency or product promotion company) to change the way they do things. Students' ideas could include carrying out a survey of public opinion or asking people to sign a petition, then presenting the findings to the company, pointing out concerns expressed by many people and asking them to change the way they do things; or using the advertising code (Activity 3) and making a complaint to the ASA about the company. These actions are all forms of advocacy.
5. Select one scenario from the list on the resource page and model how to respond to each of the questions 1-3. Clarify what rights and responsibilities are (eg, example in relation to the ASA code).
6. Allocate one scenario to each group of students to discuss, and devise a suggested collective action for the scenario.
7. Ask each group to 'draw' a plan of the main steps of their collective action based on their responses to the questions (a flow chart or similar) to show what needs to happen to protect or promote the wellbeing of the young people in the situation.
8. Provide the opportunity for each group to present their plan to the class.

Evidence of learning: Student learning journal entry

Students take an image of their plan and file it in their learning journal (digital or print copy).

Brief responses to the following questions are added: Why do you think collective action can be harder to achieve? Successful collective action is usually more sustainable (long lasting). Why do you think this might be the case?

Teacher knowledge and support resources:

An extended discussion on health promotion, including collective action, is provided in the NZHEA 2017 [position statement on health promotion](#) (see "Web links" at the end of this document for full URL).

Teacher reflection on and evaluation of the activity:

- ▶ How readily could students see the purpose and value of collective action? What was your evidence for this?
- ▶ Is there anything they struggled to grasp?
- ▶ What are the implications of this for future learning in new contexts where collective action is a consideration?

Resource page:

Collective action to promote wellbeing in relation to the use of energy drinks

For your selected situation, answer the following questions and then prepare a 'diagram' of the steps you would take as part of a collective action to try and change the situation and promote the wellbeing of young people.

- ▶ How is this situation (potentially) affecting the wellbeing of the young people in the scenario?
- ▶ What are young peoples 'rights' and 'responsibilities' in this situation'?
- ▶ How could a group of students act collectively to try and change this situation? What would they need to do? Who would they need to approach, to change the way things are done?

Situations

1. A group of students are aware of the way an energy drink company uses 'product placement' to promote their product through a popular local youth-oriented TV programme.

2. An energy drink company use sports celebrities who are popular with children and young people to promote and endorse their product.

3. An energy drink company are regularly seen driving their promotion vehicle covered in brand advertising near schools - before and after school and during break times.

4. An energy drink company is a major sponsor of a sporting or other cultural event that many young people are involved with.

5. An energy drink promotion company is handing out free cans or bottles of their product to anyone who wants one at a popular local recreation area. The female 'models' handing out the drinks are scantily dressed and flirt with the males they are giving the energy drinks to.

6. Most of the most popular (locally available) energy drink brands market to males and feature male-dominated activities like extreme sports, very physical sport, or subcultures like gaming.

7. An energy drink company was able to get their ads screened during a popular youth-oriented TV series.

8. A local dairy displays its energy drinks and promotional material in full view of young children – children have go past all of the colourful energy drink containers in the dairy's refrigerator to find the drinks more suited to them.

9. To promote its product, an energy drink company provides free or inexpensive merchandising that's popular with young people (but is less popular with the adults that feature in their ads).

References

Introduction

Government ministry and NGO references:

Ministry of Health (2012). *Food and Nutrition Guidelines for Healthy Children and Young People (Aged 2–18 years): A background paper*. Partial revision February 2015. Wellington: Ministry of Health is available at <https://www.health.govt.nz/system/files/documents/publications/food-nutrition-guidelines-healthy-children-young-people-background-paper-feb15-v2.pdf> (see Section 13.8)

Health Promotion Agency (HPA) *Behind the hype: Caffeine* is available at https://www.nutritionandactivity.govt.nz/sites/default/files/2%202%20NPA161%20Behind%20the%20Hype-Caffeine_5.pdf

Ministry of Primary industries (2012) statement on caffeine is at <https://www.mpi.govt.nz/dmsdocument/3569/loggedIn>

Food Standards Australian New Zealand (FSANZ) statements on caffeine can be accessed at <http://www.foodstandards.gov.au/consumer/generalissues/Pages/Caffeine.aspx> and <https://www.foodstandards.gov.au/code/fofr/Documents/Caffeine%20July%202014.pdf>

Recent research articles cited in the introduction:

Arria, A. M., Caldeira, K. M., Bugbee, B. A. Vincent, K. B., & O’Grady K.E. (2017). Trajectories of energy drink consumption and subsequent drug use during young adulthood. *Drug Alcohol Depend.* 179, 424–432. DOI: <https://doi.org/10.1016/j.drugalcdep.2017.06.008>

Access this article at: <https://www.ncbi.nlm.nih.gov/pubmed/28797805>

Hammond, D., Reid, J.L. & Zukowski, S. (2018). Adverse effects of caffeinated energy drinks among youth and young adults in Canada: a Web-based survey. *Canadian Medical Association Journal (CMAJ) Open* 6(1), 19-25. DOI:10.9778/cmajo.20160154

