**Year 4 HASS/HSIE**

For teachers to formulate a program that meets the needs of their students, activities that support the Australian Curriculum are listed below. Teachers can choose the Content Descriptions and the activities that will give the students the opportunity to gain the understandings and skills necessary to demonstrate learning relevant to the Achievement Standard.

Geography Content Descriptions:

* The importance of environments, including natural vegetation, to animals and people (ACHASSK088)
* The use and management of natural resources and waste, and the different views on how to do this sustainably (ACHASSK090)
* Draw simple conclusions based on analysis of information and data (ACHASSI079)
* Interact with others with respect to share points of view (ACHASSI080)
* Reflect on learning to propose actions in response to an issue or challenge and consider possible effects of proposed actions (ACHASSI081)

**Lesson Topic 1 – Our Ecological Footprint**

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| **Activity 1**: For students to establish a connection between our needs, the resources we use and the Earth. |
| Teacher shares a large packet of potato crisps with the class and leads discussion:* Why do we need food? Where do potatoes come from? Where does all food come from? Do all the things we use come from the Earth?
* Why do we put potato crisps in a packet? What will we do with the packet? Where will the packet end up? How long will the packet remain there? (Share the *How long it takes for certain products to decompose* list)

 Teacher leads class discussion:* How long do you think it would take potato peels to decompose and return to the earth?

How long do you think it would take for a plastic packaging bag to decompose and return to the earth? * Teach can engage children to work together to answer the following quiz: <https://waster.com.au/quiz-how-long-does-trash-take-to-decompose-in-a-landfill/>
* Why is creating waste takes a long time to return to the earth (decompose) a problem?
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| After completing the activity students should be able to:  |
| * understand that all resources people use come from the Earth and its environment, e.g., food, clothing, transport, etc.
* understand that some things we use take a long time to decompose and damage (pollute) our environment.
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| **Activity 2**: For students to develop an understanding that waste and pollution are problems that needs solving. |
| Students view film: * Don't Waste Your Waste – (6-minute film) <https://www.youtube.com/watch?v=Kr_DGf77OhM>

Teacher leads class discussion: * What did you think of the film?
* What is pollution and waste doing to our planet?
* Are there other forms of pollution other than waste we cannot see?
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| After completing the activity students should be able to:* understand that waste and pollution have a major impact on the planet Earth.
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| **Activity 3**: For students to understand that we can measure/calculate how much of the Earth’s resources we use. |
| Teacher draws large footprint on the floor of the classroom. * It is important that the teacher is personally familiar with the use of the Ecological Footprint Calculator: <http://www.wwf.org.au/get-involved/change-the-way-you-live/ecological-footprint-calculator#gs.i70czMM>
* Teacher explains ‘ecological footprint as the mark each of us leaves on the Earth by the way we live and the resources we use’.
* In groups, students discuss and list the resources they used from the time they got up until they started school energy (electrical, gas, oil), water and waste (food, packaging)
* Groups report back, and discuss whether there are items on the lists that could be changed to make the footprint smaller
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| After completing the activity students should be able to:* understand that everybody uses resources every day and the way we use resources leaves a small or large footprint, i.e. makes a small or large impact on the Earth.
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| **Activity 4**: For students to calculate a footprint and appreciate that some people have a larger footprint than others. |
| Class or homework activity: * Students use the Ecological Footprint Calculator to calculate their environmental footprint
* Class activity: <http://www.wwf.org.au/get-involved/change-the-way-you-live/ecological-footprint-calculator#gs.i70czMM>
* Compare student’s footprints and discuss how the amount of resources used determines the size of our footprint (the mark we leave on the Earth).
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| After completing the activity students should be able to:* understand that everyday living uses resources and that we all leave our footprint on the earth
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| **Activity 5**: For students to connect the idea of a personal footprint to environmental action. |
| Personal action challenge: * Students think about one way they can make an instant reduction to their personal footprint and share the idea with the class.
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| After completing the activity students should be able to:* generate ideas for personal action to decrease their environmental footprint.
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**Lesson Topic 2 – Let’s recycle**

