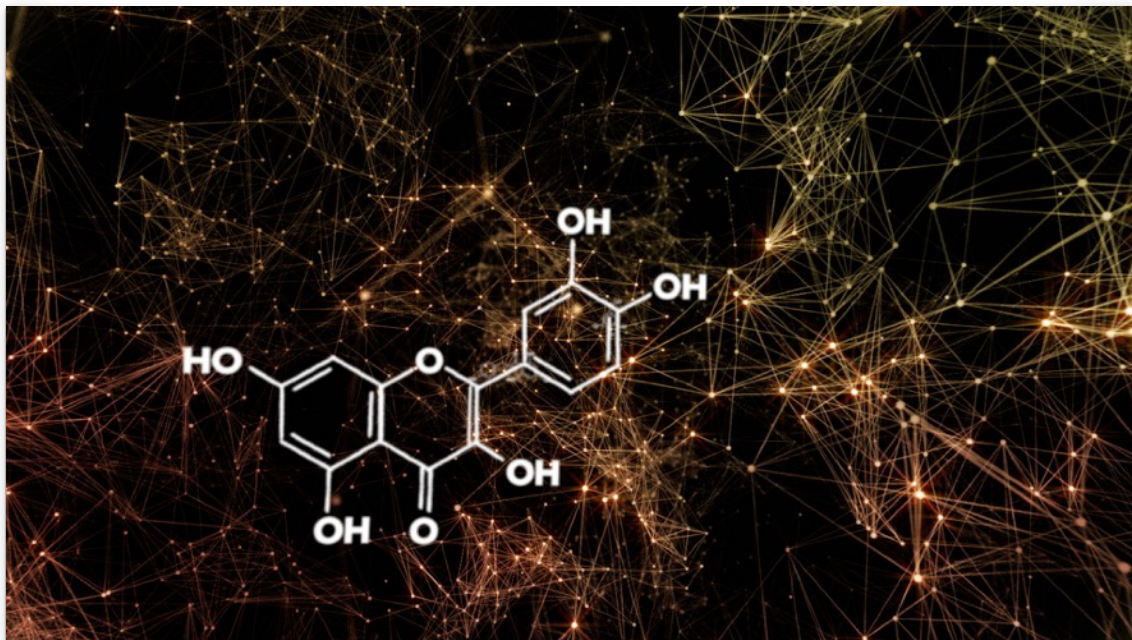


# VITAMANIA

Years 7-10 SCIENCE SAMPLE LESSON PLAN



*Pictured: Quercetin is a phytochemical responsible for the bitter taste in some vegetables*

Download the full film and complete *Vitmania* Education Kits at  
[www.vitmaniathemovie.com/learn](http://www.vitmaniathemovie.com/learn)

Use the code 'learn' at checkout to get **30% off**

OR

Australian schools who are registered with Screenrights  
can watch the film on [EnhanceTV](#) or [Clickview](#)

We'd love your feedback!

Please drop us a line at [info@genepoolproductions.com](mailto:info@genepoolproductions.com)  
or on [Facebook](#) & [Twitter](#): @vitmaniamovie

## Lesson Plan #1

# Vitamin Profiles

### Concept

Most people know that vitamins are an essential daily requirement for a healthy life, but few people really know how or why. Vitamins need to be examined individually to understand and appreciate their differences and specific importance to our bodily functions. Analysing vitamins individually helps to interpret biological events and chemical reactions that need to occur in the body to maintain good health.

### Learning objectives

For students to know and appreciate that vitamins are essential to life.

For students to recognise the 13 vitamins we require for a healthy life and that they can all be found in our food.

For students to understand the chemical nature and function of the essential 13 vitamins in human health.

### Curriculum Pointers

#### Years 7-8

- Mixtures, including solutions, contain a combination of pure substances that can be separated using a range of techniques [ACSSU113](#)
- Differences between elements, compounds and mixtures can be described at a particle level [ACSSU152](#)
- Chemical change involves substances reacting to form new substances [ACSSU225](#)
- Cells are the basic units of living things; they have specialised structures and functions [ACSSU149](#)
- Multi-cellular organisms contain systems of organs carrying out specialised functions that enable them to survive and reproduce [ACSSU150](#)

#### Years 9-10

- Multi-cellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment [ACSSU175](#)

- All matter is made of atoms that are composed of protons, neutrons and electrons; natural radioactivity arises from the decay of nuclei in atoms [ACSSU177](#)
- Chemical reactions involve rearranging atoms to form new substances; during a chemical reaction mass is not created or destroyed [ACSSU178](#)
- Different types of chemical reactions are used to produce a range of products and can occur at different rates [ACSSU187](#)

## Preparation

- Watch the free online videos in the activities below before your class
- Whiteboard and marker pens
- An A3 sheet of paper or computer for each student to create poster
- Internet access

## Duration

2 x 45 minutes

## Activity 1

What is a vitamin?

Begin this lesson with a fast fact brainstorming session to glean students' knowledge of what vitamins are and how much we need for a healthy life.

—> Play video “Vitamins: How much is enough?”

<https://www.vitamaniathemovie.com/vitamins-how-much-is-enough/>

Write up student verbal contributions on a white board. Create a list or bubble-map on the board for all to see. Observe and discuss the complexity of how we consume and absorb vitamins into our body.

—> Play video “Vitamin A and Carrots - A Complex Molecular Dance”

<https://www.vitamaniathemovie.com/animation-vitamin-a/>

Conclude this brainstorming session with students arriving at an agreed overarching definition, such as:

Vitamins are chemicals compounds we need in small amounts that are essential for life. Without them we get sick and die.

## Activity 2

—> Play video “The Food Matrix: Good Nutrition Is So Much More Complex Than We Think”

<https://www.vitamaniathemovie.com/food-matrix/>

Have students create a vitamin profile poster. This poster could take the form of an illustrative diagram or a text based table.

Direct students to use the free resources supplied on the *Vitmania* website ([www.vitamaniathemovie.com/extras](http://www.vitamaniathemovie.com/extras)) as a reference to find further information and practice their research skills.

Students supply researched facts relating to each of the 13 essential vitamins.

In developing the profiles, students should source information on each vitamin about:

- Common natural sources
- Roles in health and wellbeing
- Consequences of deficiency
- Potential dangers
- Recommended daily intakes

Share, compare and display student posters to enable continued class discussion.

## Learning outcome

At the end of this lesson students should have a good understanding of what vitamins are and should be able to reproduce important information about every vitamin. They will know that vitamins are naturally occurring, that vitamins can be easily and readily consumed. Students will appreciate the role vitamins play in contributing to a healthy life and be able apply this knowledge to their own lives.