Access this article at: <https://www.ncbi.nlm.nih.gov/pubmed/29335277>

Jackson, D.B, & Leal, W.E. (2018). Energy drink consumption and the perceived risk and disapproval of drugs: Monitoring the Future, 2010–2016. *Drug and Alcohol Dependence* 188, 24-31. <https://doi.org/10.1016/j.drugalcdep.2018.03.022>

Access this article at: <https://www.sciencedirect.com/science/article/pii/S0376871618302199>

Visram, S., Cheetham, M., Riby, D. M. Crossley, S.J., & Lake, A.A. (2016). Consumption of energy drinks by children and young people: a rapid review examining evidence of physical effects and consumer attitudes. *British Medical Journal Open*, 6(10) doi:10.1136/bmjopen-2015-010380

Access this article at: <https://www.ncbi.nlm.nih.gov/pubmed/27855083>

Visram, S., Crossley S.J., Cheetham M, & Lake A. (2017). Children and young people’s perceptions of energy drinks: A qualitative study. *PLoS ONE*, 12(11): e0188668. <https://doi.org/10.1371/journal.pone.0188668>

Access this article at: <https://www.ncbi.nlm.nih.gov/pubmed/29190753>

Other references in the introduction:

Ministry of Education (2004). *The Curriculum in Action: Making Meaning Making a Difference Years 11-13.* Learning Media: Wellington. Access the text for this book at <http://health.tki.org.nz/Key-collections/Curriculum-in-action/Making-Meaning>

For more information about the purpose of critical thinking in HPE read the statement accompanying these critical thinking questions at <http://health.tki.org.nz/Key-collections/Curriculum-in-action/Making-Meaning/Teaching-and-learning-approaches/Importance-of-critical-thinking>

Ministry of Education (2007). *The New Zealand Curriculum.* Wellington: Learning Media. Access this document at <http://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>

Activity 1 - What are energy drinks?

The New Zealand Health Promotion Agency (HPA) has useful 2-page pdfs *Behind the hype: Caffeine* available at https://www.nutritionandactivity.govt.nz/sites/default/files/2%202%20NPA161%20Behind%20the%20Hype-Caffeine_5.pdf

What are sports drinks? Is available at https://www.healthed.govt.nz/system/files/resource-files/NPA047_Behind_the_hype_sports_drinks.pdf

Activity 3 - Advertising to young people

Advertising Standards Authority (ASA) Children and Young People's Advertising Code is available at <http://www.asa.co.nz/codes/codes/new-children-young-peoples-advertising-code/> - a pdf version of the complete code is available from this link.

Activity 4 - Indirect marketing

Ideas about the ways marketers use social media were developed from the blog *12 Social Marketing Strategies to Grow Your Online Sales*, by Mark Hayes (2013) <https://www.shopify.co.nz/blog/7900695-12-social-marketing-strategies-to-grow-your-online-sales>

Activity 5 - Energy drinks and wellbeing

The Ministry of Health (2012) statements are from *Food and Nutrition Guidelines for Healthy Children and Young People (Aged 2–18 years): A background paper.* Partial revision February 2015. Wellington: Ministry of Health available at <https://www.health.govt.nz/system/files/documents/publications/food-nutrition-guidelines-healthy-children-young-people-background-paper-feb15-v2.pdf>

Further guidance on limits for adults is from the Mayo Clinic <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/caffeine/art-20045678>

Activity 6 - Mini Inquiry

The source for 'Should NZ follow the UK and ban sale of energy drinks to under-16s? is <https://www.stuff.co.nz/national/health/100828520/should-nz-follow-the-uk-and-ban-sale-of-energy-drinks-to-under16s>

Activity 7&8 (Individual and collective action)

NZHEA 2017 position statement on health promotion available at <https://healtheducation.org.nz/resources>.

Web links

Approaches to inquiry learning: <https://natlib.govt.nz/schools/digital-literacy/supporting-inquiry-learning/approaches-to-inquiry-learning>

What are sports drinks? https://www.healthed.govt.nz/system/files/resource-files/NPA047_Behind_the_hype_sports_drinks.pdf

Children and Young People's Advertising Code: <http://www.asa.co.nz/codes/codes/new-children-young-peoples-advertising-code/>.

Behind the hype: Caffeine: https://www.nutritionandactivity.govt.nz/sites/default/files/2%202%20NPA161%20Behind%20the%20Hype-Caffeine_5.pdf

Approaches to inquiry learning: <https://natlib.govt.nz/schools/digital-literacy/supporting-inquiry-learning/approaches-to-inquiry-learning>

Position statement on health promotion: <https://healtheducation.org.nz/resources>.

Netsafe website: <https://www.netsafe.org.nz/>