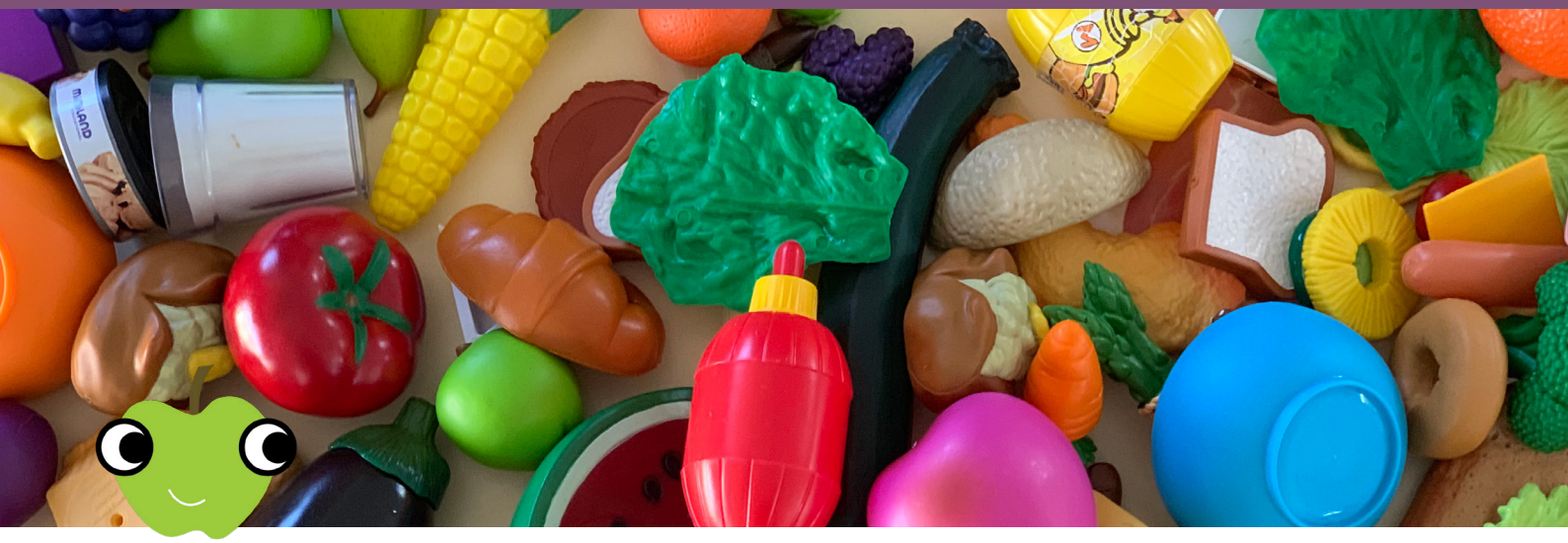
Eating Energetics



Fuel for life

KLAs: Science, PDHPE	LESSON TOPIC: Nutrition
YEAR LEVEL: K-10	DURATION OF ACTIVITY: 45 minutes

Just like cars, our bodies need fuel to run! The energy we take in as food, and that we use up through everyday activity and exercise, represents an equation that we can balance for our bodies are to stay healthy. This activity explores how the different foods we eat contain different amounts of energy, as well as different nutrients that we need for our bodies to work at their best. Students will take part in a calorimetry experiment, releasing and measuring the chemical energy found in different types of food. They will also assemble their favourite meals and, after engaging with the Australian Guide to Healthy Eating, fine-tune these to reflect a more balanced diet.

SYLLABUS LINKS

This activity aligns with and extends concepts and content within the K-6 Science and Technology and PDHPE syllabuses, as well as the 7-10 Science, Mathematics and Food Technology syllabuses.

The science focus is on working scientifically and the PDHPE focus in Years K-6 relates to the Healthy, Safe and Active Lifestyles strand.

LEARNING OUTCOMES

Students will:

- Develop an understanding of energy transfer from food into the body, and that different types of food release different amounts of energy
- Recognise that different foods provide the body with different nutrients that we need to stay healthy
- Appreciate the importance of balance when choosing what foods to eat

EXPLORATORY AND PLAY-BASED COMPONENTS

Primary students will explore calorimetry to discover the energy released from foods before creating their own favourite meals from a selection of play food. We will also work together to explore food selection and discuss balancing the different types of food we eat.

Secondary students will explore the energy released from different foods with a collaborative hands-on calorimetry experiment, and justify food selection and healthy eating guidelines based on these results.

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