Te Poutāhū
Curriculum Centre

Embedding Numeracy in Commerce

Teacher information

Te Tāhuhu o te Mātauranga
Ministry of Education

Te Kāwanatanga o Aotearoa
New Zealand Government

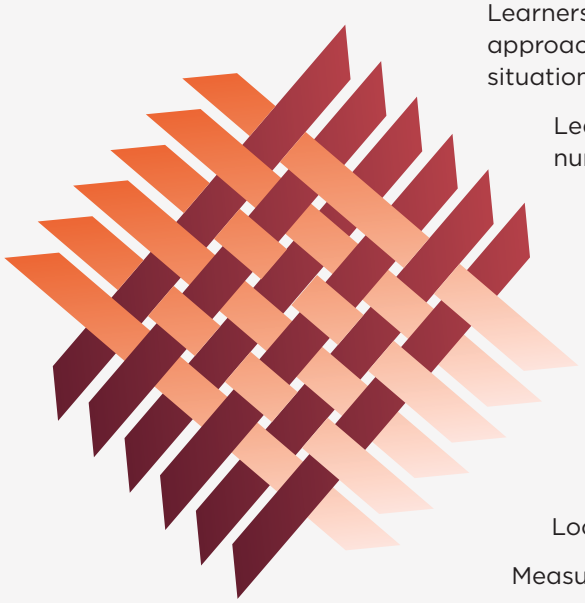
What is Numeracy about?

Numeracy is a foundational skill that enables access to further learning, develops important life skills, and allows people to fully engage in work and in their communities.

Everyone has a role to play in developing NCEA numeracy, including school leaders, kaiako, whānau, and ākonga.

The Numeracy Learning Matrix

The numeracy Learning Matrix weaves together Process Ideas and Content Ideas, as illustrated below:



Process Ideas

Learners formulate mathematical and/or statistical approaches to solving problems in a range of meaningful situations

Learners use mathematics and statistics to meet the numeracy demands of a range of meaningful situations

Learners explain the reasonableness of mathematical and statistical responses to situations

Content Ideas

Operations on numbers

Mathematical relationships

Spatial properties and representations

Location and navigation

Measurement

Statistics and data

Elements of chance

Numeracy Learning Matrix

When kaiako make numeracy explicit in their learning programmes, and when school leaders and whānau also support numeracy learning, ākonga:

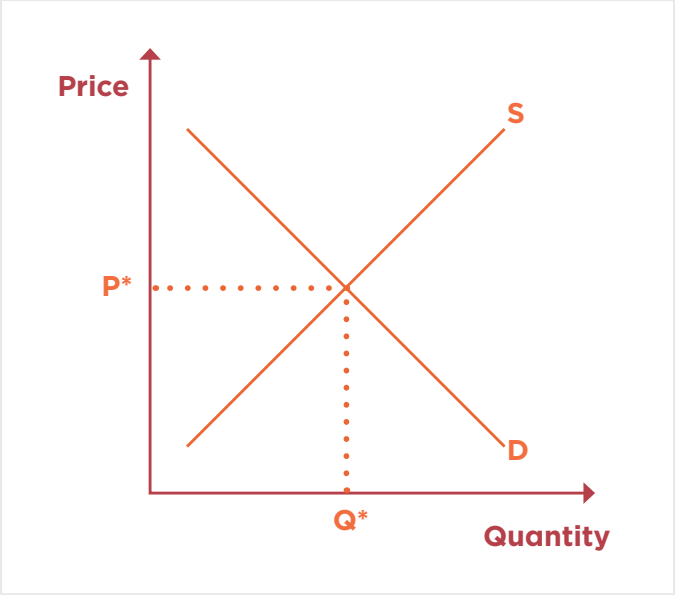
- gain access to different perspectives of mathematics and statistics in a range of authentic and meaningful contexts
- have multiple opportunities to practise their numeracy skills and transfer this knowledge between NCEA learning areas and their own lives
- can meet subject-specific numeracy demands.

This resource focuses on the embedding of Numeracy, using 'Supply and Demand' (SD) as a context for learning in **Commerce**. Through their engagement in this learning, ākonga will:

- use mathematics and statistics to meet the numeracy demands of a range of meaningful situations
- explain the reasonableness of mathematics and statistics responses to situations
- explore mathematical relationships.

What makes the SD (numeracy) tool useful is that you can use it to predict the effect a change in a market's conditions has on the price and quantity sold in that market

Supply / Demand Model as a Numeracy Tool



Supply Demand as a Numeracy Tool

Supply and Demand (SD) is a tool that can be used to model responses to changes that affect a market.

Introducing Demand

To graph demand, we start with a 'demand schedule'. This is a table of the quantity demanded at each price (eg, how much consumers are willing and able to buy at each price).

Activity One

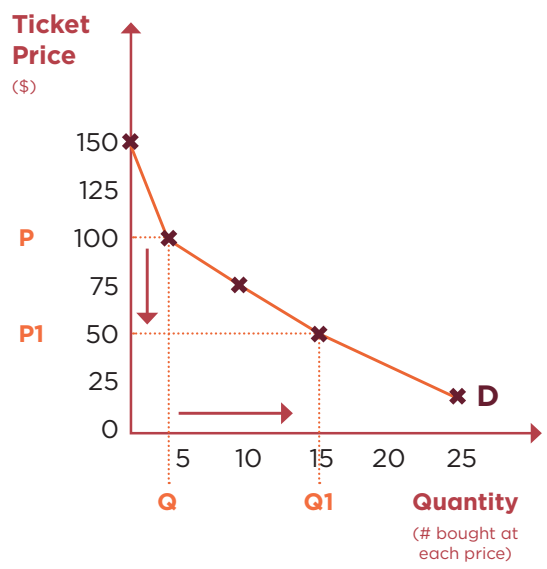
Determine the class demand for Warriors tickets and plot the Demand Curve (on the graph provided), below the Demand Schedule.

Class Demand Schedule for Warriors Tickets

Price ($)	Number of tickets bought by class
150	0
100	3
75	8
50	15
25	25

Possible answers

Class Demand for Warriors Tickets



Teacher Hints

Begin with an activity where the ākonga interpret XY co-ordinates.

1. Use this to introduce the language of supply-demand
2. Ask ākonga to plot a demand curve using data you have collected in a classroom exercise (eg, derive a demand schedule for the Warriors tickets by asking how many would buy a ticket at different prices).
3. By plotting points on a grid, they can complete a demand curve showing the Class Demand for Warriors tickets.

Note: You will find more students prepared to buy tickets at lower prices.

You need to be explicit in pointing out that price (on Y-axis) is the independent variable (which is different from the graphical convention used in Mathematics & Statistics and Science), where the independent variable (also called control) is always on the X-axis.

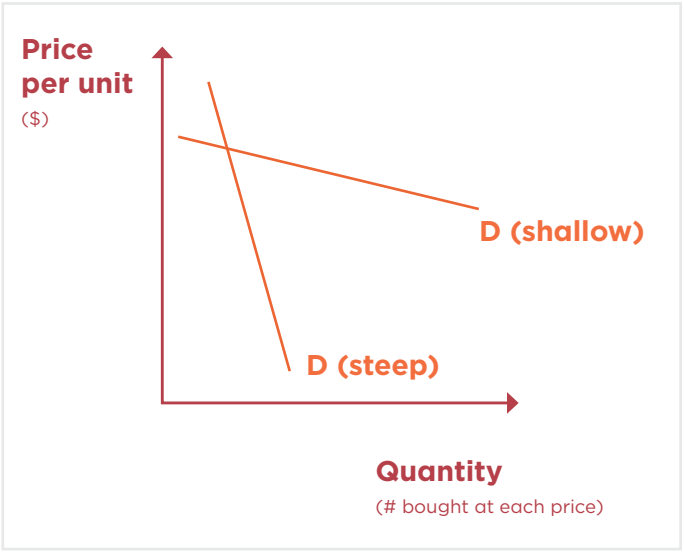
Activity Two

On the Warriors tickets graph, show the impact of a price decrease on the quality demanded by labelling prices $100 = **P** and $50 = **P1** to show the impact on quantity **Q** and **Q1**.

1. Use arrows to show the direction of change in price (from P to P1) and quantity (from Q to Q1).
2. It is unlikely that students will buy Warriors tickets above $150 — why?
   Answer: Tickets above $150 are not affordable for students.
3. What does the negative slope of the demand line indicate about the impact of a price change on quantity demanded?
   Answer: As price decreases quantity demanded / bought increases.
4. Use a specific good/service to explain why a decrease in price will result in consumers buying more of the good or service
   Answer: If the price of **clothes** (eg, summer sale) decreases, consumers will buy more as they can afford more (with their fixed income).

Extension: Steep and Shallow Demand Curves

Market for _____
a good or service



Teacher Hints

Ākonga giving their responses to BOTH steep and shallow curves provide a range of contexts for them to connect to.

See Activity Three on the next page.

Activity Three

Explain what would cause the gradient of a demand curve to be steep or shallow.

1. Steep Demand Curve

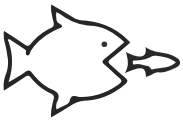
Occur when consumers are relatively unresponsive to price changes

ie, large change in price › small change in quantity demanded

a. Choose a specific product that you think will have a steep demand curve and explain why?
   Answer: Petrol will have a steep D curve as workers need it to fuel their cars so they can get to work, as a result they tend to keep buying a similar amount even if prices increase.
   ie, relatively large changes in price result in relatively small changes in the quantity the D curve is STEEP.

2. Shallow Demand Curve

Occur when consumers are relatively responsive to price changes
ie, small change in price › large change in quantity demanded



a. Choose a specific product that you think will have a shallow demand curve and explain why?
   Answer: Fast food - eg, fish and chips (F+C). If the price of F+C increases, other fast foods now become relatively cheaper, so many consumers will stop buying F+C and switch to other fast foods (eg, McDonalds).
   ie, relatively small change in price result in relatively large change in quantity so the D curve is SHALLOW.

Activity Four

Use the supply schedule for pizzas to plot the supply curve (on the graph provided), below the supply schedule.

Introducing Supply

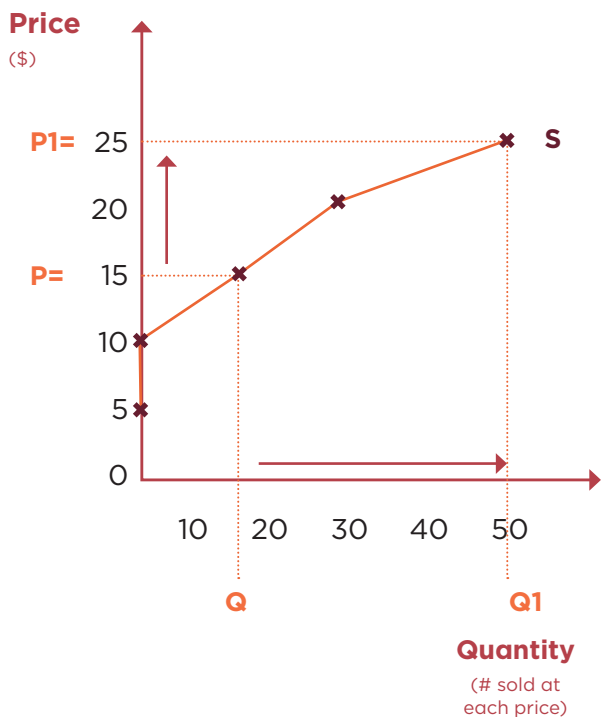
To graph supply, we start with a "supply schedule", which is a table of the quantity supplied at each price (eg. how many producers are willing and able to sell at each price).

Supply Schedule for Woodfired Pizza

Price ($)	Number of pizzas prepared to sell (per day)
25	50
20	25
15	15
10	0
0	0

Put the letter 'S' at the top right of your S curve.

Supply of Woodfired Pizzas



Teacher Hints

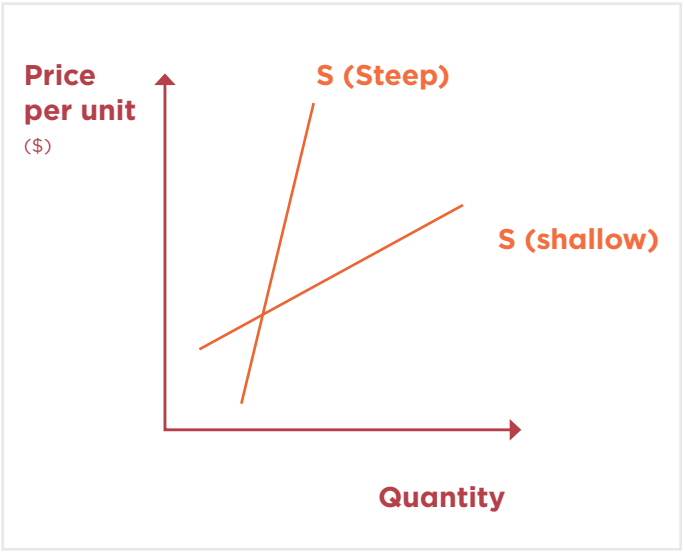
Note: The supply curve is on an XY graph.

Activity Five

On the woodfired pizza graph, show the impact of a price increase on quality by labelling $15 = **P** and $25 = **P1** to show the impact on quantity **Q** and **Q1**.

1. Use arrows to show the direction of change in price and quantity.
2. Why do you think ZERO pizzas are supplied below $10?
   Answer: $10 is not enough to cover the cost of producing each pizza (ie, it would sell for a loss)
3. What does the positive slope of the supply line indicate about the impact of a price change on quantity supplied?
   Answer: As price increases the quantity supplied and produced increases.
4. Use a specific good/service to explain why an increase in price will result in producers offering more of the good or service for sale.
   Answer: If the price of pizzas increases (but price for other Italian foods don't change) Italian restaurants will produce more pizzas, as they are now relatively more profitable, and they switch resources from other foods (like spaghetti) to make more pizzas, to earn more profit.

Extension: Steep and Shallow Supply Curves



Teacher Hints

Ākonga giving their responses to BOTH steep and shallow curves provide a range of contexts for them to connect to.

See Activity Six on the next page.

Activity Six

1. Steep Supply Curve

Occur when producers are relatively unresponsive to price changes
ie, large change in price › small change in quantity supplied

a. Choose a specific product that you think will have a steep supply curve and explain why?
Answer: As the number of seats at Mount Smart is relatively fixed, when Taylor Swift and U2 sold out their concerts, even though some fans (consumers) were prepared to pay very high prices the organisers cannot sell any more tickets than the stadium holds. ie, relatively large changes in price result in relatively small changes or no change in quantity so the S curve is STEEP.

2. Shallow Supply Curve

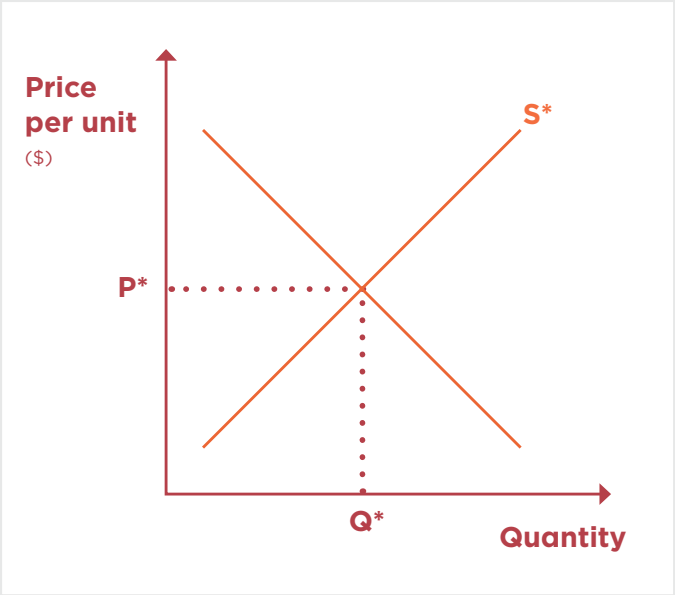
Occur when producers are relatively responsive to price changes
ie, small change in price › large change in quantity supplied

a. Choose a specific product that you think will have a shallow supply curve and explain why?
Answer: Suppose in 2023, lettuces had a good growing season, so lots of lettuces could be grown at relatively low cost per unit. Small price rises will see farmers change to the easy to grow lettuces (instead of growing carrots, for example). ie, relatively small changes in price result in relatively large changes in quantity so the S curve is SHALLOW.

Equilibrium on a Supply and Demand Graph

Market equilibrium is defined as the price at which quantity demanded, and quantity supplied are equal (ie, it is the point (on a graph) where the demand and supply curves intersect).

Graph 1: Market for _____
a good or service



Activity Seven

Answer the questions below which relate to Graph 1.

1. Where is the intersection of S + D on Graph 1?

a. Describe this intersection in terms of X and Y coordinates

Note: This is called the equilibrium.

Answer: Equilibrium P* and Q*

2. Explain what equilibrium means in terms of Quantity Supplied and Quantity Demanded — what does this means for the market's consumers and producers?

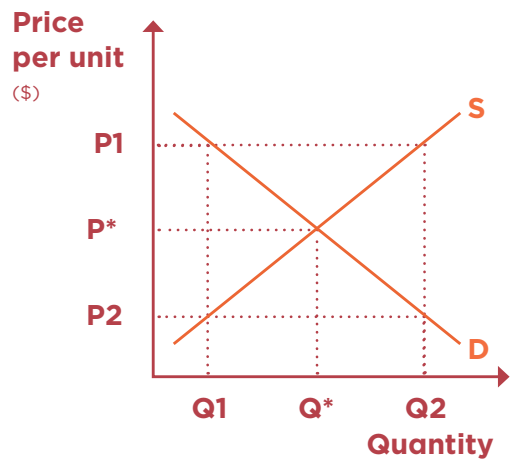
Answer: Equilibrium occurs at P* where Qd = Qs.

This means the amount consumers are prepared to buy at P* exactly equals the amount producers are prepared to sell (ie, Qd and Qs = Q*).

Activity Eight

Answer these questions below which relate to Market for Jeans.

Market for Jeans



Teacher Hints

For simplicity, the S and D curves are drawn as straight lines with neither steep or shallow gradients.

Good mathematicians / commerce ākonga may draw the slopes at different gradients, based on the characteristics of the product being bought or produced in that specific market.

The format of the questions given here is that an observation is made, or a stance is taken, and then a justification of why this observation / stance occurs is given.

1. If the price rises above P* (the equilibrium) (eg, to P1), what does the gap between Q1 and Q2 on the represent?

Surplus or **Shortage** (Circle correct answer)

2. What effect will your answer to **1.** have on firms and what will happen to price?

Answer: Firms will not be selling all the products they are producing (and have incurred expenses producing). So, they will lower the price (to P*) to sell the excess products and this should increase their profits.

3. If the price falls below P* (the equilibrium) (eg, to P2), what does the gap between Q1 and Q2 on the represent?

Surplus or **Shortage** (Circle correct answer)

4. What effect will your answer to **3.** have on firms and what will happen to price?

Answer: Not all consumers who want jeans will be able to buy them at P2 so some consumers (those with higher income or those with stronger preference) will (theoretically) bid the price up. Firms will probably respond to continual need to order more stock and queues of disgruntled customers by increasing the price (to P*), thereby removing the shortage.

Extension

5. Look at your answers to Questions **2.** and **4.** and explain how self-interest will always move a market to the equilibrium.

Answer: for **2.** - If P is above P* (equilibrium), the market has a surplus, so producers are not covering the cost of unsold stock, so they act in their best interest by lowering the price, to sell unsold stock and increase profit.

Answer: for **4.** - If P is below P* (equilibrium), the market has a shortage, so not all consumers are able to get the purchases they want. As a result, those who can afford to will be willing to pay more for jeans — acting in their best interest they bid up the price by offering to pay more if the producer guarantees them a pair(s) of jean(s).

Event Activities

Each of the EVENTS below will change the market conditions for the market specified.

- Use your Supply Demand (SD) whiteboard tool to show the impact of the following events on the SD graph for that market.
- Transfer the graph, you have created using the whiteboard, to the relevant Market Graph in your Student Workbook to show the effect of the event on that market, and then answer the questions about the direct and flow-on effects of the event.
- Use your Market SD graph as a tool to justify your predictions (ie, refer to changes shown on the SD graph, such as the changes of market Q and P, to support your predictions about direct +/or flow on effects).

Teacher Hints

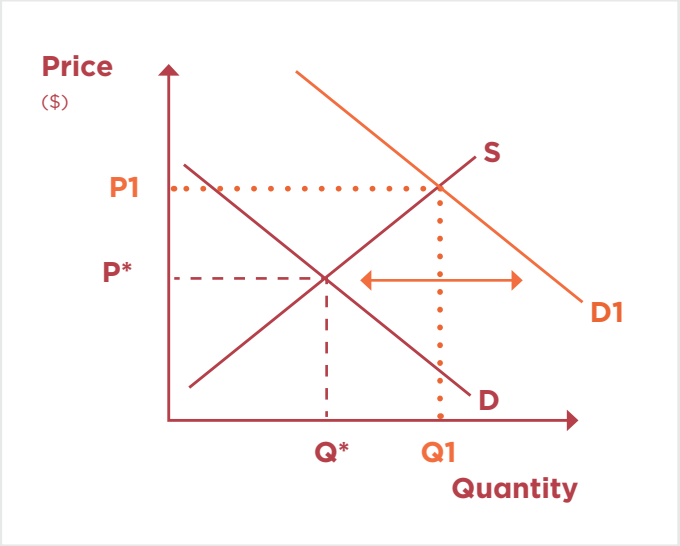
Identifying direct effects on quantity and price on a market will allow ākonga to make logical predictions about the flow-on effects for that market and for the Aotearoa New Zealand economy. For example, in the context of employment, economic growth, well-being, equity, and inflation.

Answers to Event Activities

Event 1

The market for Marmite is affected by a decrease in the price of bread.

Graph 1 - Market for Marmite



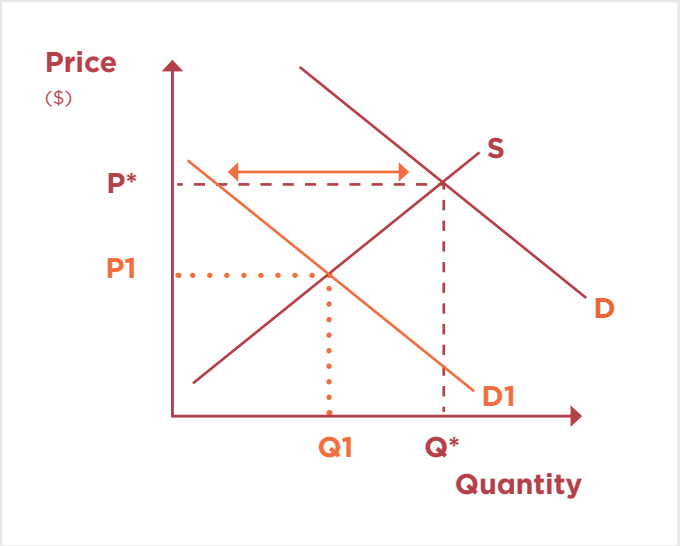
The D curve shifts right because the reduced price of bread means more bread is bought, so more Marmite, as a spread, will be needed. More Marmite is bought at each price, shifting the D curve right.

Direct effects: Increased price of Marmite, and an increase in the quantity of Marmite produced and sold (Q1).

Flow on effects: Marmite producing firms are more financially viable (rectangle P*xQ* < rectangle P1xQ1), so Marmite firms are now earning more revenue. Unemployment could fall as more workers are required to produce a larger quantity of Marmite (Q1).

Event 2

Graph 2 - Market for Warriors home game tickets



The market for Warriors home game tickets is affected by a run of losses in the weeks leading up to a home game (at Mt Smart Stadium).

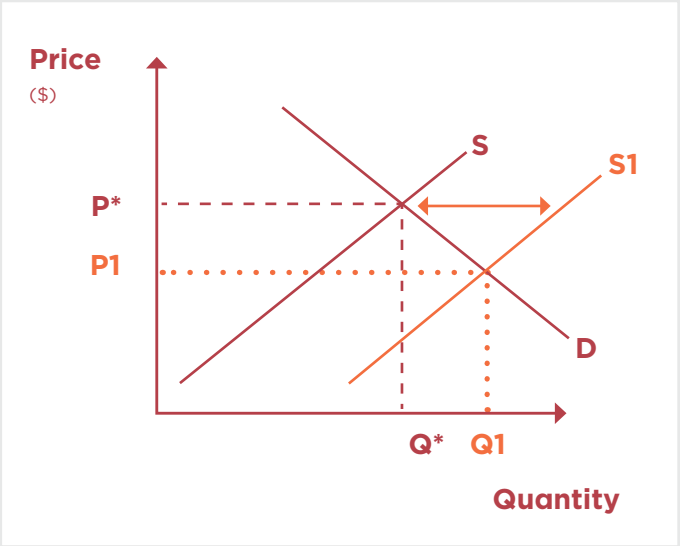
The D curve shifts left because a run of losses means some fans "lose the faith" and choose not to go to the home match, so less tickets are bought at each price, shifting the D curve left.

Direct effects: Decreased price of Warriors home game tickets (P1).

Flow-on effects: Warriors Club is less financially viable (rectangle P*xQ* > rectangle P1xQ1), so the Warriors Club is now earning less revenue. Unemployment could rise as less sales of tickets (Q1) means less workers required for security during the game or to clean up the stadium after the match.

Event 3

Graph 3 - Market for Pizzas



The market for pizzas is affected by a decrease in the price of basil (a herb).

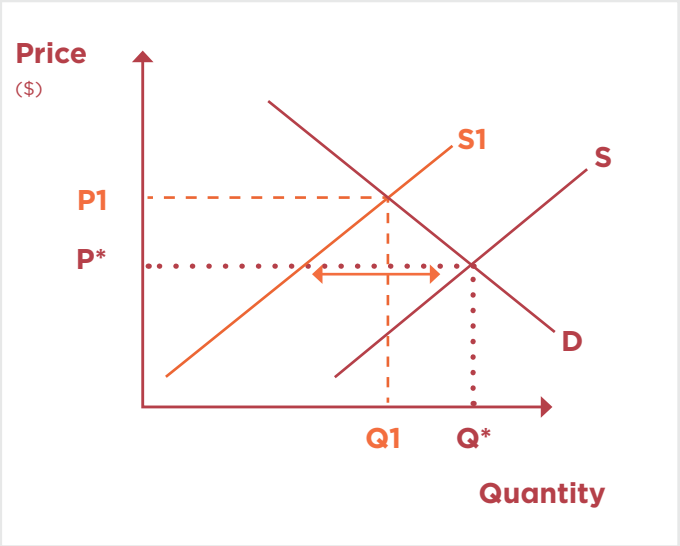
The S curve shifts right because a decrease in the price of an ingredient lowers the cost of producing pizzas, so pizzas are now relatively more profitable to produce, and pizza firms increase their production of pizzas at each price — shifting the S curve right.

Direct effects: Decrease in the price of pizzas (P1), and an increase in the quantity of pizzas produced and sold (Q1).

Flow-on effects: Pizza firms are more financially viable (rectangle P*xQ* about is about the same size as rectangle P1xQ1) so pizza firms are earning about the same revenue, but the cost of ingredients has fallen so profits will increase. Unemployment could fall as more pizza sales (Q1) mean more workers will be required to produce the larger quantity (eg, the new pizza shop may open requiring staff).

Event 4

Graph 4 - Market for Milk



The market for milk is affected by legislation for "climate change", meaning that dairy farmers must reduce their methane emissions.

The S curve shifts left because the legislation means dairy farmers will (probably) have to reduce their cow numbers, so less milk can be produced at each price — shifting the S curve left.

Direct effects: Increase in the price of milk (P1) and decrease in the quantity of milk produced and sold (Q1).

Flow on effects: Cheese producers will face increased costs as the price of milk (a key ingredient) has increased in price (P1), so they will be less financially viable. Producing cheese will be less profitable. Unemployment could rise as there would be less cows on farms, producing less milk (Q1), so dairy farm owners might lay off milkshed workers, or offer them reduced hours of work.

Teacher Hints

The Supply Demand Whiteboard on the next 2 pages can be printed as a double-sided A4 sheet, then laminated.

Ākonga can use non-permanent pens to show changes on the whiteboard graphs and reuse for subsequent activities.

The Student Hints help students shift the correct curve.

Supply Demand Whiteboard

Remember to FULLY LABEL changes on your graph.

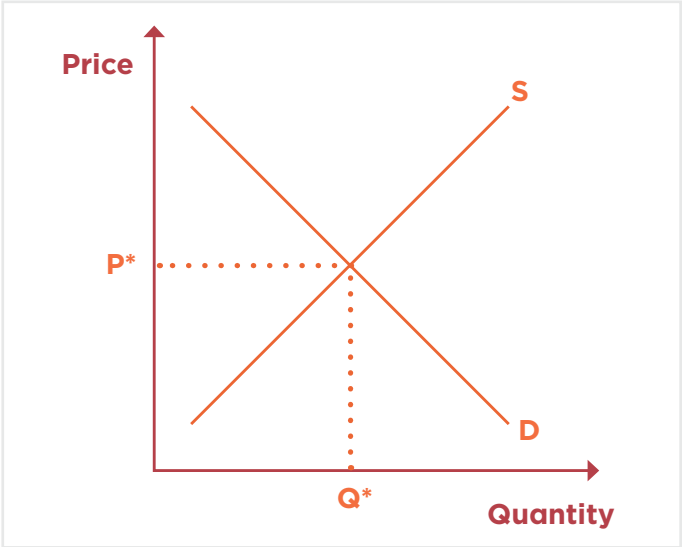
› Label new curve(s)

› Draw straight dotted lines from the new equilibrium to the axes.

› Label the new **P1** + **Q1** at the end of the new dotted lines

› Draw an arrow between dotted lines to show changes in **P** + **Q**.

Graph 4 - Market for



Student Hints

1. **Shift supply left** (if you think the change will ↓**Q**) or **right** (if you think the change will ↑**Q**). Factors that change supply include:

- costs of production
- price of another product the producer can also produce.
- productivity
- external factors affecting supply (eg, cyclones)

2. **Shift demand left** (if you think the change will ↓**Q**) or **right** (if you think the change will ↑**Q**) Factors that change demand include:

- income
- tastes
- price of related goods
  - complements
  - substitutes.

3. **Price changes** cause movements along S + D curves NOT shifts of D or S curves. *Note: if (after a curve shift) P↑ and if this P↑ flows-on to other markets* it may cause **inflation**.

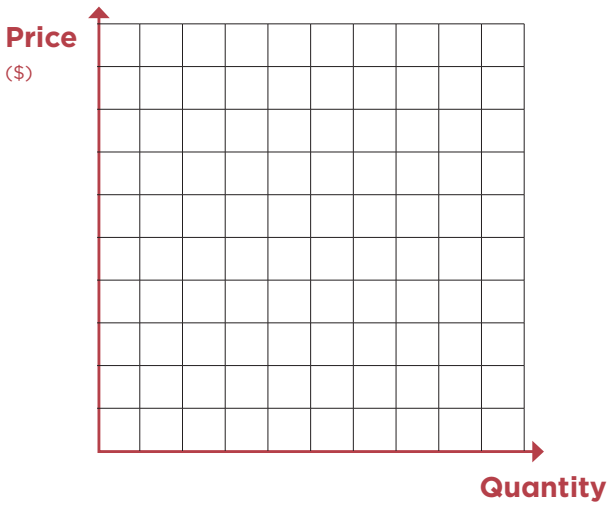
4. **Revenue** is calculated by multiplying price **x** quantity:

- The rectangle bound by **P+Q** or **P^1+Q^1** shows the **revenue** that firms in the market will receive from customers

Remember to FULLY LABEL changes on your graph.

- Start by drawing S + D curves and straight dotted lines from equilibrium to the axes. Then label Supply **S**, Demand **D**, equilibrium price **P** and equilibrium quantity **Q**
- Label new curve(s) **D1** or **S1**
- Draw straight dotted lines from the new equilibrium to the axes.
- Label new price **P1** + quantity **Q1** at the end of the new dotted lines
- Draw an arrow between dotted lines to show changes in **Price** + **Quantity**.

Market for _____



Student hints continued

5. **Quantity sold** will be an indicator of **resources being used** by producers.
   - If Q↑ then more resources are required to produce that product (e.g., more staff may be hired so **employment increases**)

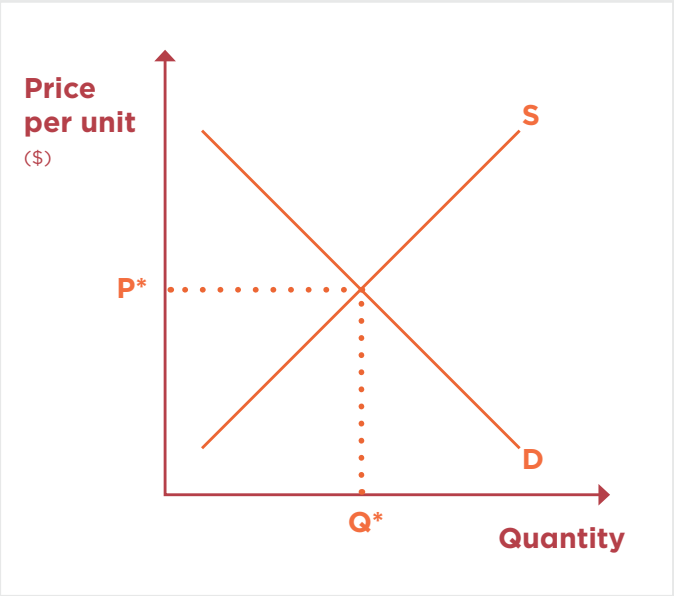
Note if Q↓ some staff may be fired.

6. **Restoring equilibrium**
   - If **D** shifts right or **S** shifts left it will cause a **shortage** at **P*** so consumer bid up prices to guarantee their purchase, or producers raise the price to reduce problems associated with a shortage of stock (eg, to reduce a need to re-order stock or handle customer queues).
   - If **D** shifts left or **S** shifts right, it will cause a **surplus** at **P*** so producers lower the price to sell their excess stock.
7. **Sales taxes + Subsidies**
   - A sales tax shifts **S + tax** vertically up by the $ amount of tax (e.g., $5 tax shifts S up $5 at each quantity level).
     Label the new curve **S + tax**
   - A subsidy shifts **S + subsidy** vertically down by the $ amount of subsidy (e.g., $5 subsidy shifts S down $5 at each quantity level). Label the new curve **S + subsidy**

Embedding Numeracy in Commerce

Student Workbook

Supply / Demand Model as a Numeracy Tool



What makes the SD (numeracy) tool useful is that you can use it to predict the effect a change in a market's conditions has on the price and quantity sold in that market.

Student Name
Class

Supply / Demand Model as a Numeracy Tool

Supply and Demand is a tool that can be used to model responses to changes that affect a market.

Introducing Demand

To graph demand, we start with a 'demand schedule'. This is a table of the quantity demanded at each price (eg, how much consumers are willing and able to buy at each price).

Activity One

Determine the class demand for Warriors tickets and plot the Demand Curve (on the graph provided), below the Demand Schedule.

Class Demand Schedule for Warriors Tickets

Price ($)	Number of tickets bought by class
150	_____
100	_____
75	_____
50	_____
25	_____

Student Hints

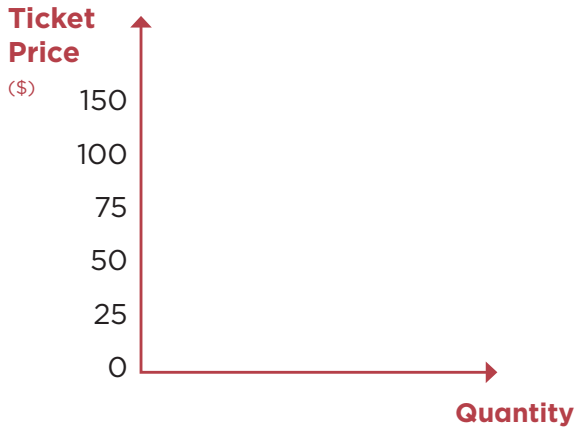
Demand = the quantity of a good or services consumers are willing and able to buy at various prices (cet par).

Ceteris paribus (cet par) is a Latin phrase meaning "all other things remain constant".

For example, we need to hold people's tastes and income constant while investigating the effect of a price change.

Remember to put the letter D at the bottom right of your plotted demand curve.

Class Demand for Warriors Tickets



Note: The demand curve is on an XY graph. In Commerce, the convention is for quantity to be on the X-axes and price on the Y-axes. BUT in Commerce, price (on the Y-axes) is the *independent variable.*

Activity Two

On the Warriors tickets graph, show the impact of a price decrease on the quality demanded by labelling prices $100 = **P** and $50 = **P1** to show the impact on quantity **Q** and **Q1**.

Note Q is the quantity bought at **P** and **Q1** is the quantity bought a **P1**

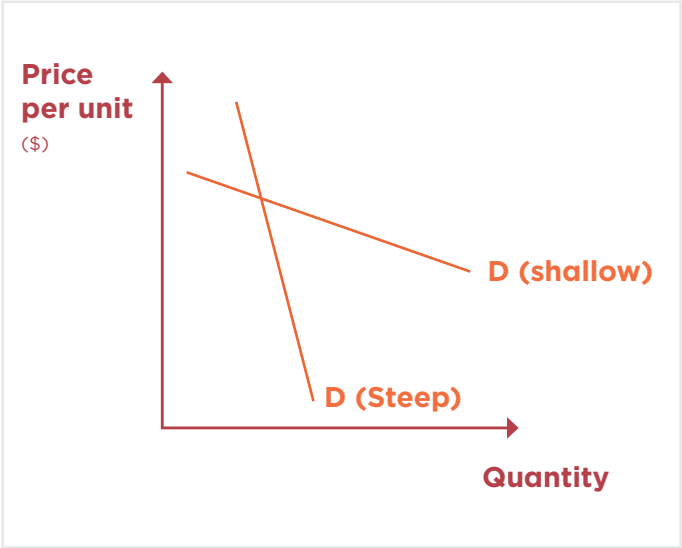
1. Use arrows to show the direction of change in price (from P to P1) and quantity (from Q to Q1).
2. It is unlikely that students will buy Warriors tickets above $150 — why?
   Answer:

3. What does the negative slope of the demand line indicate about the impact of a price change on the quantity demanded?
   Answer:

4. Use another good/service (not Warriors tickets) and explain why a decrease in price will result in consumers buying more of that good or service?
   Answer:

Extension: Steep and Shallow Demand Curves

Market for _____



Student Hints

A *necessity* (eg, petrol) will have a relatively steep demand curve as it is the only fuel for most cars, so consumers must buy it.

A good with *close substitutes* (eg, fast food) will have a relatively flat demand curve as there are lots of alternative consumers can switch to if its price increases.

Activity Three

Explain what would cause the gradient of a demand curve to be steep or shallow.

1. Steep Demand Curve

ie, large change in price › small change in quantity

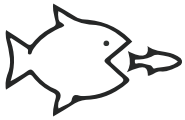
a. Choose a specific product that you think will have a steep demand curve and explain why?

Answer:

2. Shallow Demand Curve

Occur when consumers are relatively responsive to price changes

ie, small change in price › large change in quantity



c. Choose a specific product that you think will have a shallow demand curve and explain why?

Answer:

Introducing Supply

To graph supply, we start with a "supply schedule", which is a table of the quantity supplied at each price (eg, how many producers are willing and able to produce / sell at each price).

Supply Schedule for Woodfired Pizza

Price ($)	Number of pizzas prepared to sell (per day)
25	50
20	25
15	15
10	0
0	0

Student Hints

Supply = the quantity of a good or services producers are willing and able to provide to consumers at various prices (cet par).

For example, we need to hold costs and external influences on supply (like weather/ climate which affect growing conditions) constant while investigating the effect of the price change.

Activity Four

Use the supply schedule for woodfired pizzas to plot the supply curve (on the graph provided), below the supply schedule.

Supply of Woodfire Pizzas

Student Hints

Remember to put the letter **S** at the top right of your plotted supply curve.

Activity Five

On the woodfired pizza graph, show the impact of a price increase on quality by labelling $15 = P and $25 = P1 to show the impact on quantity Q and Q1.

Note Q is the quantity bought at P and Q1 is the quantity bought a P1

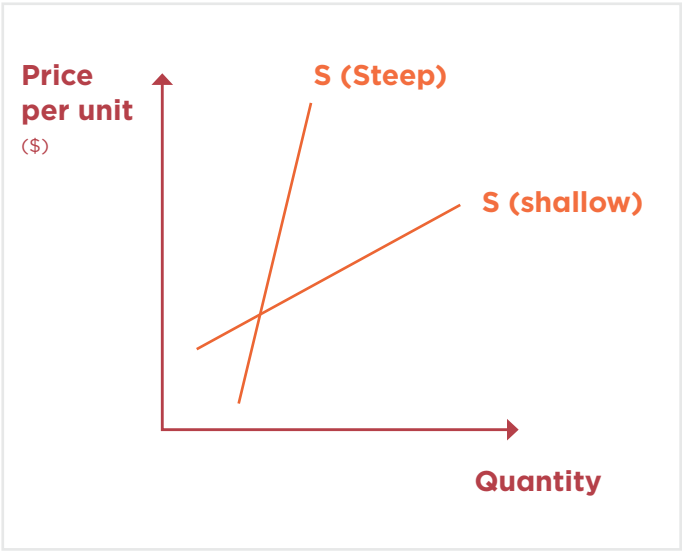
1. Use arrows to show the direction of change in price and quantity.
2. Why do you think ZERO pizzas are supplied below $10?
   Answer:

3. What does the positive slope of the supply line indicate about the impact of a price change on quantity supplied?
   Answer:

4. Use a specific good/service to explain why an increase in price will result in producers offering more of the good or service for sale.
   Answer:

Extension: Steep and Shallow Supply Curves

Market for _____



Student Hints

A product with *relatively fixed* resources (eg, concert tickets) will have a steep supply curve as the capacity of a stadium or concert venue is fixed so it is difficult for producers to increase quantity beyond the venue's capacity.

A product where is relatively cheap to increase production. eg, agricultural products will have a relatively flat supply curve as it can be reasonably easy to produce large quantities at a low cost.

Activity Six

Explain what would cause the gradient of a supply curve to be steep or shallow.

1. Steep Supply Curve

Occur when producers are relatively unresponsive to price changes

ie, large change in price › small change in quantity

a. Choose a specific product that you think will have a steep supply curve and explain why?

Answer:

2. Shallow Supply Curve

Occur when producers are relatively responsive to price changes

ie, small change in price › large change in quantity

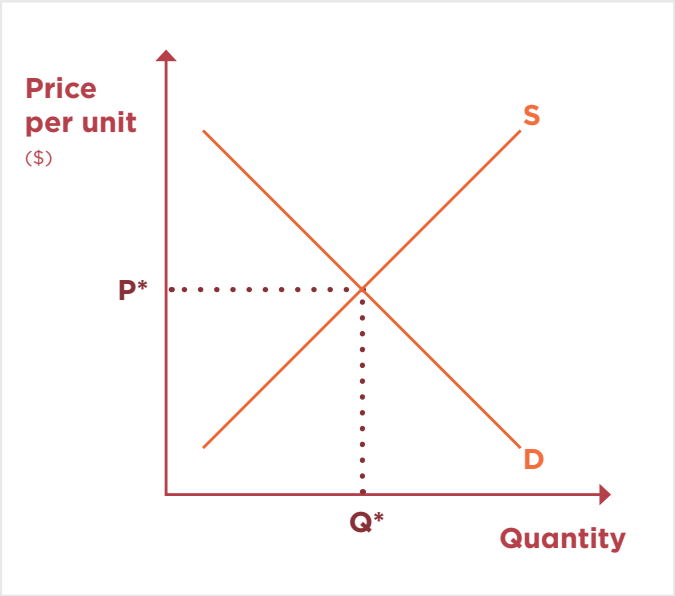
a. Choose a specific product that you think will have a shallow supply curve and explain why?

Answer:

Equilibrium on a Supply and Demand Graph

Market equilibrium is defined as the price at which quantity demanded, and quantity supplied are equal (ie, it is the point (on a graph) where the demand and supply curves intersect).

Graph 1: Market for _____
a good or service



Activity Seven

Answer the questions below which relate to Graph 1.

1. Where is the intersection of S + D on Graph 1?

a. Describe this intersection in terms of X and Y coordinates

Note: This is called the equilibrium.

Answer:

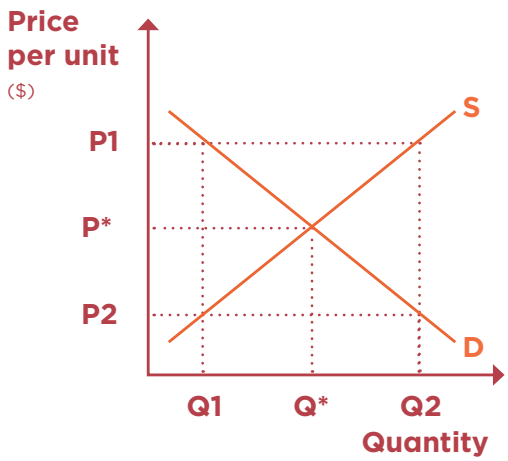
2. Explain what equilibrium means in terms of Quantity Supplied and Quantity Demanded — what does this means for the market's consumers and producers?

Answer:

Activity Eight

Answer these questions below which relate to market for jeans.

Market for Jeans



Student Hints

Market forces = in a free market, market forces move the price automatically to the equilibrium.

For example: An excess supply (= surplus) in a market (Qs>Qd) will result in producers lowering the price to sell their unsold stock, or

An excess demand (= shortage) in a market (Qd>Qs) will result in consumers, who can afford to, bidding up the price to guarantee their purchases.

Free market = an economic system in which the prices of goods and services are determined by supply (sellers) and demand (buyers). Such markets operate without the intervention of government or any other external authority.

1. If the price rises above P* (the equilibrium) (e.g., to P1), what does the gap between Q1 and Q2 on the represent?

Surplus or **Shortage** (Circle correct answer)

2. What effect will your answer to **1.** have on firms and what will happen to price?

Answer:

3. If the price falls below P* (the equilibrium) (e.g., to P2), what does the gap between **Q1** and **Q2** on the represent?

Surplus or **Shortage** (Circle correct answer)

4. What effect will your answer to 3. have on firms and what will happen to price?

Answer:

5. Look at your answers to Questions **2**. and **4.** and explain how **self-interest** will always move a market to the equilibrium.

Answer:

Student Hints

To be self-interested simply means that you seek your own personal gain.

eg, you go to school so you can get a better job someday and earn more money to buy the things you want.

Event Activities

Each of the EVENTS below will change the market conditions for the market specified.

- Use a Supply Demand (SD) whiteboard tool to show the impact of each of the following events on the SD graph for that market.
- Transfer the graph, you have created on the SD whiteboard, to the relevant Market Graph in your Student Workbook to show the effect of the event on that market, and then answer questions about the direct and flow-on effects of the event.
- Use your Market SD graph as a tool to justify your predictions (i.e., refer to changes shown on the SD graph, such as the changes of market Q and P, to support your predictions about direct +/or flow on effects).

Note: Identifying direct effects on quantity and price on a market will allow you to make logical predictions about the flow-on effects for that market and for the Aotearoa New Zealand economy. For example, flow on effects on employment, economic growth, well-being, equity, and inflation.

Events

The **market for Marmite** is affected by a decrease in the price of bread.	The **market for Warriors home game tickets** is affected by a run of losses in the weeks leading up to a home game (at Mt Smart Stadium).	The **market for pizzas** is affected by a decrease in the price of basil (a herb).	The **market for milk** is affected by legislation for "climate change", meaning that dairy farmers must reduce their methane emissions.

Event 1

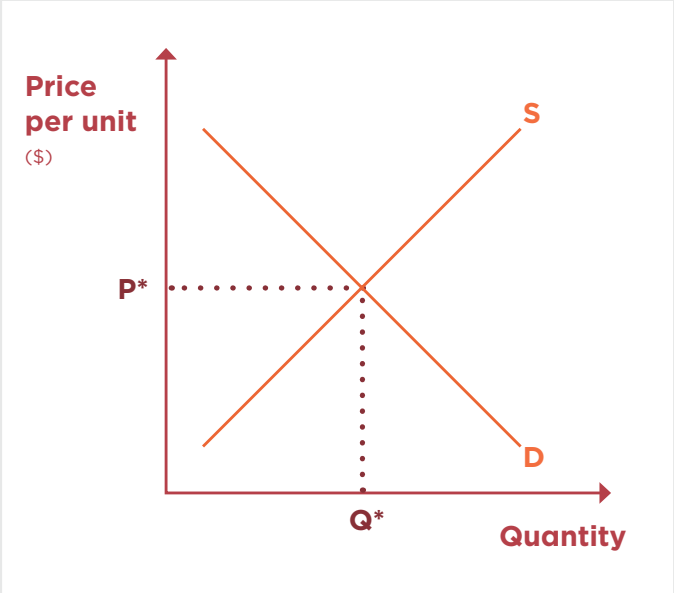
The **market for Marmite** is affected by a decrease in the price of bread.

› Use the SD whiteboard (which you have been provided with) to help you show the impact of Event 1 on the market for Marmite.

Activity

Answer the questions below which relate to *Graph 1* The Market for Marmite

Graph 1 - Market for Marmite



1. On Graph 1, which curve have you shifted because of Event 1 and why did you shift this curve?
Answer:

2. What is the direct effect of Event 1 on the Marmite market?
Answer:

3. What are the possible flow-on effects of Event 1 on the Marmite NZ economy" after market?
Answer:

Event 2

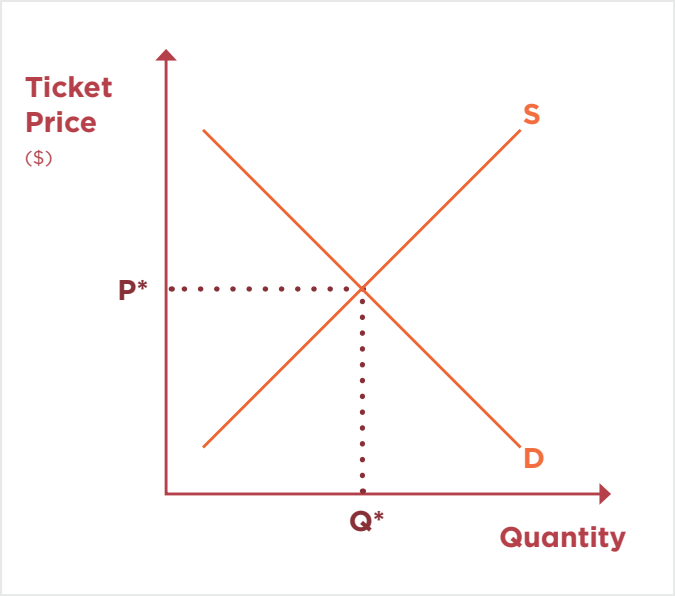
The **market for Warriors home game tickets** is affected by a run of losses in the weeks leading up to a home game (at Mt Smart Stadium).

› Use the SD whiteboard (you have been provided with) to help you show the impact of Event 2 on the market for Warriors home game tickets.

Activity

Answer the questions below which relate to *Graph 2* Market for Warriors Home Game Tickets.

Graph 2 - Market for Warriors Home Game Tickets



1. On Graph 2 which curve have you shifted because of Event 2 and why did you shift this curve?

Answer:

2. What is the direct effect of Event 2 on the Warriors home game tickets market?

Answer:

3. What are the possible flow-on effects of Event 2 on the Warriors home game tickets market and the NZ economy?

Answer:

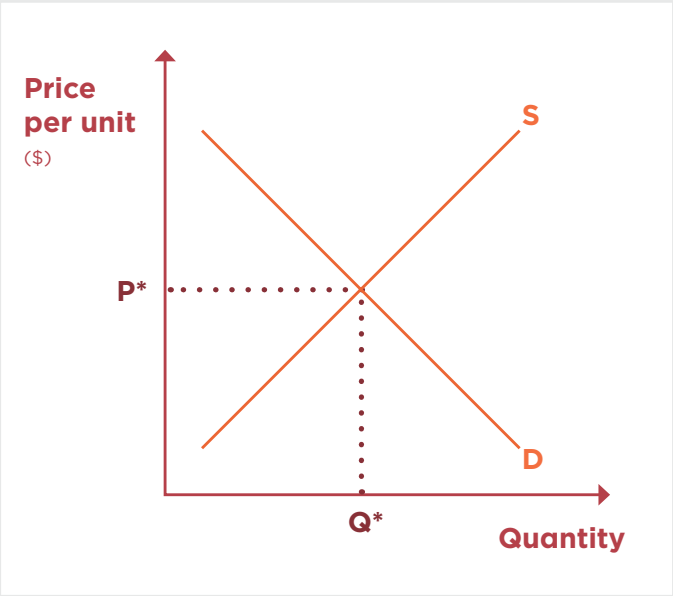
Event 3

- The **market for pizzas** is affected by a decrease in the price of basil (a herb).
- Note basil is an ingredient in the production of pizzas.
- Use the SD whiteboard (you have been provided with) to help you show the impact of Event 3 on the Market for Pizzas.

Activity

Answer the questions below which relate to Graph 3 Market for Pizzas

Graph 3: Market for Pizzas



1. On Graph 3, which curve have you shifted because of Event 3 and why did you shift this curve?
Answer:

2. What is the direct effect of Event 3 on the pizzas market?
Answer:

3. What are the possible flow-on effects of Event 3 on the pizzas market and the NZ economy?
Answer:

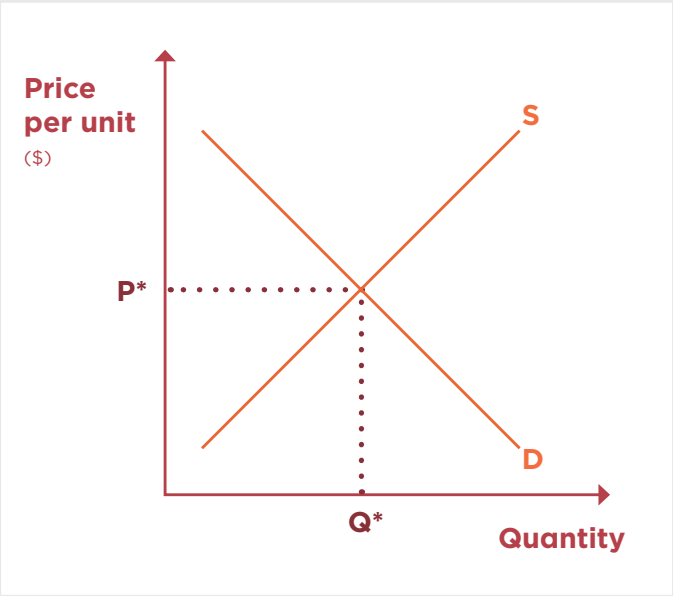
Event 4

- The **market for Milk** is affected by *the government trying to tackle "climate change" by passing legislation that means dairy farmers must reduce their methane emissions.*
- Use the SD whiteboard (you have been provided with) to help you show the impact of Event 4 on the Market for Milk.

Activity

Answer the questions below which relate to *Graph 4* Market for Milk

Graph 4: Market for Milk



1. On Graph 4 which curve have you shifted because of Event 4 and why did you shift this curve?

Answer:

2. What is the direct effect of Event 4 on the milk market?

Answer:

3. What are the possible flow-on effects of Event 4 on the milk market and the NZ economy?

Answer: