



UNIT 4 **MARINE SUSTAINABILITY**

UNIT 4: YEAR 7 FUSE @SURF COAST SECONDARY COLLEGE



1

ENGLISH

LEARNING TARGET 1

E1

I will learn about the character of Michael, including his relationships with other characters in the novel.

E2

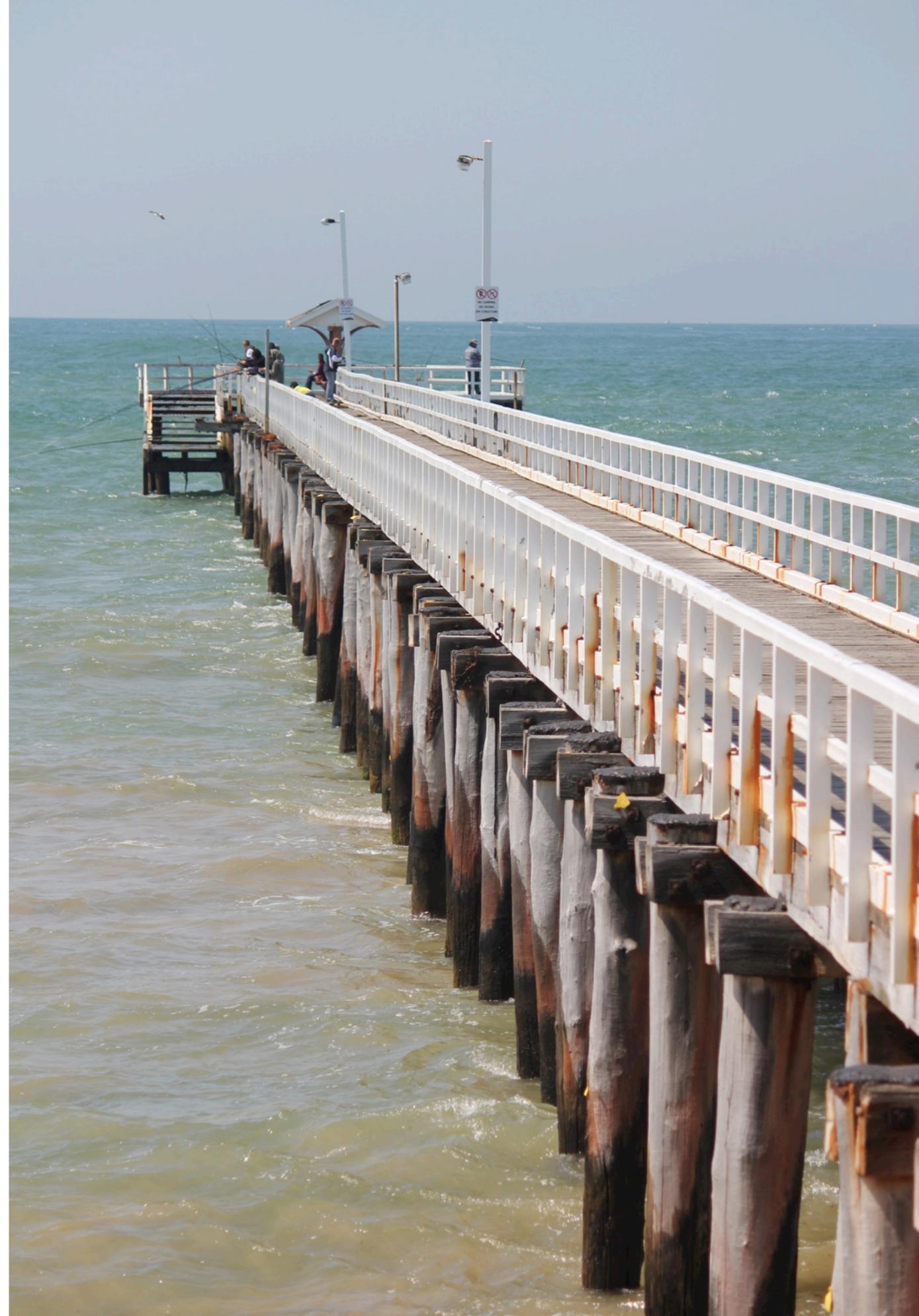
I will learn about the characterisation of Michael, including his relationships with other characters in the novel.

E3

I will learn about the characterisation of Michael, including his relationships with other characters in the novel.

E4

I will learn about the characterisation of Michael, including his relationships with other characters in the novel.



E1 INFORMATION

I will learn about the character of Michael, including his relationships with other characters in the novel.

TO DO before starting the final task.

1. Analysing the protagonist: (Suggested time: 20 mins)

a) Using the key [instructional verbs](#) create five questions about the protagonist Michael. You could ask questions about his fears, passions, goals and morals. Choose a minimum of one of these questions and answer them using [TEEL](#).

b) Annotate (highlight and write explanatory notes) your paragraph to show how you have used TEEL.

2. Analysing the relationships:(Suggested time: 45 mins)

Complete the [following table](#), ensure you read the instructions closely.

Your FINAL TASK

Quote analysis presentation: (suggested time: 55 mins)

Using any app of your choice you are to create a presentation that explores important **quotes** and analysis on the protagonist Michael.

You should collect quotes and write analysis on the following points:

- i) Michael's relationship with Eugenia and Gran.
- ii) Michael's passion of the ocean and why protecting the ocean is important to him.
- iii) The conflict (fights or disagreements) that Michael has with other characters.
- iv) How Michael grows and changes in the novel. What is he like at the start? What is he like at the end?

(Use the quote table we created during tutorials to help you with this presentation)

Submit to StudyTurf

1. Five questions about the protagonist with two answered using TEEL
2. Analysing relationships with completed sections
3. Completed Quote Analysis presentation

Success Criteria

I can break down parts of the protagonist of 'Whale Boy' and with assistance use evidence to support my ideas.

E2 KNOWLEDGE

I will learn about the characterisation of Michael, including his relationships with other characters in the novel.

TO DO before starting the final task.

1. Analysing the protagonist: (Suggested time: 25 mins)

a) Using the key [instructional verbs](#) create five questions about the protagonist Michael. You could ask questions about his fears, passions, goals and morals. Choose a minimum of one of these questions and answer them using [TEEL](#).

b) Annotate (highlight and write explanatory notes) your paragraph to show how you have used TEEL.

2. Analysing the relationships:(Suggested time: 40 mins)

Complete the [following table](#), ensure you read the instructions closely.

Your **FINAL TASK**

Quote analysis presentation: (suggested time: 55 mins)

Using any app of your choice you are to create a presentation that explores important **quotes** and analysis on the protagonist Michael.

You should collect quotes and write analysis on the following points:

- i) Michael's relationships with others
- ii) Michael's passions
- iii) Michael's conflict (disagreements) with other characters
- iv) How Michael grows and changes in the novel
- v) The moral that Nicola Davis communicates in the novel

(Use the quote table we created during tutorials to help you with this presentation)

Submit to StudyTurf

1. Five questions about the protagonist with two answered using TEEL
2. Analysing relationships with completed sections
3. Completed Quote Analysis presentation

Success Criteria

I can break down parts of the protagonist of 'Whale Boy' and with assistance use evidence to support my ideas.

E3 KNOW HOW

I will learn about the characterisation of Michael, including his relationships with other characters in the novel.

TO DO before starting the final task.

1. Analysing the protagonist: (Suggested time: 25 mins)

Using the key [instructional verbs](#) create five questions about the protagonist Michael. Choose a minimum of two of these questions and answer them using [TEEL](#).

2. Analysing the relationships:(Suggested time: 40 mins)

Complete the [following table](#), ensure you read the instructions closely.

Your **FINAL TASK**

Quote analysis presentation: (suggested time: 55 mins)

Using any app of your choice you are to create a presentation that explores important **quotes** and analysis on the protagonist Michael.

You should collect quotes and write analysis on the following points:

- i) Michael's relationships with others and how these change
- ii) Michael's passions
- iii) Michael's moral dilemma
- iv) How Michael grows and changes in the novel
- v) The moral that Nicola Davis communicates in the novel

Submit to StudyTurf

1. Five questions about the protagonist with two answered using TEEL
2. Analysing relationships with completed sections
3. Completed Quote Analysis presentation

Success Criteria

I can break down parts of the protagonist of 'Whale Boy' and with assistance use evidence to support my ideas.

E4 WISDOM

I will learn about the characterisation of Michael, including his relationships with other characters in the novel.

TO DO before starting the final task.

1. Analysing the protagonist: (Suggested time: 25 mins)

Using the key [instructional verbs](#) create five questions about the protagonist Michael. Choose a minimum of two of these questions and answer them using [TEEL](#).

2. Analysing the relationships:(Suggested time: 40 mins)

Complete the [following table](#), ensure you read the instructions closely.

Your **FINAL TASK**

Quote analysis presentation: (suggested time: 55 mins)

Using any app of your choice you are to create a presentation that explores important quotes and analysis on the protagonist Michael.

You should collect quotes and write analysis on the following points:

- i) Michael's relationships with others and how these change
- ii) Michael's passions and how this impacts the plot
- iii) The conflict that Michael comes into contact with including both external conflict and internal conflict
- iv) How Michael grows and changes in the novel
- v) The moral that Nicola Davis communicates in the novel.

Submit to StudyTurf

1. Five questions about the protagonist with two answered using TEEL
2. Analysing relationships with completed sections
3. Completed Quote Analysis presentation

Success Criteria

I can break down parts of the protagonist of 'Whale Boy' and with assistance use evidence to support my ideas.



2

HUMANITIES

LEARNING TARGET 1

H1

I can **identify** and **explain** economic terms such as supply and demand, and **apply** these to real world situations.

H2

I can **explain** supply and demand, and consumer behaviours, and **apply** these to real world situations.

H3

I can **understand** key concepts relating to economics and use this knowledge to **analyse** Surf Coast

H4

I will be able to **identify** economic terms that affect businesses and **understand** how advertising **affects** consumer behaviours.



Your **FINAL TASK**

1. Watch [this CASE STUDY # 2 video](#) about a local business, BUCKLEBERRY FARM.

Answer the following questions in full sentences about the business:

- a. What 'good' does the business sell?
- b. Who do you think would be the buyers of this good?
- c. What might be 5 factors that would affect the supply and demand of the business? HINT: Think about what makes their good!

2. Create a detailed [PMI Chart](#) on each of the following scenarios:

1. All consumers in Australia have unlimited amounts of money to spend
2. All businesses in Australia shut down for one whole month a year.

What does success look like?

- I can define economic terms.
- I can create my own explanation of supply and demand.
- I can analyse a real business and apply my economic knowledge to answer questions.
- I can analyse scenarios to evaluate their positives and negatives.

What to post to StudyTurf:

1. Definition of economic terms.
2. Explanation of supply and demand with a real world example.
3. Completed questions about Buckleberry Farm.
4. **2** Finished PMI Charts.

H2: KNOWLEDGE STAGE

I can explain supply and demand, and consumer behaviours, and apply these to real world situations.

TO DO before completing the final task.

- 1 Watch [this YouTube video](#) on Supply and Demand.
- 2 Define **supply and demand** using a real world example.
- 3 Consider the following scenario:
You will often see petrol stations in an area lowering their price for petrol once one station does so.

Explaining the following in an app of your choice:

- a. Why do you think this scenario occurs?(What is this economic concept called?)
- b. Petrol prices tend to be higher on public holidays and school holidays. Why is this?
- c. What do you think might happen if all petrol stations kept their prices equally high, beyond a price that consumers considered reasonable? What does this reveal about the power of the consumer?



Your **FINAL TASK**

1. Watch [this CASE STUDY # 1 video](#) about a local business, MOONSHINE HANDPLANES.

Answer the following questions in full sentences about the business:

- What 'good' does the business sell?
- Who do you think would be 5 potential buyers of this good?
- What might be 5 factors that would affect the supply and demand of the business? HINT: Think about what the good is made from!
- What do you think would happen to the price of a handplane when there is a:

- surplus

-shortage

CAT PREPARATION:

The owner of Moonshine Handplanes continually mentions the term 'sustainability'.

- What is sustainability?
- How does Moonshine Handplanes contribute to sustainability?
- Brainstorm as many ways you can think of to use timber in a sustainable manner in Australia, so that there is enough available for the future.

What to post to StudyTurf:

- Definition of supply and demand.
- Scenario explanation in an app of your choice.
- Completed questions about Moonshine Handplanes.
- Completed CAT preparation tasks.

What does success look like?

- I can define supply and demand using real world examples.
- I can evaluate a scenario and identify consumer behaviours and economic concepts.
- I can define sustainability and begin to identify sustainable practices in Australia.

H3: KNOW-HOW STAGE

I can understand key concepts relating to economics and use this knowledge to analyse Surf Coast businesses.

TO DO before completing the final task.

- 1 Watch [this YouTube video](#) for an introduction to Economics.
- 2 Watch [this YouTube video](#) on Supply and Demand.
- 3 Read the following scenario:

A local business 'Zeally Bay Sourdough' produces 100 loaves of bread each day. Bread not sold by the end of the day is thrown out. The Business owner, John, is not sure how much to charge for each loaf of bread. He decides to sell each loaf for \$10 each, as each loaf is baked organically, rare for fresh bread.

Answer [these questions](#) about Zeally Bay Sourdough and their bread.



Your FINAL TASK

1. Watch these [CASE STUDIES #2 & #3](#) about 2 local business, SOYBREEZE CANDLES & BUCKLEBERRY FARM.

Complete this table:

	Case study 2	Case study 3
What might be some factors that would affect the supply and demand of each business?		
When might each business experience a shortage or surplus?		
Who are the major competitors in the market for each business? Research if you are unsure.		
Who might be the major consumers of each businesses product? Who do you think would be their buyers and why?		
What are some factors that would go into determining the price of each good?		

CAT PREPARATION:

- How do SOYBREEZE CANDLES & BUCKLEBERRY FARM use 'sustainability' in their business?
- Brainstorm as many ways you can think of to use natural resources (such as timber, water, etc) in a sustainable manner, so that there is enough for the future.

What to post to StudyTurf:

- Zeally Bay Sourdough completed questions.
- Completed table about Soy Breeze candles and Buckleberry Farm.
- Completed CAT preparation tasks.

What does success look like?

- I can evaluate local businesses and apply economic principles to problem solve.
- I can identify economic factors affecting a business.
- I can define sustainability and begin to identify sustainable practices.

H4: WISDOM STAGE

I will be able to identify economic terms that affect businesses and understand how advertising affects consumer behaviours.

TO DO before completing the final task.

1 Watch [this YouTube video](#) for an introduction to Economics.

2 Watch [this YouTube video](#) on Supply and Demand.

3 From your prior knowledge and what you learned from the videos, define these 5 economic terms:

-resource, scarcity, market, consumer, opportunity cost

4 Learn about effective advertising [here](#) and answer the related questions.



Your FINAL TASK

1. Watch these CASE STUDY #1, #2, #3 videos about 3 local business, MOONSHINE HANDPLANES, SOYBREEZE CANDLES & BUCKLEBERRY FARM.

Complete this table:

	Case study 1	Case study 2	Case study 3
What might be some factors that would affect the supply and demand of each business?			
When might each business experience a shortage or surplus?			
Who are the major competitors in the market for each business? Research if you are unsure.			
Who might be the major consumers of each businesses product? Who do you think would be their buyers and why?			
What are some factors that would go into determining the price of each good?			

Choose one of the CASE STUDY Businesses and design a poster advertising their business. Be aware of how the business is unique in the market (what makes it different to its competitors?) and design an advertisement that will appeal to the goods buyers.

BE CAREFUL: You are advertising the business not the goods they are selling, so dont include prices!

What to post to StudyTurf:

1. Definition of 5 Economic terms.
2. Completed advertising questions.
3. Completed table about 3 local businesses.
4. Finished poster advertising a chosen business.

What does success look like?

- I can identify economic factors affecting a business.
- I can grasp how advertising affects consumer behaviours.
- I can identify consumer behaviours and design an advertisement accordingly.



3

SCIENCE

LEARNING TARGET 1

S1

I will learn the **definition** of diversity and **why** it is important in an ecosystem.

S2

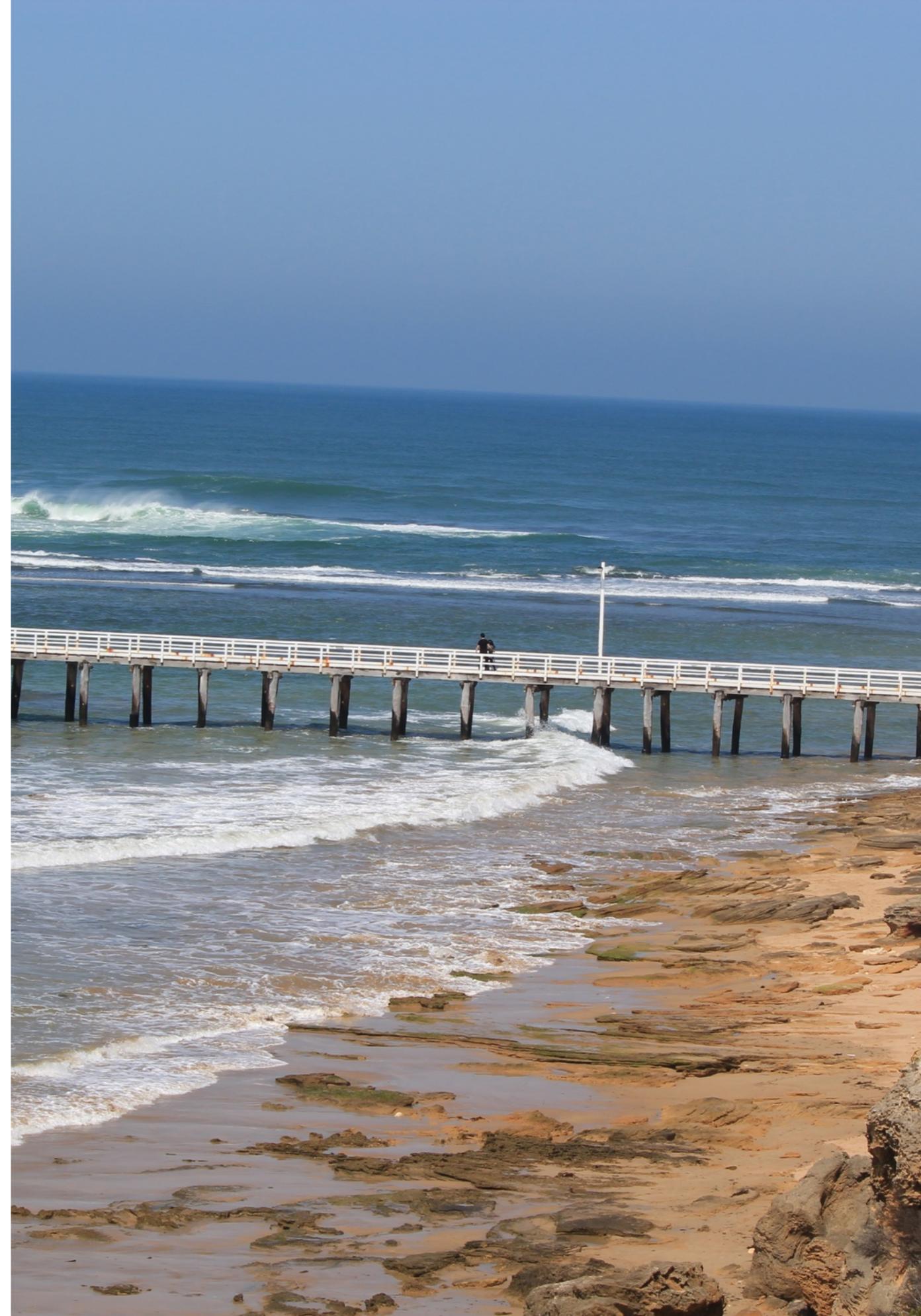
I will **learn how** biodiversity allows many organisms to live within the same ecosystem.

S3

I will **learn how** biodiversity allows many organisms to live within the same ecosystem.

S4

I can **explain** how biodiversity allows many organisms to live within the same ecosystem. I can **classify** the different organisms, and describe their interactions using food webs



S1 INFORMATION

I will learn the **definition** of diversity and **why** it is important in an ecosystem.

TO DO before starting the final task (30 mins).

Watch the “What is Biodiversity?” video:

<https://www.youtube.com/watch?v=ErATB1aMiSU>

Learn about food chains here: (5 mins)

<https://www.youtube.com/watch?v=Cd1M9xD482s>

More about food chains here: (3 mins)

<https://www.youtube.com/watch?v=MUKs9o1s8h8>

Definitions of organisms within a food chain:

http://www.bbc.co.uk/bitesize/ks3/science/organisms_behaviour_health/food_chains/revision/5/

Your **FINAL TASK**

1. Write down a definition in your own words of the following terms, and give example for each. (Some of these you may have to look up yourself.) (30 mins)

- | | | |
|-----------------|--------------|---------------|
| a. Organism | d. Consumer | g. Herbivore |
| b. Biodiversity | e. Habitat | h. Ecosystem |
| c. Producer | f. Carnivore | i. Food chain |

2. Use your definition for Biodiversity to explain what this statement means:

If there was no biodiversity, all animals would be the same, eat the same things and live in the same type of habitat. Why would this be a bad thing?

Your answer must include your definition of biodiversity and habitat. You must also explain an ecosystem, such as the ocean, in your response.(10 mins)

3. Choose one of the food chains listed in this website [here](#). Draw out your food chain using a app on your iPad, or on paper, and explain each organism using your definitions. It should include pictures of the organisms, and arrows showing who eats who. **(You must make your own food chain using images you have found, do not copy one from the internet!)** (30 minutes)

Submit to StudyTurf

Completed definitions for all the terms listed above, and an example of each

Your detailed response to the statement about biodiversity.

Your own food chain diagram complete with images and arrows.

Success Criteria

I understand the definition of diversity.

I understand what an ecosystem is.

I understand the concept of biodiversity.

S2 KNOWLEDGE

I will learn how biodiversity allows many organisms to live within the same ecosystem.

TO DO before starting the final task.

Watch the “What is Biodiversity?” video:

<https://www.youtube.com/watch?v=aqtdalkxnQo>

Learn about food chains here: (5 mins)

<https://www.youtube.com/watch?v=Cd1M9xD482s>

More about food chains here: (3 mins)

<https://www.youtube.com/watch?v=MuKs9o1s8h8>

Definitions of organisms within a food chain:

http://www.bbc.co.uk/bitesize/ks3/science/organisms_behaviour_health/food_chains/revision/5/



Your **FINAL TASK**

1. Write down a definition in your own words of the following terms, and give example for each. (Some of these you may have to look up yourself.) (30 mins)

- | | | |
|-----------------|--------------|---------------|
| a. Organism | d. Consumer | g. Herbivore |
| b. Biodiversity | e. Habitat | h. Ecosystem |
| c. Producer | f. Carnivore | i. Food chain |

2. Use your definition for Biodiversity to explain what this statement means:

If there was no biodiversity, all animals would be the same, eat the same things and live in the same type of habitat. Why would this be a bad thing?

Your answer must include your definition of biodiversity and habitat. You must also explain an ecosystem, such as the ocean, in your response.(10 mins)

3. Choose one of the food chains listed in this website [here](#). Draw out your food chain using a app on your iPad, or on paper, and explain each organism using your definitions. It should include pictures of the organisms, and arrows showing who eats who. **(You must make your own food chain using images you have found, do not copy one from the internet!)** (30 minutes)

4. Predict what would happen if all animals in the last part of your food chain disappeared for good. What would happen to the ecosystem? Your answer needs to include examples and evidence (10 minutes)

Submit to StudyTurf

Completed definitions for all the terms listed above, and an example of each.

Your detailed response to the statement about biodiversity.

Your own food chain diagram complete with images and arrows.

Your prediction about to the ecosystems if your food chain was changed.

Success Criteria

I understand the concept of biodiversity.

I understand how all the organisms in an ecosystem are linked.

S3 KNOW HOW

I will learn how biodiversity allows many organisms to live within the same ecosystem.

TO DO before starting the final task.

Watch the “Secret Life of Plankton” video (6 mins):

https://www.youtube.com/watch?t=93&v=xFQ_fO2D7f0

Watch the “What is Biodiversity and why is it important?” video (7 mins):

<https://www.youtube.com/watch?v=7tgNamjTRkk>

Watch the “What is an Ecosystem?” Video:

<https://www.youtube.com/watch?v=aYmdrJWLQ4Y>

Watch the video about Trophic Levels.

<https://www.youtube.com/watch?t=16&v=qUZkWZ12A8s>

Read about Trophic Pyramids here:

http://www.bbc.co.uk/bitesize/ks3/science/organisms_behaviour_health/food_chains/revision/6/

Your **FINAL TASK**

1. Write down a definition in your own words of the following terms, and give example for each. (Some of these you may have to look up yourself.) (30 mins)

- | | | |
|-----------------|--------------|-------------------|
| a. Biodiversity | d. Ecosystem | g. Carnivore |
| b. Producer | e. Omnivore | h. Trophic Levels |
| c. Consumer | f. Herbivore | i. Decomposers |

2. Use your definition for Biodiversity to explain what this statement means:

If there was no biodiversity, all organisms would have exactly the same requirements to survive. Why would this cause problems in ecosystems?

Your answer must include your definition of biodiversity and habitat. You must also explain an ecosystem, such as the ocean, in your response.(10 mins)

3. Choose one of the food chains listed in this website [here](#). Draw out your food chain using a app on your iPad, or on paper, and explain each organism using your definitions. It should include pictures of the organisms, and arrows showing who eats who. **(You must make your own food chain using images you have found, do not copy one from the internet!)** (20 minutes)

4. Create a trophic pyramid as another way of showing your food chain. (10 minutes)

5. Using both your food chain, and trophic pyramid, predict what would happen if one of the organisms suddenly disappeared from the ecosystem. What would there be more of? What would there be less of? (10 minutes)

Submit to StudyTurf

Completed definitions for all the terms listed above, and an example of each.

