Sustainable biomes

## Focus

Food security

## Overview

Duration – 3 lessons

## Content

Students

* investigate the capacity of the world’s biomes to achieve sustainable food security for Australia and the world, for example:
	+ discussions of the potential for Australia to contribute to global food security.

### Stage 5 outcomes

A student:

* analyses the effect of interactions and connections between people, places and environments GE5-3
* acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-7

### Learning across the curriculum content

* Ethical understanding
* Critical and creative thinking
* Literacy
* Sustainability

[Geography K-10 syllabus](https://syllabus.nesa.nsw.edu.au/hsie/geography-k10/content/) © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2015

## Learning progressions – literacy

### Writing

| Sub-element | Indicators |
| --- | --- |
| Creating texts (CrT) | CrT8, CrT9. CrT10 |
| Grammar (GrA1)\* |  |
| Punctuation (PuN)\* |  |
| Spelling (SpG)\* |  |
| Handwriting and keyboarding (HwK)\* |  |

### Reading and viewing

| Sub-element | Indicators |
| --- | --- |
| Understanding texts (UnT) | UnT7, UnT8, UnT9 |
| Phonological awareness (PhA)Phonic knowledge and word recognition (PKW) | These are constrained skills gained in the early years of learning. There may be students who are identified as needing individual assistance with PhA and PKW in the secondary years. These students must be referred to the LaST for further intervention. |
| Fluency (FlY)\* |  |

### Speaking and listening

| Sub-element | Indicators |
| --- | --- |
| Listening (LiS) | LiS5 |
| Interacting (InT) | InT6 |
| Speaking (SpK) | SpK7 |

## Learning progressions – numeracy

### Number sense and algebra

| Sub-element | Indicators |
| --- | --- |
| Quantifying numbers (QuN) |  |
| Additive strategies (AdS) |  |
| Multiplicative strategies (MuS) |  |
| Operating with decimals (OpD) |  |
| Operating with percentages (OpP) |  |
| Understanding money (UnM) |  |
| Number patterns and algebraic thinking (NPA) |  |
| Interpreting fractions (InF) |  |
| Comparing units (CoU) |  |

### Measurement and geometry

| Sub-element | Indicators |
| --- | --- |
| Measuring time (MeT) |  |
| Positioning and locating (PoL) | PoL4, PoL5 |
| Understanding geometric properties (UGP) |  |
| Understanding units of measurement (UUM) |  |

### Statistics and probability

| Sub-element | Indicators |
| --- | --- |
| Interpreting and representing data (IRD) | IRD5 |
| Understanding chance (UnC) |  |

Note – indicators for the sub-elements in red\* can be identified once work samples from students have been collected and analysed.

## Teaching and learning activities

1. Use the [hunger map 2015](https://www.issuelab.org/resource/hunger-map-2015.html) to locate the following countries and identify their rating of undernourishment in the table below. Countries – Indonesia, Ethiopia, Timor-Leste, India, Argentina.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Very low<5% | Moderately low5-14.9% | Moderately high15-24.9% | High25-34.9% | Very high>35% |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

1. Discuss the spatial distribution of food security and undernourishment around the world using the same stimulus.
2. Visit the [World Vision](https://www.worldvision.org/hunger-news-stories/east-africa-hunger-famine-facts) website, and write a descriptive written piece about living with food insecurity. Include the application of geographical concepts in the work.

### Evaluate

**Formative feedback**

* Teacher observation of students’ ability to interpret data scales (online data maps) and mapping skills
* Student – teacher conferencing of draft descriptive written piece.

**Summative feedback**

* Assessment task.

### Assessment task

* Submitted descriptive written piece.

### Linking to the learning progression indicators (observable behaviours)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Indicator | Where to next (indicator) | Suggested learning activity |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |