



Ports and the economy

Student activity sheets

Student activity sheet 1- How well do I know these terms?

Many of the words below will be used many times throughout this topic. If you don't know the meanings of the terms yet, you hopefully will by the end of this topic. Place each of the words in the column that best describes what you know about each one.

Words: economy, globalisation, imports, exports, port, Port of Melbourne, twenty-foot equivalent unit (TEU), forty-foot equivalent unit (FEU), container, cargo, stevedore, dock

Don't know the word at all	Have seen or heard the word but don't know the meaning	I think I know the meaning	I know the meaning

Student activity sheet 2 – Know, think and learn

Go to the website: www.portofmelbourne.com and browse through the information or watch the videos about the Port of Melbourne. Then fill in at least four different points for each of the columns in the table below.

What do I know about the Port of Melbourne?	What do I think I know about the Port of Melbourne?	What do I want to learn about the Port of Melbourne?

Student activity sheet 3 - Think, pair and share

1. Silently answer the following questions
 - What is the Port of Melbourne?
 - Why do we need the Port of Melbourne?
 - Have you ever bought anything that would have entered Australia through the Port of Melbourne?
 - Pretend that all Australian ports have to stop shipping for a year. Write a brief paragraph on what you think life would be like without such trade.
2. Discuss your answers with the person next to you.
3. Share your answers with the rest of your table.
4. Log onto the Port of Melbourne's website: www.portofmelbourne.com and use the information to alter your initial responses.



Student activity sheet 4 - Connecting the world

You may not realise it but many of the items in your classroom, in your home and even in your wardrobe are made in locations all around the world. Since over 97% of Australia's international trade is carried by ships, most of these items make it into your classroom, home and wardrobe because of the shipping paths of different shipping lines which call into ports across the world to help global trade.

The Port of Melbourne has remained Victoria's link to global shipping routes since the beginning of the city of Melbourne over 150 years ago. Around 3044 ship calls a year to Melbourne, providing services to ports in all major parts of the world.

Some of the shipping companies that call into the Port of Melbourne include:

- Maersk : www.maerskline.com/appmanager
- Hamburg Süd: www.hamburgsud.com/group/en/corporatehome
- Mediterranean Shipping Company (MSC): www.mscaustralia.com
- CMA-CGM: www.cma-cgm.com
- Nippon Yusen Kaisha (NYK): www2.nykline.com
- Cosco: www.cosco.com.au
- China Shipping: chinashippingaustralia.com
- Orient Overseas Container Line (OOCL):
www.oocl.com/eng/ourservices/eservices/trackandtrace/Pages/default.aspx
- ANL: www.anl.com.au

Your task:

Your task is to track the shipping routes of a major international shipping company to see which cities they connect Melbourne to. To do this you will need to:

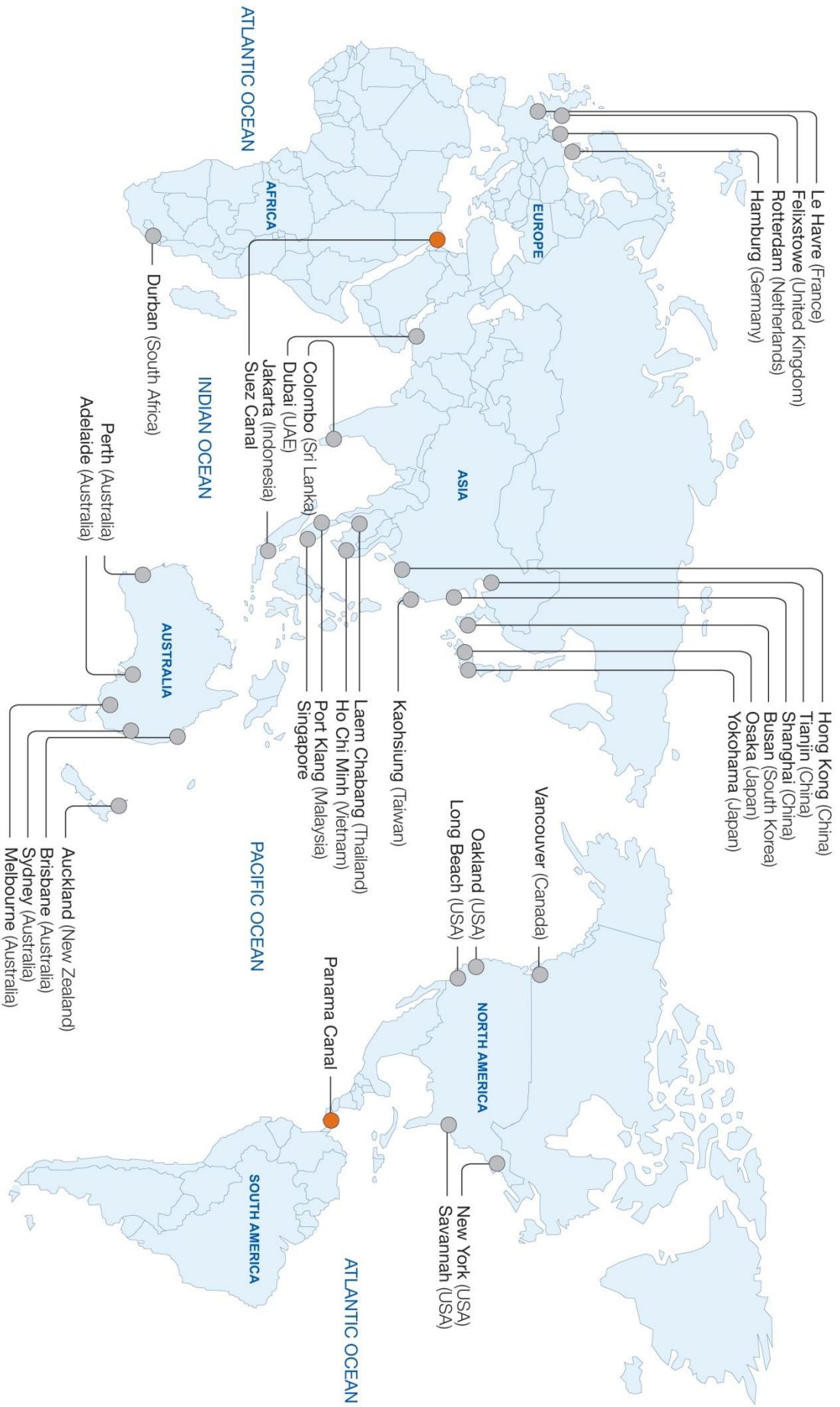
1. Choose one of the shipping companies above and log onto their website.
2. Navigate through the website to find the shipping lines 'Sailing Schedule' similar to the example below.
3. Use the sailing schedule to connect Melbourne with the surrounding countries on your map, similar to the example below. You may need to use an atlas or the internet to help you plot all of the locations.
4. Once you are finished, share your map with five other members of your class to get a better understanding of the shipping routes of some of the other shipping lines.

Example:

A vessel from Cosco Five Star Shipping has the following schedule. The locations in this schedule have been drawn into the world map.

Vessel	Voyage	Brisbane	Sydney	Melbourne	Singapore
Mol Diamond	016	18/10/2012	22/10/2012	25/10/2012	02/11/2012





Questions:

- 1. Using the information at the top of the worksheet, explain what percentage of international trade is carried via planes? Why do you think it is smaller than the trade carried via ships?

- 2. From your map, which regions appear to trade the most with the Port of Melbourne? Explain why you think this is. List some of the imports and exports that you think Melbourne would trade with this area.

- 3. Name a region that the Port of Melbourne doesn't trade with in your map. Explain why you think this is.

- 4. Explain in your own words how the Port of Melbourne helps global trade, and why you think this is important.



Student activity sheet 5 - Imports and exports

Imports:

An **import** is a good that is produced overseas and brought into Australia. You will find imported items in most shops. Imports give consumers a larger number of brands to choose from and encourage competition between brands resulting in lower prices for the consumer.

Each day in 2015-16 the Port of Melbourne received around:

- 33 tonnes of coffee
- 112 containers of televisions and household appliances
- 187 containers of furniture

Fun Fact:

If you wanted to drink the amount of coffee the Port of Melbourne imports each day, you would need to drink 5 cups of coffee a day for 1 808 years.

Imports are received from countries all around the world. Figure 1 shows some of the main locations that Port of Melbourne receives its imports from.

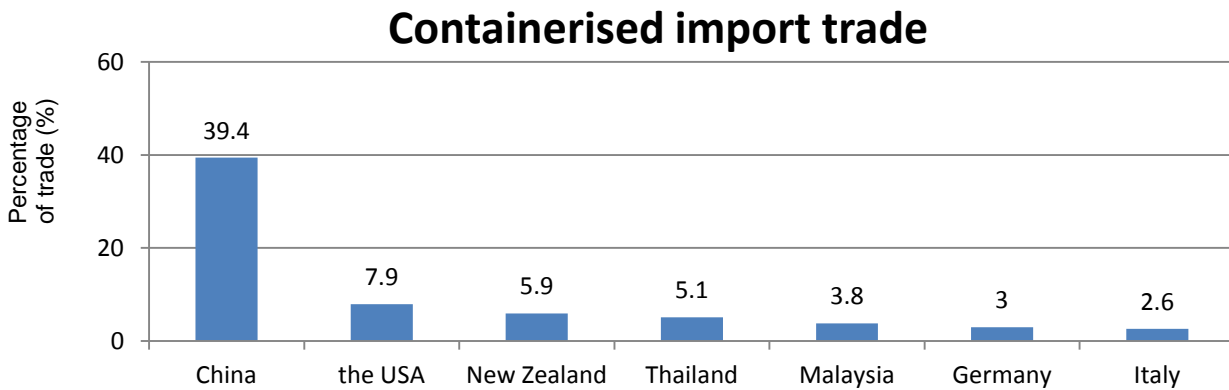


Figure 1: The percentage of containerised import trade received from the Port of Melbourne's main import markets in 2015-16.

1. Where does the Port of Melbourne receive the most imports from and what percentage does this make up of the total containerised trade?

2. List two items that may be imported from this area.

3. Calculate how many containers of flat screen televisions, fridges and irons are imported each week, and use this to explain why the prices of these electronic goods are continuously decreasing.

4. The natural disaster events that occurred in Japan in 2011 had a strong effect on car imports. Using the information above, explain why this would be the case.

Exports:

An **export** is an item which is made or grown in Australia and shipped to other countries. Exports are very important for the Australian economy as they lead to money being earned from overseas.

Each day in 2015-16 the Port of Melbourne exported around;

- 1 992 tonnes of dairy product
- 5 167 mass tonnes of cereal grain

Fun fact:

The weight of the dairy products exported *each day* by the Port of Melbourne is equivalent to the weight of 332 African elephants.

Containerised exports are sent to countries all around the world. Figure 2 shows some of the main locations that Port of Melbourne sends exports to.

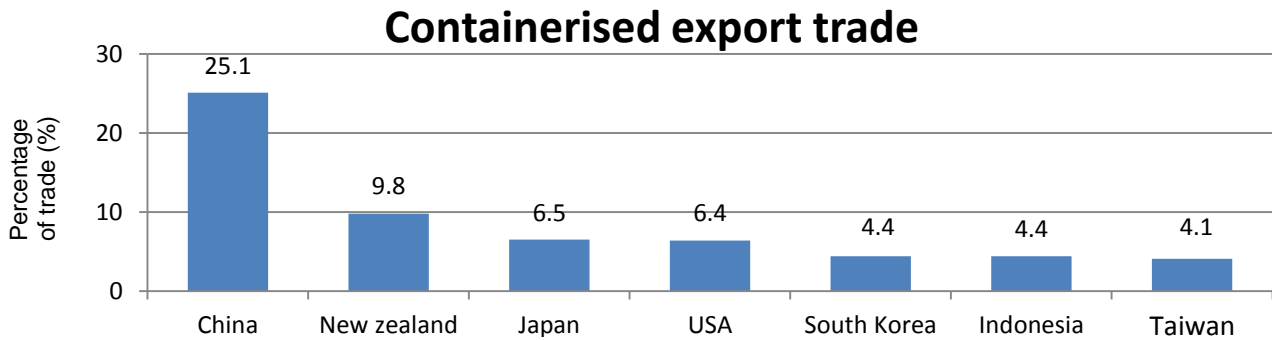


Figure 2: The percentage of containerised export trade sent to the Port of Melbourne's main export markets in 2015-16.

5. Where does the Port of Melbourne send most exports and what percentage does this make up of the total containerised trade?

6. The Port of Melbourne is open to ships 24 hours a day, 365 days a year. Why do you think the Port of Melbourne never purposely closes?

7. It has been suggested that strong rainfall has increased the level of exports moving through the Port of Melbourne. Explain why this might be the case.

8. Write in your own words why you think a strong import and export trade through the Port of Melbourne is important to you, and to the local and wider community.



Student activity sheet 6 - Comparing trade

Overview:

Port of Melbourne is Australasia's largest container and general cargo port, handling around 36% of the nation's container trade. Containers make up around 72% of the trading business through the Port of Melbourne.

Port of Melbourne exists to service the trading needs of millions of Australians, not only servicing Victoria's needs but also servicing the needs of Tasmania, as well as parts of South Australia and New South Wales. Many farmers and companies choose to export and import their products through the Port of Melbourne because it has more ships calling to it, more often, and it therefore allows them to import or export products at a faster rate.

1. Which areas outside of Victoria are serviced by the Port of Melbourne?

The volume of containers handled by a container port is generally measured in TEUs (twenty-foot equivalent units). This refers to a single container size which is twenty feet in length. Some containers come in FEUs (forty-foot equivalent units). This means that the container is twice as long as a TEU and therefore counts as two TEUs.

2. What is a TEU and what is it used to measure?

Table 1 below shows the amount of containers imported and exported in the top five ports in Australia.

Table 1: Australian trade statistics summary – Containerised trade in TEU (2015-16)

Port	Imports	Exports	Total
Melbourne	1,329,122	1,309,525	2,638,647
Sydney	1,172,942	1,150,871	2,323,813
Brisbane	580,371	566,803	1,147,174
Fremantle	367,982	344,941	712,923
Adelaide	193,743	197,157	390,900

3. Using the table above, calculate the number of twenty-foot containers that the Port of Melbourne handles in a month.

4. Why do you think a farmer from Mildura may choose to export their crops through the Port of Melbourne rather than the Port of Adelaide?

5. Which two ports have the least difference between the number of containers of imports and exports being sent through the port? Research the term 'balance of trade' and describe why the difference in imports and exports may be important.

The Port of Melbourne handles about the same amount of trade as Oakland in the United States and Osaka in Japan. Table 2 shows the container trade statistics for the top ten container ports around the world.

Table 2: Global trade statistics summary – Containerised trade in TEU in 2015

Port	World Ranking	Total
Shanghai, CHINA	1	36,500,000
Singapore, SINGAPORE	2	30,900,000
Shenzen, CHINA	3	24,210,000
Ningbo, CHINA	4	20,620,000
Hong Kong, CHINA	5	20,073,000
Busan, SOUTH KOREA	6	19,469,000
Guangzhou, CHINA	7	17,570,000
Qingdao, CHINA	8	17,340,000
Dubai, UAE	9	15,592,000
Tianjin, CHINA	10	14,111,000

Source: [CM 2016 - World Top Container Ports](#)

6. Give a possible reason for the large difference in containerised trade between the Port of Shanghai and the Port of Melbourne.

7. Do you believe that the Port of Melbourne will ever make it into the top 10 container ports in the world? Why/ Why not?

