

Life Processes: Nutritional requirements and daily intake

WHAT ROLE CAN MILK PLAY IN A BALANCED DIET?

ESSENTIAL QUESTION

What would happen if we only had five foods to choose from?

WHAT ARE WE LEARNING?

- The human body needs the right balance of nutrients to be healthy
- Foods provide nutrients that help different parts of the body function
- The place of milk in a balanced diet

TRY THIS WITH

- Years 4 - 8
- Students who have an interest in food and nutrition
- Students who love using their imaginations to solve problems

FIND

- List
- Summarise
- Explain
- Recognise
- Discuss
- Classify

Ask students what they think would happen if we just ate hamburgers or just lettuce?

Explain that humans need a balance of the right nutrients to grow, be strong and stay healthy.

Support the students to understand the concept of a recommended daily intake. This [Daily Intake](#) information is a good place to start.

Identify which nutrients a human needs to consume each day to stay healthy.

Discover the breakdown of the main nutrients in milk and which parts or functions of the body these help using the [About Milk](#) Fact Sheet.

Investigate, and record on a Popplet, the nutrients in broccoli, spaghetti, bananas and chicken. Which parts or functions of the body do these foods help?



APPLY

- Calculate
- Plan
- Reason
- Analyse
- Select
- Solve

Tell students they are astronauts going on a five year mission to Mars. Unfortunately someone forgot to load all the food onto the spaceship. The only foods they will have for the next five years are broccoli, chicken, rice, bananas and milk. There is also a small amount of chocolate and basic pantry supplies in the form of eggs, flour and oil.

Using the SpringPad or Food on the Table apps, plan two daily menus that provide the correct nutrients, in the right quantities, recommended for an average adult's daily intake.

Ask students to take into account repetition - five years is a long time.

Think about combinations of food and how reactions might change over time.



PRODUCE

- Create
- Compose
- Imagine
- Hypothesise
- Evaluate
- Integrate

Watch a selection of space movie snippets where characters are reporting back to earth. [This list](#) of outer space movies provides a good starting point.

Report back to Mission Control on the 'food situation' at various times during the five years.

Create each report as a video transmission or podcast which includes; a description of how the food is being used, new developments in terms of recipes, surprisingly delicious combinations and an explanation of how the daily menu is ensuring the recommended daily intake of the astronauts.

Choose a spectrum of time points to report on (e.g. Day 5, Day 365, Day 730 etc.)

Reflect the imagined realities of this situation - there should be some funny and probably gross stories.

View each group's reports and share the challenges of creating the menus.



SUCCESS CRITERIA

Students can check they have completed the task successfully by:

- Ensuring their daily menus approximate the recommended daily intake
- Creating reports that include imaginative details about dealing with the 'food situation'
- Using the breakdown of nutrients in each of the foods to help create each day's menu

PRINCIPLES	VALUES	KEY COMPETENCIES	LEARNING AREAS	WORD BANK	RESOURCES REQUIRED
Inclusion Coherence	Excellence Innovation, inquiry and curiosity	Thinking Using language, symbols and texts Participating and contributing	Mathematics and statistics Physical education and health	Design Principle Function Innovative	Kellog's Daily Intake webpage About Milk Fact Sheet List of outer space movies