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| **Activity 1**: For the students to develop an understanding that rubbish and pollution are a problem that needs solving. |
| Review of prior learning: * What do you think the excess waste is doing to our planet?
* Don't Waste Your Waste – (6-minute film) https://www.youtube.com/watch?v=Kr\_DGf77OhM
 |
| After completing the activity students should be able to:  |
| * understand that waste and pollution have a major impact on planet Earth.
 |
| **Activity 2**: For the students to start a conversation about the need to reduce our footprint by recycling, composting, and looking for materials that cause less damage. |
| * Individually, in small groups or as a class: Give students the unordered list of items (see teacher note) and ask them to suggest the order of time taken for each item to decompose (return to the earth). Sequence the items from the shortest to longest time. [**Click to see list**](#_Lesson_2_–)
* Reveal the published list ordered by time and ask the students which time periods surprise them. [**Click to see list**](#_Lesson_2_–_1)
* Have students suggest items on the list that should be recycled, those that might be reused and those that we should use less of or avoid.
* Source: https://www.epa.vic.gov.au/get-involved/report-litter
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| After completing the activity students should be able to:* understand that some materials return to the earth (the natural environment) quickly while other materials remain with us as rubbish for very long periods of time.
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| **Activity 3**: For the students to begin thinking about change that requires both individual and collective action. |
| Referring to the published list of time periods, students discuss: * Why do you think communities (people together) are working hard to recycle, reuse and reduce?
* Example of a close loop recycling in the agriculture sector: drumMUSTER
* Beating the drum - https://www.youtube.com/watch?v=bRXK9ZTF61o&list=PLLIRN3PIEgyZ1EirGDit6HrQHvWhZEebz&index=1
	+ Part 1 –

<https://www.youtube.com/watch?v=gpUz6CZjCLc&list=PLLIRN3PIEgyZ1EirGDit6HrQHvWhZEebz&index=2> * + Part 2 –

<https://www.youtube.com/watch?v=LX9ZAozwyAs&list=PLLIRN3PIEgyZ1EirGDit6HrQHvWhZEebz&index=3>* + Part 3 – <https://www.youtube.com/watch?v=LX9ZAozwyAs&list=PLLIRN3PIEgyZ1EirGDit6HrQHvWhZEebz&index=3>
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| After completing the activity students should be able to:* understand that reducing damage to our planet requires us to be part of collective action.
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| **Activity 4**: For the students to understand a simplified system as a basis for further development. |
| In small groups students: * Create a simple flow diagram for one of the schools recycling systems (composting, worm farms, community systems, paper).
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| After completing the activity students should be able to:* understand a simplified concept of a recycling system as a linear process.
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| **Activity 5**: For the students to reflect on the personal role they play to help reduce waste and decrease damage to the planet. |
| Recycling in practice Students collect the waste items of their class from recess and/or lunch. Classify the items into groups that can be:* recycled
* composted
* or replaced by a material that can then be recycled OR reused

Students identify actions that could be taken to reduce the amount of rubbish sent to landfill.  |
| After completing the activity students should be able to:* understand that our daily activities can cause damage to our planet and we can all take action to reduce the damage.
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**Lesson Topic 3 – Living without waste**

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| **Activity 1**: For the students to appreciate that rubbish is associated with modern lifestyles. |
| Teacher provides the class with the image of a rubbish tip and leads discussion:* What types of things do we send to the rubbish tip?
* Why do we call the rubbish tip a ‘landfill site’?
* How long have people in Australia been dumping their rubbish at tips? (Class members estimate: 50 years, 100 years, 500 years)
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| After completing the activity students should be able to: * understand that the problem of rubbish polluting the environment has been created in a relatively short period of time.
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| **Activity 2**: For the students to be introduced to the concept of living sustainably and the issue of peoples’ relationship to the natural world. |
| View the video:* Around Tasmania Aboriginal Middens, <https://www.youtube.com/watch?v=nVJgse0vRbM>

Class discussion: Aboriginal people have lived in Australia for 60 000 years: * What types of things can be found in a midden?
* What do the objects in the midden tell us about the relationship of Aboriginal people to the environment?
* Did traditional Aboriginal people create waste or damage the environment? Was their lifestyle sustainable?
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| After completing the activity students should be able to: * appreciate people living traditional lifestyles are sustainable and create limited damage to the environment.
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| **Activity 3**: For the students to connect the issue of rubbish and waste to their own lives. |
| Investigating lunch wasteAt the start of the day, the students record/photograph the content of their lunch box or the food goods bought at the canteen.After morning tea/lunch, the teacher brings a playground bin into the classroom and poses the question:* How can we decrease the amount of rubbish we send to landfill daily by starting with student lunch and morning tea waste?

Students work in groups or pairs to suggest two or three ways to reduce packaging, increase recycling or eliminate waste sent to landfill. Teacher collates a class list of ideas for ‘less waste’ lunches.  |
| After completing the activity students should be able to: * understand that we all create rubbish and that we can reduce the amount of rubbish we create by changing the way we live.
 |
| **Activity 4**: For the students to examine their lifestyle and plan to reduce some of the waste they create. |
| Teacher asks the class to estimate how much rubbish they personally create in one year, e.g. the size of one council waste bin, the size of a car, the size of a truck?* Teacher introduces the concept/ideal of living with ‘zero waste’. The class discusses what is meant by ‘zero waste’.
* Class views the video: *Primary school children lead recycling charge* <https://www.abc.net.au/news/2017-04-10/8429872>
* In groups, students suggest and record ideas of how the class in the video reduced rubbish to almost nothing.

In groups, discuss ideas for reducing the amount of rubbish personally estimated at the start of the lesson.  |
| After completing the activity students should be able to:* appreciate the quantity of rubbish sent to landfill because of the way we live and understand that changes can be made to reduce the waste we create.
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| **Activity 5**: Identify ideas for personal action to reduce rubbish.  |
| Over 24 hours students record the items they use, buy, or consume that produce rubbish (waste sent to landfill). [**Click link to access page**](#_The_Waste_I) Class members select three items from the record and for each item suggest a personal change that could be made to reduce the rubbish they send to landfill. |
| After completing the activity students should be able to:* demonstrate a capacity to identify items/goods that produce rubbish/waste
* describe a range of strategies for reducing waste in their personal life.
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**HASS Achievement Standard**

By the end of Year 4, students recognise the significance of events in bringing about change and the importance of the environment. They explain how and why life changed in the past and identify aspects of the past that have remained the same. They describe the experiences of an individual or group in the past. They describe and compare the diverse characteristics of different places at local to national scales. Students identify the interconnections between components of the environment and between people and the environment. They identify structures that support their local community and recognise the importance of laws in society. They describe factors that shape a person’s identity and sense of belonging. They identify different views on how to respond to an issue or challenge.

Students develop questions to investigate. They locate and collect information and data from different sources, including observations to answer these questions. When examining information, they distinguish between facts and opinions and detect points of view. They interpret data and information to identify and describe distributions and simple patterns and draw conclusions. They share their points of view, respecting the views of others. Students sequence information about events and the lives of individuals in chronological order with reference to key dates. They sort, record, and represent data in different formats, including large-scale maps using basic cartographic conventions. They reflect on their learning to propose action in response to an issue or challenge, and identify the possible effects of their proposed action. Students present ideas, findings and conclusions using discipline-specific terms in a range of communication forms.

# **Lesson 2 – Activity 2: Question**

# **How long does it takes for certain products to decompose (return to the earth):**

Paper bag:

Orange peel:

Chewing gum:

Cigarette butt:

Plastic bag\*:

Plastic bottle:

Glass:

Aluminium can:

# **Lesson 2 – Activity 2: Answer**

# **Here’s how long it takes for certain products to decompose (return to the earth):**

Paper bag: One month

Orange peel: Up to two years

Chewing gum: Up to five years

Cigarette butt: Up to 12 years

Plastic bag\*: Up to 20 years

Plastic bottle: 450 years

Glass: One to two million years

Aluminium can: More than a million years

# **Lesson 3 – Activity 5: The Waste I created!**

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| **Item** | **Type of waste** | **Weight** |
| Cheese and crackers | Cardboard and plastic | 50 grams |
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