Your detailed response to the statement about biodiversity.

Your own food chain diagram complete with images and arrows.

Your trophic pyramid of your food chain

Your prediction about the ecosystem if your food chain was changed, including examples and evidence.



Success Criteria

I understand the importance of Biodiversity

I can create a food chain and trophic pyramid to show the process within an ecosystem.

I understand how each organism plays an important role.

S4 WISDOM

I can explain how biodiversity allows many organisms to live within the same ecosystem. I can classify the different organisms, and describe their interactions using food webs

TO DO before starting the final task.

Watch the “Secret Life of Plankton” video (6 mins):

https://www.youtube.com/watch?t=93&v=xFQ_fO2D7f0

Watch the “What is Biodiversity and why is it important?” video (7 mins):

<https://www.youtube.com/watch?v=7tgNamjTRkk>

Watch the “What is an Ecosystem?” Video:

<https://www.youtube.com/watch?v=aYmdrJWLQ4Y>

Watch the video about Trophic Levels.

<https://www.youtube.com/watch?t=16&v=qUZkWZ12A8s>

Read about Trophic Pyramids here:

http://www.bbc.co.uk/bitesize/ks3/science/organisms_behaviour_health/food_chains/revision/6/

Your **FINAL TASK**

1. Write down a definition in your own words of the following terms, and give example for each. (Some of these you may have to look up yourself.) (30 mins)

- | | | |
|-----------------------|--------------|-------------------|
| a. Producer | d. Ecosystem | g. Carnivore |
| b. Primary Consumer | e. Omnivore | h. Trophic Levels |
| c. Secondary Consumer | f. Herbivore | i. Decomposers |

2. Use your definition for Biodiversity to explain what this statement means:

If there was no biodiversity, all organisms would have exactly the same requirements to survive. Why would this cause problems in ecosystems?

Your answer must include your definition of biodiversity and habitat. You must also explain an ecosystem, such as the ocean, in your response.(10 mins)

3. Choose one of the food chains listed in this website [here](#). Draw out your food chain using a app on your iPad, or on paper, and explain each organism using your definitions. It should include pictures of the organisms, and arrows showing who eats who. **(You must make your own food chain using images you have found, do not copy one from the internet!)** (30 minutes)

4. Create a trophic pyramid as another way of showing your food chain. (10 minutes)
5. Using both your food chain, and trophic pyramid, predict what would happen if one of the organisms suddenly disappeared from the ecosystem. What would be the consequence for the ecosystem? (10 minutes)

Submit to StudyTurf

Completed definitions for all the terms listed above, and an example of each.

Your detailed response to the statement about biodiversity.

Your own food chain diagram complete with images and arrows.

Your trophic pyramid of your food chain, complete with explanations of each level.

Your prediction about the ecosystem if your food chain was changed, including examples and evidence.

Success Criteria

I understand the importance of Biodiversity

I can create a food chain and trophic pyramid to show the process within an ecosystem.

I understand how each organism plays an important role.



4

MATHEMATICS

LEARNING TARGET 1

M1

I **understand** what discrete and continuous data is and can calculate the mean, median and mode.

M2

I can **identify** discrete and continuous data and successfully calculate the mean, median, mode and range. I can also **interpret** graphs of this data

M3

I can **summarise** data collected into dot and stem and leaf plots. I can **interpret** these graphs.

M4

I can **display** and **interpret** dot and stem and leaf plots including references to measures of central tendency



M1 INFORMATION

I understand what discrete and continuous data is and can calculate the mean, median and mode.

TO DO before starting the final task.

Click on this [link](#) or use internet to find out what the difference between discrete, categorical and continuous data is.

When writing an explanation use at least 3 examples of each type of data.

Watch this [presentation](#) on how to calculate the mean (average), median and mode.

Complete these [questions](#) about mean median and mode.

Your **FINAL TASK**

Develop a presentation showing your knowledge of mean, median and mode.

Collect data from 20 people on one of the following questions.

- Number of siblings
- Number of houses lived in
- Number of Cousins
- Number of countries visited

When you have collated the data find the mean, mode and median of the data set – make sure you include the process you went through to find the mean, median and mode (not just the answer).

Was the data you collected discrete or continuous, how do you know?

Submit to StudyTurf

Guiding Activities: Explanation on the difference between the 3 types of data and the completed questions on mean, median and mode

Final Task/s: Presentation, Collection of data, Mean, Mode and Median of this data (including your working out) and an answer to the question if the data is discrete or continuous.

Success Criteria

I am able to tell the difference between discrete and continuous data.

I can calculate the mean (average), median and mode of small data sets.

M2 KNOWLEDGE

I can **identify** discrete and continuous data and successfully calculate the mean, median, mode and range. I can also **interpret** graphs of this data

TO DO before starting the final task.

Click on this [link](#) or use internet to find out what the difference between discrete, categorical and continuous data is.

Watch this [presentation](#) on how to calculate the mean (average), median and mode.

Complete these [questions](#) about mean median and mode.

Watch this [presentation](#) on how to interpret basic statistical graphs.

Your **FINAL TASK**

Develop a presentation showing your knowledge of mean, median and mode.

1. Collect data from 20 people on one of the following questions.

- Number of siblings
- Number of houses lived in
- Number of Cousins
- Number of countries visited

2. When you have collated the data find the mean, mode and median of the data set – make sure you include the process you went through to find the mean, median and mode (not just the answer).

3. Was the data you collected discrete or continuous, how do you know?

4. Using 'Pages' make column graph of your data, making sure all the correct labels are present. Take a screenshot of the graph and import it into 'Skitch', annotate this graph to show where the mean, median and mode should go.

Submit to StudyTurf

Guiding Activities: Explanation on the difference between the 3 types of data and the completed questions on mean, median and mode

Final Task/s: Your final task

Success Criteria

I know and can explain what discrete and continuous data is.

I can know and can calculate the mean, median, mode and range.

I can explain what basic statistical graphs are showing.

M3 KNOW HOW

I can **summarise** data collected into dot and stem and leaf plots. I can **interpret** these graphs.

TO DO before starting the final task.

Review your knowledge of mean, median and mode by watching the [presentation](#) on how to calculate the mean (average), median and mode.

Read the [information](#) about graphs of univariate data (data that has one variable).

Complete the [graphing worksheet](#).

Your **FINAL TASK**

Complete a survey, the data you collect must be numerical (not categorical - ie. How many pieces of rubbish did you throw out after eating your lunch? Not, what did you throw out of you lunch box?)
Make sure that you have least surveyed 20 people.

Collate this data into either dot or stem and leaf plot.

Calculate the mean, median, mode and range.

Explain when you would use a stem and leaf plot, and when you would use a dot plot.

Submit to StudyTurf

- Graphing Worksheet
- Completed Survey
- Data collated into graphs
- Calculated mean, median, mode and range.
- Explanation

Success Criteria

I can use my knowledge of the mean, median, mode and range to make dot and stem and leaf plots.

I can explain why I use certain graphs and what the data is showing.

M4 WISDOM

I can **display** and **interpret** dot and stem and leaf plots including references to measures of central tendency

TO DO before starting the final task.

Review your knowledge of mean, median and mode by watching the [presentation](#) on how to calculate the mean (average), median and mode.

Read the information on [Univariate](#) and [Bivariate](#) data and how to use different graphs to display the collect data.

Make a glossary for yourself explaining the following terms (and how to calculate them if needed). Put this in your [Maths Summary Book](#).

Mean	Median	Mode	Range	Univariate	Bivariate
	Histogram	Discrete Data		Continuous Data	

Success Criteria

I can use my knowledge of statistics to make, and interpret using correct statistical language univariate and bivariate graphs.

I know what measures of central tendency are.

Your **FINAL TASK**

1. Go to [Chapter 9.3](#) and complete one fluency question and one reasoning/open ended question
2. Go to [Chapter 9.5](#) and complete one fluency question and one reasoning/open ended question
3. Complete a survey, the data you collect must be numerical (not categorical - ie. How many pieces of rubbish did you throw out after eating your lunch? Not, what did you throw out of you lunch box?) Make sure that you have least surveyed 20 people.
4. Collate this data into either dot or stem and leaf plot.
5. Calculate the mean, median, mode and range.
6. Explain when you would use a stem and leaf plot, and when you would use a dot plot.

Submit to StudyTurf

- Definitions of terms
- Chapter Questions 9.3 and 9.5.
- Completed Survey
- Data collated into graphs
- Calculated mean, median, mode and range.
- Explanation