**ACTIVITY: Unpacking innovation**

**Activity idea**

Understanding the concept of innovation is a key step in developing students’ innovation literacy. In this activity, students identify key aspects of what’s involved in innovation and illustrate these with examples from our innovation content.

By the end of this activity, students should be able to:

* list key aspects of innovation (idea, process, outcome, creating value)
* discuss each of these aspects in relation to the development of a product
* retell the story of the development of the product, focusing on the key aspects of innovation.

The activity involves thinking, reasoning and explaining and can be adapted to fit class ability and interests. It can be modified to explore any innovative product.

[Introduction/background notes](#Introduction)

[What you need](#need)

[What to do](#Do)

Student handout: [Understanding innovation](#Handout)

**Introduction/background**

In today’s world, ‘innovation’ has become a common term. A Google search produces lots of definitions for innovation and lots of discussion about what it is. So how do you help students recognise what innovation is? One way is to identify key aspects of what’s involved in innovation and then illustrate these with examples from a relevant product.

This activity uses our innovation content as examples of products. Using video clips and innovation key terms, students are asked to identify key aspects of innovation and then provide examples from one of our innovation content.

This is an activity for developing students’ understanding of the concept of innovation and for developing students’ innovation literacy. The aim is for students to be able to apply this understanding when looking at or reading about items described as being ‘innovative’ or ‘an innovation’ and to see how and why they fit (or don’t fit) these terms.

The activity involves thinking, reasoning and explaining and can be adapted to fit class ability and interests. It can be modified to explore any innovative product.

**What you need**

* Access to the [About innovation](http://link.sciencelearn.org.nz/videos/1018-about-innovation) video
* Access to the [Innovation key terms](http://link.sciencelearn.org.nz/resources/1698-innovation-key-terms)
* Access to the videos story in each of our innovation content
  + [The biospife story](http://link.sciencelearn.org.nz/videos/772-the-biospife-story)
  + [The FOODBOWL story](http://link.sciencelearn.org.nz/videos/956-the-foodbowl-story)
  + [The Revolution Fibres story](http://link.sciencelearn.org.nz/videos/964-the-revolution-fibres-story)
  + [The YikeBike Story](http://link.sciencelearn.org.nz/videos/770-the-yikebike-story)
  + [The Zealong Tea story](http://link.sciencelearn.org.nz/videos/947-the-zealong-tea-story)
* Access to the images of the products featured in our innovation content
* Examples of the products featured in our innovation content if they are accessible
* Copies of the student handout [Understanding innovation](#Handout)

**What to do**

***Introduce innovation***

1. As a class, watch the [About innovation](http://link.sciencelearn.org.nz/videos/1018-about-innovation) media experience.
2. Ask your students to consider what the key aspects of innovation are. The following questions might be useful prompts:

* How would you recognise an innovative product?
* What features would you look for to decide if a product is innovative or not?

1. Showing your students some examples of innovative products might also be useful. You might like to use images from our [Innovative products gallery](http://www.pinterest.com/nzsciencelearn/slh-innovative-products-gallery/) Pinterest board or from our innovation content.
2. Record words and phrases from the discussion. Can your students narrow their terms and phrases down into key aspects of innovation?
3. Introduce the description of ‘innovation’ from the [Innovation key terms](http://link.sciencelearn.org.nz/resources/1698-innovation-key-terms) article.
4. Compare the key words in this description with the words that you’ve noted down. Hopefully, you’ll have uncovered the four key aspects – idea, process, outcome, creating value – as these are the ones we’ll use for the remainder of this activity.

***Introduce the product***

1. Introduce the products featured in our innovation content. Show them an image and the physical object if accessible.

***Unpacking the innovation***

1. Have the class break into smaller groups and allocate a different innovationstory to each group.
2. Give each group a copy of the student handout [Understanding innovation](#Handout) to complete and have students watch the video story in their allocated innovationstory.
3. Ask them to discuss the innovationstory and to fill out details in the boxes.
4. If they need more information, refer them to the research article for the allocated ***Innovation*** story (this is the first article in each story).

***Presenting back to the class***

1. Ask each group to prepare a presentation telling the innovationstory in their own words using the notes they’ve made on the student handout.
2. Encourage your students to be creative and use digital presentation tools that they are familiar with.
3. Each group presents back to the class.

**Student handout: Understanding innovation**

***The idea***

Describe the idea.

What was the opportunity, the need or the problem that prompted the idea?

***The process***

Describe some of the key elements in the process of turning the idea into an outcome.

What skills, knowledge, abilities were important?

Who was involved?

What challenges were faced?

***The outcome***

Describe the outcome.

What did the innovator set out to do?

What did the innovator achieve?

Was the outcome developed from a new idea or is it an improvement of an existing idea?

***Creating value***

Who was the product designed for?

How does this product create value?

Is the product commercially available?

Has the product been successful in making a difference to people’s lives?