

Wormforce - Worm Activities

These activities can be implemented into classroom programs with the idea of specifically addressing areas of the Curriculum Framework and Progress Maps.

Learning Area	Progress Map Elaborations	Activities
<p>SCIENCE</p>	<p>Life and Living:</p> <p>Level 1</p> <ul style="list-style-type: none"> • They also recognise that people need food and shelter to survive, just as pets have needs such as food, water and care. • They can describe common features such as legs, eyes and ears through a drawing of themselves and an animal. • They may also identify that an elephant's trunk is really a big nose, that other animals have different noses and that some animals have different coverings. • Students understand that personal features change over time: for example, how height changes from childhood to adulthood. <p>Level 2</p> <ul style="list-style-type: none"> • Students understand that living things have different needs: for example, they compare sources of food and shelter of familiar animals such as pets, snails, and bees. • They can also describe how animals use different senses to locate food. • Students understand that living things change over time. 	<p>Life and Living:</p> <p>Level 1</p> <ul style="list-style-type: none"> • Brainstorm the needs of humans and worms into an explosion chart using words and pictures. (Shelter, food, water, care) • Draw what earthworms can and cannot eat. • Draw a labelled picture of themselves and a worm and orally tell the difference between the two. • Use their senses to describe what a worm looks like and the environment it lives in. Create a touch board that describes this. • Draw the life cycle of a worm. Place photographs of each stage into their life cycle. <p>Level 2</p> <ul style="list-style-type: none"> • Create a structured overview comparing the needs of three animals, one being a worm. Insert diagrams and photographs where applicable. • Write a description or an explanation explaining how a worm senses and locates its' food. • Break down the lifecycle of a worm into pictures and place them out of order.

	<p>Level 3</p> <ul style="list-style-type: none"> • Students make connections between living things: for example, they use their experiences of animals' diets to describe animals that eat other animals or plants in a food chain. • They also recognize the difference between how animals get their food and how plants make their own food from the sun. • Students make connections between living things and the environment • Students understand connections within structures that form part of a system in living things, such as the breathing and circulatory systems, and make predictions about organisms and relationships. • They can compare structures • Students understand that plants and animals reproduce and that offspring resemble their parents • They can compare life cycles of groups of organisms. 	<p>Students place the life cycle of a worm in the correct order and write a brief description of what is occurring at each stage.</p> <p>Level 3</p> <ul style="list-style-type: none"> • Using picture clues, students arrange a food chain that includes a worm. Must have at least six elements to the food chain. Extend by creating a food web. • Write a description of the system involved in feeding the worms. Describe the difference between plants creating their food and worms feeding. • Detail the environment in which the worms are happiest. Outline how environment changes impact on worm breeding and contentment. Display in a photographic report, include charts and tables outlining worm numbers. • Research how worms impact and assist the environment around them, such as soil aeration. • Draw a detailed diagram of the structure of a worm and the environment it lives. • Draw and describe the life cycle of a worm. Explain how changes in the environment or circumstances affect the lifecycle such as a decline in food or overcrowding.
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	<p>Investigating Scientifically</p> <ul style="list-style-type: none"> • This is a series of investigation ideas specifically geared for the topic of worms. 	<p>Investigating Scientifically</p> <ul style="list-style-type: none"> • How does a change in the temperature of the soil effect worm production? • What effect does too much food have on the worms? • What change occurs from a worm egg to a mature worm? (Life Cycles) • How long does it take to breed from two adult worms? • How do worms reproduce? • What types of food do worms eat and what can't they eat? Why? • What is the difference between composting worms and earthworms?
<p>Mathematics</p>	<p>Measurement: Level 1</p> <ul style="list-style-type: none"> • Students are aware of the attributes of length, mass, capacity and time as attributes of objects/events and use them to put two or three obviously different things in order. • They also respond appropriately to and use the everyday language forms of their communities associated with length, mass, capacity and time. • Students respond appropriately to and use the comparative and descriptive language of time of their local community, describing such things as 'longer'/'shorter', 'day'/'night', 'high tide', 'summer' and 'the Wet'. • Students respond appropriately to and use comparative language such as 'shorter', 'tallest', 'longer', 'same length', 'near', 'far', 'higher', 'lower' to describe 	<p>Measurement: Level 1</p> <ul style="list-style-type: none"> • Measure the length of a variety of worms and record visually. • Order worms depending on attribute from smallest to biggest. • Attributes are: length, width height, thickness, weight etc. • Students measure out food quantities using a container. Get them to change containers depending on whether more or less is required. • Students measure out quantities of worms depending on how many are required. Change containers accordingly.

	<p>the attribute of length.</p> <ul style="list-style-type: none"> • When describing the attribute of mass, students respond appropriately to, and use for themselves, comparative language such as 'heavier-lighter', 'weighs more-weighs less' and 'too heavy'. • They may respond appropriately to a request to choose a container that will 'hold more' or 'hold less' to describe the capacity of containers that are clearly different. <p>Level 2</p> <ul style="list-style-type: none"> • Students understand that comparing different attributes may produce different orders and are able to focus on a particular attribute in familiar practical situations • Thus they can compare the two glasses by capacity or height. • They also know that different things may be compared or measured according to the same physical attributes. • Students choose an appropriate unit that relates to the attribute to be measured. • They now see why it is important to count uniform units of length and that using multiple copies of a unit of length and using a single object repeatedly achieves the same purpose if the unit is repeated carefully without overlaps or gaps. • They have a growing sense of the passage of time and of the cycles of events. 	<p>Level 2</p> <ul style="list-style-type: none"> • Order worms depending on a variety of attributes. • Order worms according to weight. • Order food quantities according to weight. • Students measure quantities of worm fertiliser and castings. • Describe the length of time passed during worm life cycles.
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	<p>Level 3</p> <ul style="list-style-type: none"> • Students choose a common unit, such as a cup, when comparing two containers and allow the measurements to override their perception • They also realise the necessity of selecting the same unit when comparing two things, as the comparison could be misleading if the unit they use is different • Unprompted, they attempt to alter one or both of the regions to enable a direct comparison of area to be made • Students can determine length in metres and centimetres • They make numerical measurements of objects to order them • Students understand key elapsed time intervals, working with intervals in multiples of quarter-hours. • They use their knowledge of time to read and make straightforward schedules • Students add length, capacity and mass measurements in order to calculate the total size of something that cannot be measured directly. 	<p>Level 3</p> <ul style="list-style-type: none"> • Measure and order food quantities, worms, castings and liquid fertiliser according to capacity, mass and volume. • Calculate the area of the worm bins and amounts of worms in each square metre. • Calculate how much food is required for the amount of worms per square metre. • Read and work by schedules regarding feeding and maintenance of worms.
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<p>Technology and Enterprise</p>	<p>Technology Process: Ideas for technology projects that address, investigating, devising, producing and evaluating. Change to suit level of students.</p>	<p>Activity Ideas</p> <ul style="list-style-type: none"> • Creating portable worm farms to sell to customers. • Construct worm bins. • Create a marketing and packaging system to sell worm wee and castings. • Create a system to collect and feed worms. • Record a day in the life of a worm using multimedia such as cameras and video cameras. • Construct informational pamphlets detailing how to care for worms. • Create an advertisement to sell worm wee and castings as a product. • Create a worm mobile. Label the segments and saddle on the worm. Hang from ceiling. • Create clay worms as garden ornaments. • Each project must be investigated, devised/planned, produced and evaluated.
<p>English</p>	<p>Writing: Level 1</p> <ul style="list-style-type: none"> • They usually write about their own experiences and attempt texts such as lists, greeting cards, messages or explanations to accompany their drawings. • They discuss the purposes of familiar written texts: for example, signs provide direction. 	<p>Writing Activities Level 1</p> <ul style="list-style-type: none"> • Write a week by week diary of work done towards the worms. • Write a description of a worm and accompany it with illustrations. • Orally recount the uses of signs in the worm force shed and on the worm food buckets. • Draw and describe in a procedure how

	<ul style="list-style-type: none"> • Students explore ways of representing ideas and information using written symbols. • They use a range of strategies to help them produce words when they are writing: for example, they say words aloud and sound them slowly as they write, use alphabet charts, use their knowledge of letter names and sounds, copy environmental print, and ask others for help. <p>Level 2</p> <ul style="list-style-type: none"> • Students write simple imaginative and informative texts that include some related ideas about familiar topics. • They attempt texts such as lists, letters, recounts, narratives, procedures, instructions, messages, rhymes and simple descriptions • Students recognise some of the purposes and advantages of writing. • They recognise that writing can record information and ideas. • Their writing shows some understanding of the requirements of the task. <p>Level 3</p> <ul style="list-style-type: none"> • Students experiment with interrelating ideas and information when writing about familiar topics. • They are developing control over a small range of texts in which they combine ideas in a logical sequence 	<p>they feed the worms.</p> <ul style="list-style-type: none"> • Students imagine they have met an intelligent alien worm that wants to visit Earth. List all the good things on Earth that may convince this worm to visit, then list all the things that may endanger this worm's life. • Write a recipe to include worms. <p>Level 2</p> <ul style="list-style-type: none"> • Research composting worms and write a report on them. • Write an explanation on how to collect and store the worm liquid fertiliser. • Write a narrative based on topic, "My Life as a Worm". • Write a set of instructions explaining how to correctly feed the worms. • Create a visual diary to record all the work that has been done to the worms. <p>Level 3</p> <ul style="list-style-type: none"> • Research and compare earth worms and compost worms and present as a written informational report. • Construct a procedure for the collection, storage and selling of worm products such as the castings.
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	<ul style="list-style-type: none">• Students recognise that certain text types and features are associated with particular audiences and purposes.• They select an appropriate text type from a small range for a particular writing purpose.• They consider some needs and expectations of readers before writing and can explain some purposes for writing.	<ul style="list-style-type: none">• Write an explanation to detail and describe the uses of worm products.• Investigate and write an exposition arguing for or against the topic of, "Is the use of worms to deal with waste a good practise?"• Create an informational pamphlet outlining uses of worms.
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Wormforce - Worm Assessment

FAIR: Assessment should be demonstrably fair to all students and not discriminate on grounds that are irrelevant to the achievement of the outcome.

Learning Area	Progress Map Elaborations	Assessment Types
<p>Science</p>	<p>Life and Living:</p> <p>Level 1</p> <ul style="list-style-type: none"> • They also recognise that people need food and shelter to survive, just as pets have needs such as food, water and care. • They can describe common features such as legs, eyes and ears through a drawing of themselves and an animal. • They may also identify that an elephant's trunk is really a big nose, that other animals have different noses and that some animals have different coverings. • Students understand that personal features change over time: for example, how height changes from childhood to adulthood. <p>Level 2</p> <ul style="list-style-type: none"> • Students understand that living things have different needs: for example, they compare sources of food and shelter of familiar animals such as pets, snails, and bees. • They can also describe how animals use different senses to locate food. • Students understand that living things change over time. <p>Level 3</p> <ul style="list-style-type: none"> • Students make connections between living things: for example, they use their experiences of animals' diets to describe animals that eat other animals or plants in a food chain. 	<p>Work Sample Types</p> <p>Level 1</p> <ul style="list-style-type: none"> • Brainstorm the needs of humans and worms into an explosion. • A labelled picture of themselves and a worm and orally tell the difference between the two. • Create a touch board that describes worms and environment. • Draw the life cycle of a worm. <p>Level 2</p> <ul style="list-style-type: none"> • A structured overview comparing the needs of three animals, one being a worm. • A description or an explanation explaining how a worm senses and locates its' food. • Students place the life cycle of a worm in the correct order and write a brief description of what is occurring at each stage. <p>Level 3</p> <ul style="list-style-type: none"> • Students arrange a food chain that includes a worm. Must have at least six elements to the food chain. Extend by creating a food web. • A description of the system

	<ul style="list-style-type: none"> • They also recognize the difference between how animals get their food and how plants make their own food from the sun. • Students make connections between living things and the environment • Students understand connections within structures that form part of a system in living things, such as the breathing and circulatory systems, and make predictions about organisms and relationships. • They can compare structures • Students understand that plants and animals reproduce and that offspring resemble their parents • They can compare life cycles of groups of organisms. 	<p>involved in feeding the worms.</p> <ul style="list-style-type: none"> • Describe the difference between plants creating their food and worms feeding. • Detail the environment in which the worms are happiest. Outline how environment changes impact on worm breeding and contentment. Display in a photographic report, include charts and tables outlining worm numbers. • A report on how worms impact and assist the environment around them, such as soil aeration. • A detailed diagram of the structure of a worm and the environment it lives. • Draw and describe the life cycle of a worm. • Explanation of factors that effect the life cycle of a worm.
<p>Mathematics</p>	<p>Measurement: Level 1</p> <ul style="list-style-type: none"> • Students are aware of the attributes of length, mass, capacity and time as attributes of objects/events and use them to put two or three obviously different things in order. • They also respond appropriately to and use the everyday language forms of their communities associated with length, mass, capacity and time. • Students respond appropriately to and use the comparative and descriptive language of time of their local community, describing such things as 'longer'/'shorter', 'day'/'night', 'high tide', 'summer' and 'the Wet'. • Students respond appropriately to and use 	<p>Work Sample Types Level 1</p> <ul style="list-style-type: none"> • Measured length of a variety of worms and recorded visually. • Ordered worms depending on attribute from smallest to biggest. • Attributes are: length, width height, thickness, weight etc. • Measured food quantities using a container. Label with numbers from largest to smallest. • Measured out quantities of worms depending on how many are required. Change containers accordingly. Visual observations.

	<p>comparative language such as 'shorter', 'tallest', 'longer', 'same length', 'near', 'far', 'higher', 'lower' to describe the attribute of length.</p> <ul style="list-style-type: none"> • When describing the attribute of mass, students respond appropriately to, and use for themselves, comparative language such as 'heavier-lighter', 'weighs more-weighs less' and 'too heavy'. • They may respond appropriately to a request to choose a container that will 'hold more' or 'hold less' to describe the capacity of containers that are clearly different. <p>Level 2</p> <ul style="list-style-type: none"> • Students understand that comparing different attributes may produce different orders and are able to focus on a particular attribute in familiar practical situations • Thus they can compare the two glasses by capacity or height. • They also know that different things may be compared or measured according to the same physical attributes. • Students choose an appropriate unit that relates to the attribute to be measured. • They now see why it is important to count uniform units of length and that using multiple copies of a unit of length and using a single object repeatedly achieves the same purpose if the unit is repeated carefully without overlaps or gaps. • They have a growing sense of the passage of time and of the cycles of events. 	<p>Level 2</p> <ul style="list-style-type: none"> • Ordered worms depending on a variety of attributes. Observations. • Order worms according to weight. Apply a weight to each and draw in correct order. • Ordered food quantities according to weight. • Measure quantities of worm fertiliser and castings. • Describe the length of time passed during worm life cycles. Orally and written.
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	<p>Level 3</p> <ul style="list-style-type: none"> • Students choose a common unit, such as a cup, when comparing two containers and allow the measurements to override their perception • They also realise the necessity of selecting the same unit when comparing two things, as the comparison could be misleading if the unit they use is different • Unprompted, they attempt to alter one or both of the regions to enable a direct comparison of area to be made • Students can determine length in metres and centimetres • They make numerical measurements of objects to order them • Students understand key elapsed time intervals, working with intervals in multiples of quarter-hours. • They use their knowledge of time to read and make straightforward schedules • Students add length, capacity and mass measurements in order to calculate the total size of something that cannot be measured directly. 	<p>Level 3</p> <ul style="list-style-type: none"> • Measured and ordered food quantities, worms, castings and liquid fertiliser according to capacity, mass and volume. Visual and written units on sheet. • Calculated area of the worm bins and amounts of worms in each square metre. • Calculated how much food is required for the amount of worms per square metre. • Read and worked by schedules regarding feeding and maintenance of worms. Observations.
<p>Technology and Enterprise</p>	<p>Technology Process: Ideas for technology projects that address, investigating, devising, producing and evaluating. Change to suit level of students.</p>	<p>Work Sample Types.</p> <p>These will be assessed at various intervals during the course of work. Assessment will correspond to the components of the technology process, investigating, planning/devising, producing and evaluating.</p> <p>Ideas for end products:</p> <ul style="list-style-type: none"> • Powerpoint presentation. • Informational pamphlet. • Movie camera presentation.

		<ul style="list-style-type: none"> • Photostory. • Movie maker. • Model • Mobile • Poster • Oral presentation. • Diorama. • Visual Diary.
English	<p>Writing:</p> <p>Level 1</p> <ul style="list-style-type: none"> • They usually write about their own experiences and attempt texts such as lists, greeting cards, messages or explanations to accompany their drawings. • They discuss the purposes of familiar written texts: for example, signs provide direction. • Students explore ways of representing ideas and information using written symbols. • They use a range of strategies to help them produce words when they are writing: for example, they say words aloud and sound them slowly as they write, use alphabet charts, use their knowledge of letter names and sounds, copy environmental print, and ask others for help. <p>Level 2</p> <ul style="list-style-type: none"> • Students write simple imaginative and informative texts that include some related ideas about familiar topics. • They attempt texts such as lists, letters, recounts, narratives, procedures, instructions, messages, rhymes and simple descriptions • Students recognise some of the purposes and advantages of writing. 	<p>Work Sample Types</p> <p>Writing Activities</p> <p>Level 1</p> <ul style="list-style-type: none"> • Written week by week diary of work done towards the worms. • Description of a worm and accompany it with illustrations. • Oral recount of the uses of signs in the worm force shed and on the worm food buckets. • Drawn and described a procedure of how they fed the worms. <p>Level 2</p> <ul style="list-style-type: none"> • Report on composting worms. • Explanation on how to collect and store the worm liquid fertiliser. • Narrative based on topic, "My Life as a Worm". • Instructions explaining how to correctly feed the worms. • Visual diary to record all the work that has been done to the worms.

- They recognise that writing can record information and ideas.
- Their writing shows some understanding of the requirements of the task.

Level 3

- Students experiment with interrelating ideas and information when writing about familiar topics.
- They are developing control over a small range of texts in which they combine ideas in a logical sequence
- Students recognise that certain text types and features are associated with particular audiences and purposes.
- They select an appropriate text type from a small range for a particular writing purpose.
- They consider some needs and expectations of readers before writing and can explain some purposes for writing.

Level 3

- Comparison on earth worms and compost worms and present as a written informational report.
- Procedure for the collection, storage and selling of worm products such as the castings.
- Explanation to detail and describe the uses of worm products.
- Exposition arguing for or against the topic of, "Is the use of worms to deal with waste a good practise?"
- Informational pamphlet outlining uses of worms.