Student activity sheet 7 - Planning for economic growth

Trade through the Port of Melbourne is growing strongly. In the 2015-16 financial year, the port handled 2.6 million containers and this number is expected to double over the next 10 years. One of the reasons for this growth is the growing number of residents living in Victoria. Melbourne is Australia's fastest growing capital city according to the Australian Bureau of Statistics. In 2014-15, Melbourne grew by an average of 1760 people per week.

To ensure that the Port of Melbourne can continue to provide for the growing trade demands of a growing city, the Port of Melbourne is increasing its handling abilities in a project called the Port Capacity Project.

1. Explain in your own words, why the Port Capacity Project is necessary.

The Port Capacity Project aims to increase the amount of trade the port can handle each year, but it needs to ensure that it takes into account different community issues such as traffic and transport, environmental management, and community access zones. Your task is to look into how Port of Melbourne Corporation is addressing these issues.

2. Go to: www.portofmelbourne.com/ and follow the links to the Port Capacity section.

Area	Present	Future	Benefits	Questions that I have
Webb Dock				
Parks and buffers				
Traffic and transport				
Environment (including noise, lighting and visual displays)				

3. Write a summary paragraph about your views on the Port Capacity Project. Include the following information;
- How beneficial you think it will be for the Victorian economy?
 - How you think it will affect your lifestyle, the local community and the environment?
 - Are there any questions that you have about the project that are unanswered?

4. Share your summary paragraph with two other students, and get them to write what they think about your summary, using the categories 'plus', 'minus' and 'interesting' in the tables below.

Editing process 1: Name of student editing the summary: _____

Plus: <i>What parts of the summary are really good?</i>
Minus: <i>What parts of the summary could do with improvements?</i>
Interesting: <i>What parts of the summary are interesting?</i>

Editing Process 2: Name of student editing the summary: _____

Plus: <i>What parts of the summary are really good?</i>
Minus: <i>What parts of the summary could do with improvements?</i>
Interesting: <i>What parts of the summary are interesting?</i>

5. Re-write your summary using some of the advice above.

Tell us what you think!

If you are impressed with your Port Capacity Project summary or if you have outstanding questions, Port of Melbourne would love to hear them.

Send your summary or enquiry to education@portofmelbourne.com



Student activity sheet 8 - Providing employment

The port makes a major contribution to the economies of south-eastern Australia, generating employment for tens of thousands of people across a range of industries.

1. What types of jobs do you think the Port of Melbourne generates?

2. Go to www.portofmelbourne.com and visit the careers section to find four port related careers that you find the most interesting.
3. Use the Supply Chain Careers Map found at the link below, to fill in the details of the table below;
https://www.vu.edu.au/sites/default/files/TransportLogisticsandSupplyChainCareerMap_001.pdf

Career	Description	Study or work experience required	Why I find it interesting



Student activity sheet 9 – Port scenarios

You are to imagine that you are the owner of a container stevedore operator working within the Port of Melbourne. You are responsible for handling all of the containerised imports and exports throughout the Port of Melbourne.

You need to explain what economic and social influences the following scenarios would have on both your company and the local and wider community.

1. A three year long drought occurred in Victoria.

Your company: _____

The community: _____

2. A major phone manufacturer has gone bankrupt.

Your company: _____

The community: _____

3. A brand new small and affordable teleportation device has been invented in Asia.

Your company: _____

The community: _____

4. A particular vessel is three hours late to arrive at the Port of Melbourne.

Your company: _____

The community: _____

5. Extreme weather has prohibited all vessels from arriving at your dock for two days.

Your company: _____

The community: _____



Student activity sheet 10 – Self evaluation

What I learnt:

How does the Port of Melbourne affect my way of living?

How does the Port of Melbourne affect the Victorian and Australian economies?

Two of the most interesting facts that I learnt during this topic are:

How I learnt:

What skills did I use to complete this unit of work?

What resources did I use to complete this unit of work?

How I worked with others:

How well did I contribute to class learning by communicating my ideas to others?

What I thought about the topic:

The part I enjoyed most about this topic was:

Something that I would have preferred to have done differently in this topic is: