

SP: SOCIAL SCIENCE
GRADE 8: TERM 4
GEOGRAPHY: LEARNER BOOKLET

Learner Name: _____ Grade: 8 _____

Transport and trade
Trade and transport around the world



CONCEPT	DEFINITION
Trade	Exchange of goods and services
Exports	Products manufactured in one country and sold in another country
Imports	Products brought into the country from another country
Surplus	An amount left over or more than you need
Raw materials	Natural products such as minerals or unprocessed agricultural products
Manufactured goods	Products that has been processed, often in a factory
Spoiling	Going bad or rotting
Labour	Work
Mode	A way in which something is done
Modes of transport	The way in which things are transported
Container ships	Ships that transport large metal containers
Shipping containers	Large metal boxes of standard size which can be loaded on specially designed trucks or ships
Infrastructure	Buildings, ports, roads, railway lines and airports buildings
Networks	Infrastructure system that connect places
Oil refineries	Large factories where crude oil is processed into various fuels
Commodity	Something that is bought and sold
Consumer	Someone who buys goods and services
Markets	Opportunities for things to be sold
Freight	Goods that are transported
Longevity	A length of time a product can stay fresh
Seasonal	Changing with the seasons
Port	A town or city with a harbour that load and unload freight
Harbour	The physical structures where ships dock and load or offload cargo
Terminal	Part of the harbour that specialises in one main function
Bulk export	Heavy resources
Break-bulk freight	Freight which needs to be transferred from one form of transport to another
Dual carriage freeways	Freeways with many lanes and a strong boundary in between lanes carrying traffic into two different directions
Commuters:	People who travel between work and home regularly, usually daily
Transport network	Various transport routes that join different places together
Public transport	Transport used by public
Transit	Carrying of people and goods from place to place
Articulated buses	Long buses with two sections

Traffic congestion	Traffic jam
Private transport	Transport owned and used by individuals
Synchronised traffic lights	A different number of traffic lights along a road that are timed to change to keep the traffic moving
Rush hour	The times when most people travel to and from work and school
Subsidise	Help pay for something

1. Reasons for trade

People get things they need by trading. Today most trade involves money and transport. There are different kinds of **trade**:

- Trade between individuals – the normal buying and selling that most people do every day.
- Regional trade – trade between businesses in different regions of a country.
- International trade – trade between countries. This kind of trade involves the movement of goods over a long distance. Transport plays a big part in international trade.



2. Links between trade and transport

We use different kinds of transport to move goods or people between places. Without transport, most kinds of trade would be almost impossible. Improved transport methods and systems such as refrigerated ships, oil pipelines and container transport have increased the volume of world trade.



A refrigerator truck

- In the past farms needed to be close to cities for longer.
- Today, refrigerated transport keeps food fresh.
- Farmers can send food all over the world without it spoiling.



A passenger train

- Transport in towns enables workers to travel to work.
- People all over the world use buses, trains, taxis and cars to get to work.
- Workers trade their labour for money, which they use to buy the things they need.



- The invention of large container ships means that the cost of transporting goods between countries has decreased.
- Transport improvements, such as high speed trains, also help to move goods and people more quickly between places.

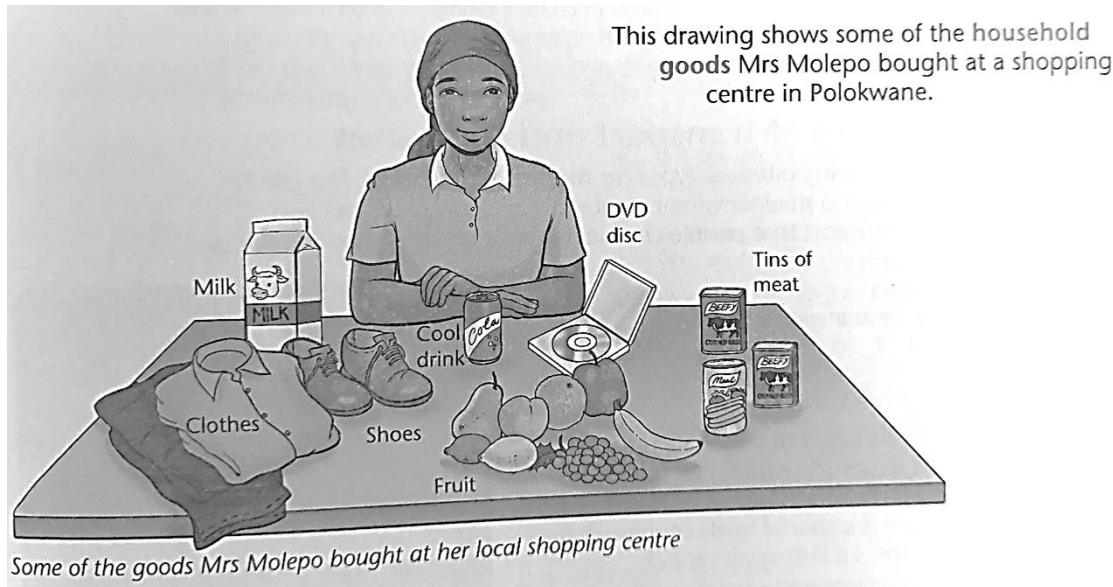
Activity 1:

Date:

1. Why do people in urban areas need to use transport more than people in rural areas?
2. Suggest ways transport has made it easier for people to trade.
3. Explain how trade and transport make it possible for people in Europe to eat fruit grown in South Africa or meat from New Zealand throughout the year.

Activity 2

Study the picture below and answer the following questions:

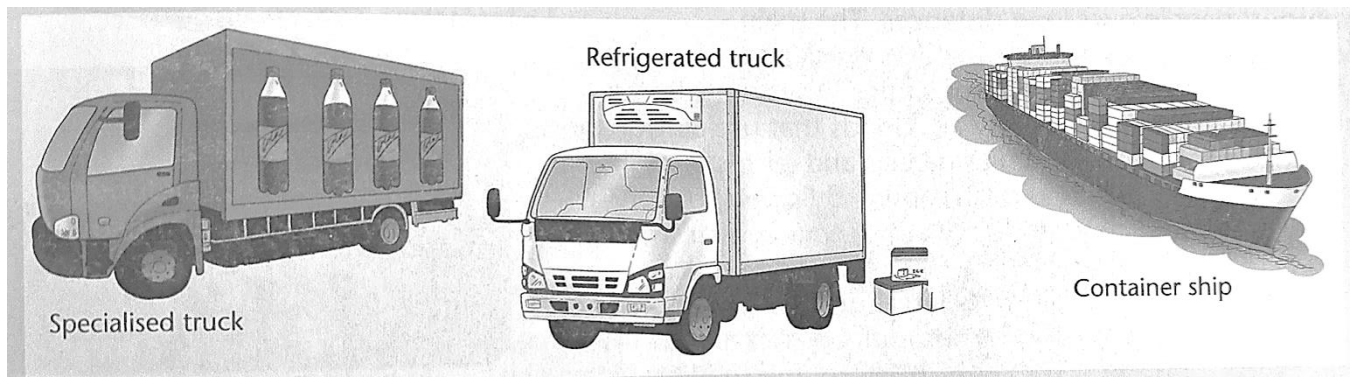


1. Name the goods that Mrs Molepo bought that may have come from overseas.
2. Name the kinds of transport that could have been used to transport the goods that came from overseas countries.
3. Match three goods that she bought with three kinds of transport in the pictures below.
4. Explain how transport makes it possible for people all over the world to buy the same kind of goods.
5. Explain how the price of goods could be affected by:
 - a. The distance the goods are transported.
 - b. The kind of transport used to transport goods.

3. Different modes of transport and their uses

There are many different types (or **modes**) of transport – sea, air, road, rail and pipeline. The kind of transport that people choose depends on the following factors:

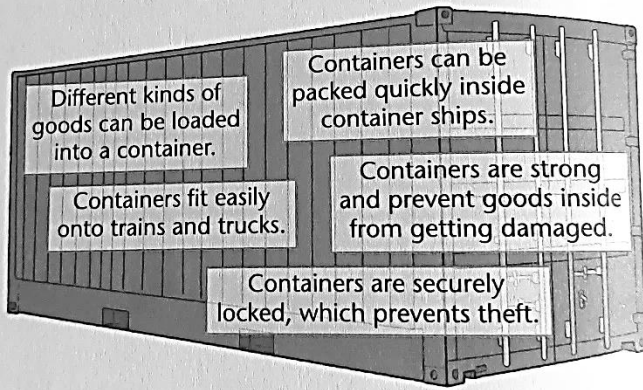
- Distance of the journey
- Cost of the transport
- Types of goods to be transported



- Quantity of goods



Oil is transported across the world's oceans in specially built oil tankers. Some oil tankers are 400 m long.



Air transport is used to transport emergency supplies to disaster areas.

Road transport

Many different kinds of transport use roads. Some transport is used to move people and some is used to move goods. There are special kinds of road transport for specific kinds of goods.



Cement trucks transport concrete to buildings sites.



Petrol tankers transport petrol from oil refineries to petrol stations.



Refrigerated trucks transport frozen or chilled foods.



Bakkies carry a variety of goods and workers.



Some taxis carry goods, but taxis are usually used to carry people.



Motor bikes carry small goods such as medicines and important documents.

Different kinds of road transport

Activity 3:

Date:

1. Name one type of specialized transport used on sea and one used on land.
2. Name the goods that each of these modes of transport is specialized to transport.
3. Explain why the following modes of transport are unlikely to be used to transport the goods.
 - a. A train to transport flowers.
 - b. An aero plane to transport 300 tons of coal.
 - c. A refrigerator truck to transport live chickens.

4. Major roads, railways, airports and harbours in South Africa

- Three factors that influence transportation is accessibility, affordability and availability.
- These networks of a country both affect its economic development.
- Trade and industry can determine what transport networks are built.

Specialised ships

- Ships can carry larger loads of goods over longer distances than aeroplanes.
- Containerisation have made it cheaper to trade globally.
- Goods are packed into metal containers at the docks.
- Large cranes can load and unload containers .
- Containers are attached to the deck of the ship as well as placed in the hold,
 - allowing more goods to be transported in one trip, also lowering costs
- Bargers carry heavy goods within the harbour.
- Tankers carry heavy goods such as oil products in bulk.
- Bulk carriers are single- decked ships.
- Passenger liners carry passengers, crew and passengers baggage.
- Tugs assist large ships to navigate the harbour by pushing and pulling them.





Cruise ships





Links with other transport systems- such as road, rail, pipelines

Pipelines

- There is a gaspipeline from Richard Bay to Gauteng.
- Pipelines transport liquid fuels and gas from refineries at Durban.
- There shorter pipelines that transport oil from tankers to loading and storage facilities in the oil terminal.
- Other pipelines transport liquid products to Southern African Countries.



Rail links

- Major advantage of containerisation is that cargo can be transferred from one mode of transport to another very easily and quickly from ships, Containers can be loaded directly onto trains or trucks for delivery else where.
- A rail link with Mpumalanga coalfields was specially built to handle the coal exports.
- Other rail links connect Richards Bay with Durban and Swaziland.
- Most cargo is transported by road or railway between the inner cities.



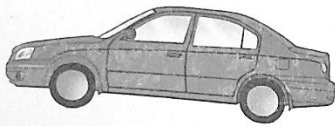
Activity 4:

1. Give reasons why so many of the imported goods are transported in containers.
2. What are the advantages of being able to load containers directly from railway trucks onto container ships?
3. Why is iron ore transported by rail and ship?
4. What kind of exported goods are likely to be shipped?
5. Choose a product that uses one of the specialised ships that dock at Cape Town harbour. Describe the way this specialised type of ships operates.

South Africa's transport network is influenced by the following factors:

- Population distribution: Transport networks are denser where there is higher population density.
- In South Africa most manufacturing companies is based in Gauteng while mining areas are in the northern part of a country.
- South Africa has a few major urban settlements that make up most of the urban population and economic production.
- Physical factors: Some areas are too mountainous for railways or major roads. Large sections of the coastline both on the west and east coasts are unsuitable for deep harbours.

5. Advantages and disadvantages of road and rail transport

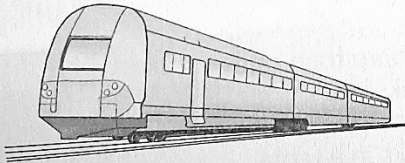


Advantages of road transport

- Roads link places directly, so road trucks can go straight to users.
- There are more roads than railways.
- Road transport is cheaper and quicker over short distances.
- Delivery by road is more immediate; trains have to follow a timetable.

Disadvantages of road transport

- Traffic congestion is caused by too many vehicles.
- Exhaust fumes cause pollution.
- There are more road accidents than rail accidents.
- Trucks cannot carry as many goods as a train.



Advantages of rail transport

- Railways can transport many goods in one trip.
- A train can carry large bulky cargoes such as coal and iron ore more easily and cheaply than roads.
- There is no congestion with trains.
- Most trains run on electricity which causes less pollution.

Disadvantages of rail transport

- Trains cannot travel up steep slopes.
- They cannot go to many different places on one journey.
- It may take time to load all the trucks on a train.
- Trains do not always go straight to and from users, so goods may need to be carried by other transport as well.



- Metrorail is an operator of commuter rail services in the major urban areas of South Africa.
- It is a division of the Passenger Rail Agency of South Africa (PRASA).
- Metrorail is a state-owned_ which is responsible for most passenger rail services in South Africa.
- The Metrorail system consists of 471 stations, 2,228 kilometres (1,384 mi) of track, and carries an average of 1.7 million passengers per weekday.
- In the early 1990s Metrorail was placed under Spoornet, another business unit of Transnet but on 1 January 1997, Metrorail became an independent business within Transnet and the Metrorail regions were formed.
- In recent years, much concern has been raised about the safety of passengers on Metrorail trains, both due to crime and accidents.
- Serious incidents include murders and assaults on-board trains; several level crossing accidents, and a crash in Soweto.
- Metrorail services have also suffered from instances of train-burning by disgruntled passengers.
- Cable theft disrupts services.
- In 2006 the Faure level crossing accident killed 19 people.

Activity 5:

Date:

Study the case study below and answer the following questions.



Why a rapid rail system?

Gauteng the country's economic hub, is currently experiencing traffic congestion on its major routes,

especially between Tswane and Johannesburg. The current transport facilities and services between these two cities are mainly road based. The land required for a rapid rail system is far less than that of a road system. Apart from easing the severe traffic congestion, economic development will be stimulated by the rapid rail system and it will have distinct environmental advantages over the other forms of transport.

The planned Gautrain Rapid rail link is aimed of providing an alternative public transport mode to car users and hereby attracting private car users to the train. This service will help alleviate the congestion on the roads between Johannesburg and Tshwane.

The N1 freeway currently carries some of the highest traffic volumes in South Africa, with more than 157 000 vehicles travelling on it per day, and traffic growth rate of 71% per year. It is approximately one fifth of Tshwane.

- 2.1 List four reasons for the developing a rapid rail system.
- 2.2 What environmental advantages does the rapid rail system has over road-based transport?
- 2.3 Explain how the rapid rail system stimulate or help economic development?
- 2.4 Give reasons why people changing road to rapid rail transport.
- 2.5 Write a e-mail letter of about 6-10 lines in which you explain/state your opinion whether the Gautrain is a good or bad idea.

Activity 6:

Date:

1. What THREE factors affect transportation?
2. Which sector determines how transport networks are built?
3. List and explain the factors that influence South Africa's transport network.
4. Draw a table and write out TWO advantages and disadvantages of road and rail transport.

5. Private modes of transport

5.1 Mini-bus taxis



- The multi-billion rand minibus taxi industry carries over 60% of South Africa's commuters.
- Generally speaking, these commuters are all of the lower economic class.
- There are about 150 000 mini-bus taxis in South Africa.
- At least 185 000 people are employed in the mini-bus taxi industry.
- Mini-bus taxis are owned by individual.
- Most mini-bus taxi drivers work for a wage salary.
- Only 2% on mini-bus drivers are women.
- Minibus taxi drivers are well known for their disregard for the road rules and for dangerously overloading their vehicles with passengers.

What people like about mini-bus taxis:

- Mini-bus taxis go to places where other transport means do not.
- They stop anywhere to pick up people.
- They operate weekends and after hours.
- They are quicker than any other form of road transport.

What people don't like about mini-bus taxis:

- Mini-bus taxi fares are more expensive than any other modes of road transport.
- Some min-bus taxis are old and not safe.
- Some drivers are careless and cause accidents.
- Passengers have to wait for mini-bus taxis to fill up before they leave.
- They are often overcrowded.

5.2 Bicycles



- No mode of transport that is more efficient and practical than the bicycle for most trip purposes.
- Bicycles use zero fossil fuels to be propelled.
- The human energy used to propel bicycles is renewable and largely non-polluting.

Reasons why bicycles are the best modes of transport

- Bicycles can be ridden by people of nearly all ages. I have personally seen bike riders from toddlers to age 90+.
- Bicycles provide humans with low impact exercise, health, and fitness benefits without adversely impacting the Earth.
- Bicycles ride quietly, which limits noise pollution and disturbances to nature.
- Bicycles encourage human interaction, communication, and connectivity.

Activity 7:

Date:

1. What are mini-bus drivers known for?
2. Who are mainly owners of mini-bus taxis?
3. Do you think it is a male dominated industry? Why?
4. How are bicycles good for the planet?
5. Give FOUR reasons why bicycles are the best modes of transport?

Export and imports of the different harbours

Durban harbour

Durban is the busiest port in South Africa for non-bulk products.

Second busiest port in the southern hemisphere.

Main imports are- oil, coal, tobacco products, motor vehicles and machinery.

Main exports are- iron ore, iron and steel, wood pulp, newsprint and paper, sugar.

Famous from the passenger ships, mainly from England.

Richards Bay harbour

Richards Bay is South Africa's bulk port and one of the largest and most efficient port of its type in the world.

The port is built to handle South Africa's increasing coal export trade and handles about 70 million tonnes of coal per year.

Other products export include fertiliser, chemicals, chrome, sand, manganese ore and wood.

Imports include aluminium ore for the big aluminium plant at Richards Bay and Chemicals.

Most of the products are bulk cargoes.

Port Elizabeth harbour

From 1820's ships stopped at Port Elizabeth to collect fresh water on their way to and from the east. During 1820 Europe established farms near Port Elizabeth

The harbour is situated in Algoa Bay on South Africa's south east coast.

Main export are- manganese ore, cars, wool, fruit and grain.

Main imports- car parts, petroleum products, clothes, toys and household items- Clothes and toys are imported from China and India.

Cape Town harbour:

Cape Town is also a busy container port, second in South Africa only to Durban, and handles the largest amount of fresh fruit.

Fishing has a significant place in the economic activity of the port, affecting the ship repair industry in particular, with large Asian fishing fleets using Cape Town as a transshipment logistics and repair

base for much of the year. The emerging oil industry in West Africa has also become a significant factor for the port's repair and maintenance facilities.

Cape Town was established by the Dutch on 6 April 1652 when Jan van Riebeeck arrived in Table Bay to establish a victualing station for ships of the Dutch East India Company (VOC) on their long voyages to and from the Dutch East Indies. The port progressed steadily over the centuries and consists today of two 'docks' - the larger outer Ben Schoeman Dock in which lies the container terminal, and the older inner Duncan Dock containing the multi-purpose and fruit terminals as well as a dry dock, repair quay and tanker basin. Cape Town also boasts an extensive yachting marina. Cape Town, as the 'Tavern of the Seas' caters for general cargo on a common user basis, and is handling an increasing number of containers and in addition has become an important repair facility, especially for the west coast oil and diamond mining industries

Activity 7:

SHIP REPAIR FACILITIES IN SOUTH AFRICAN PORTS



1.. Study the map of the south African ports (Source B) and answer the following questions.

1.1. Explain the following type of ports

- a) dry docks
- b) floating docks
- c) syncrolifts
- d) Slipways
- e) Quayside

1.2 Which port/ports in South Africa are responsible for exporting/importing the following product or are responsible for certain activities.

- a) The deepest container terminal.
- b) The world's largest bulk coal and aluminium terminal.
- c) Export of sugar and grain.
- d) Import of oil.
- e) Motor vehicles export and import
- f) Export of fresh fruit and fish
- g) Export of Iron ore
- h) Import of clothes and toys
- i) import of chemicals
- j) Export of wool

2. Study The case study of Cape town harbour as well as the notes and answer the following questions.

2.1 Explain why the Cape Town harbour plays an important role in the import and export trade of South Africa?

2.2 Why is it necessary to expand South Africa's ports?

2.3 Name any four food products is exported from the Cape Town harbour?

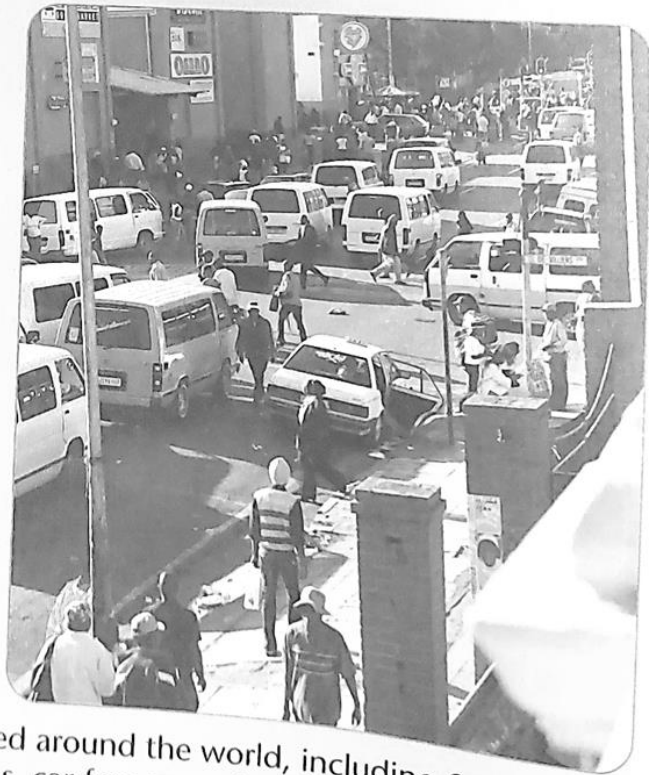
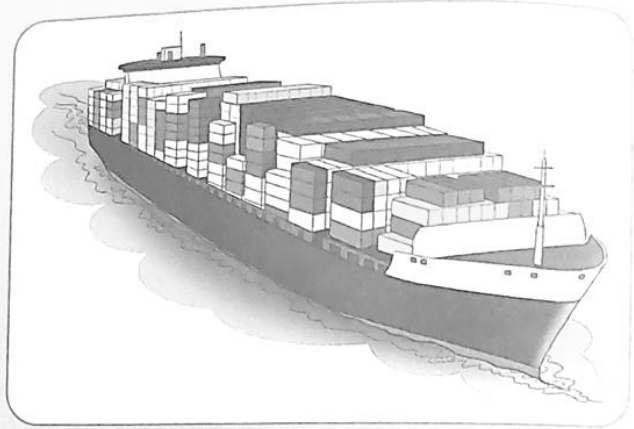
2.4 Name any bulk export products/cargoes from The Cape Town harbour?

2.5 Why is the cruise ships important in Cape Town?

2.6 State some similarities and difference between Cape Town harbours and the other harbours in South Africa.

Summary

- People trade to get the things they need.
- Different kinds of transport move goods around a country and the world.
- The different modes of transport are sea, air, road, rail and pipelines.
- South Africa has a good system of road, rail, sea and air links that connect the main trading centres to each other.
- Durban is South Africa's busiest port.
- Durban is well situated to import and export goods to and from Gauteng, which is the economic centre of the country.
- Durban's main import and export products are motor vehicles, containers, oil, sugar and steel.
- Special areas called terminals deal with certain kinds of cargo, for example, oil, containers and sugar.
- Specialised ships are designed to carry certain cargo more efficiently. Examples of specialised ships are oil tankers and container ships.
- Rail transport is good for moving large, heavy goods over long distances.
- Road transport is more efficient for moving smaller loads to many different places over shorter distances.
- Public transport is transport that the general public uses but does not own.
- Public transport is usually run and owned by the government, e.g. rapid transit systems, bus services and underground rail transport in cities.
- Private transport owned by individuals includes cars, bicycles and taxis.
- Transport is a big daily cost for many people in South Africa.
- People may waste a lot of time each day using transport to get to work or school.
- Large numbers of vehicles using the road cause congestion, pollution and increase the risk of traffic accidents.
- Some local solutions to urban transport issues include rapid transit systems such as Gautrain, Rea Vaya and the Bus Rapid Transit in Cape Town.
- Public transport strategies that have been tried around the world, including South Africa, are bus and cycle lanes, park and ride systems, car-free zones in urban areas and subsidised public transport.



Activity 8:**Date:**

1. Why do people trade?
2. List the different modes of transport.
3. Name SA's busiest port.
4. Explain the purpose of road and rail transport.
5. What are the differences between private and public transport?
6. What happens when there are large numbers of vehicles on the road?
7. List some of the solutions to urban transport issues.
8. What are some of the public transport strategies that have been tested?

Activity 9:**Date:**

Read through the following and fill in the missing words:

There are too many cars and trucks on the roads. That causes 9.1 _____ which makes road transport slower than 9.2 _____. But there are more roads than 9.3 _____ and the roads take the goods directly to its users. There are more 9.4 _____ accidents than railway accidents.

Exhaust fumes cause 9.5 _____. Aeroplanes cause 9.6 _____ with the huge engines.

The different types of transport, are sea, air, road, rail and 9.7 _____. Transport is important to all trade. Trading goods entails import and 9.8 _____.

Examples of specialised trucks are cement trucks and 9.9 _____ trucks. Examples of specialised ships are oil tankers and 9.10 _____.

Rail transport is excellent to move large goods over 9.11 _____ distances. Electrical trains reduce 9.12 _____.

The high speed train namely the 9.13 _____ prevent a lot of air pollution, South Africa does not have the 9.14 _____ to build more high speed trains over 9.15 _____ distances.

If goods are likely to spoil or rot in a short time, we call it 9.16 _____. These products are transported by 9.17 _____.

Pipelines are found on the land but can also be found under the 9.18 _____ or 9.19 _____. Refineries are factories that turn oil into petrol or 9.20 _____. Pipelines usually connect harbours to 9.21 _____ that are situated inland.