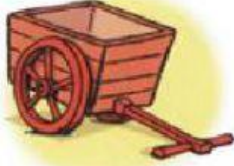


(E32204) Midterm Examination

camel cart ship sled spaceship trailer



1 cart



2 _____



3 _____



4 _____



5 _____



6 _____

paddle compass oar propeller sail steam engine



1 _____



2 _____



3 _____



4 _____



5 _____

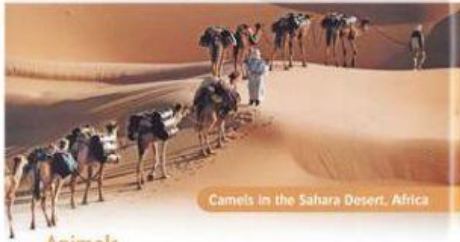


6 _____

(E32204) Midterm Examination

1 Then and Now

Until about 7,000 years ago, people had to walk everywhere. Then they started to use animals for transportation. Later, people invented vehicles.



Camels in the Sahara Desert, Africa

Animals

People used horses and donkeys for transportation in lots of places. People also used camels in Africa, elephants in Asia, and llamas in South America. People still use animals for transportation today.

The First Vehicles

People made rafts from tree trunks. They floated on their rafts along rivers and on lakes. It was easier than swimming, and they didn't get wet. These were the first vehicles.



sled

Sleds were like rafts, but they were used on land. They were useful because it's easier to pull heavy things than to lift them.

The Wheel

About 5,500 years ago, people added wheels to sleds. Farmers and traders made carts with two or four wooden wheels. Cows and horses pulled the carts. Carts with wheels were much faster than sleds.



cart

The wheel is one of the most important inventions in history, and today you can see wheels everywhere. Cars, buses, trucks, trains, bicycles, motorcycles, and planes all have wheels. Wheels are important in engines, too.



A truck with a lot of trailers is called a road train. The longest road train was Australian. It had 117 trailers with 2,126 wheels!



trailer

A Road Train

International Transportation

Until about 10,000 years ago, people lived in small family groups and they didn't travel a lot. Then, as villages and towns became bigger, people had to travel to find food. People used animals to carry goods like meat and fur.



Ships Trading in the Middle East

Then about 6,000 years ago, people started to travel long distances to trade metals, salt, and spices. Ships began trading in the Middle East 4,500 years ago. People used ships because animals could not travel over water. Soon, people were trading all around Europe and Asia.



Traders took Chinese silk to Europe along the Silk Road 2,500 years ago. They used horses and camels to carry the silk more than 3,000 kilometers.



A Modern Freighter

Transportation Today

Today, every country in the world uses water, air, and land transportation to trade food, fuel, clothes, and other goods like cars and televisions.

Tourists started to go on vacation by train and boat 200 years ago. From about 1960, with the invention of large passenger planes, tourism became very popular. Today, about 900 million tourists travel to another country every year.

In 2001, an American called Dennis Tito was the first space tourist. He flew in a Russian spaceship to the International Space Station. Will tourists travel to the moon one day?

→ Go to pages 36–37 for activities.

- How did people travel before there were vehicles?
 - used animals
 - took a bus
 - drove a car
 - took a plane
- Why were sleds useful?
 - lift heavy thing
 - transport people
 - float on the river
 - easier to pull heavy things
- What was one of the most important inventions in history?
 - sled
 - raft
 - wheels
 - engines
- Why did people start to travel 10,000 years ago?
 - hunt the animals
 - find gold
 - find food
 - find new home
- How long is the Silk Road?
 - 2500, KM.
 - 4,500 KM.
 - 6,000 KM.
 - 3,000 KM.

(E32204) Midterm Examination

2 Boats and Ships

We use boats and ships to transport passengers and freight. Boats and ships can travel along rivers and across lakes and oceans. What boats or ships have you traveled on?



paddle

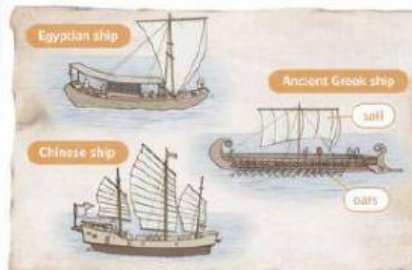
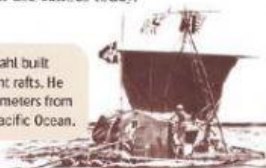
A Canoe Called a Kayak

The First Boats

The first vehicles that people used on water were rafts made from tree trunks. Then more than 5,000 years ago, people made canoes. They used paddles to power their canoes. People still use canoes today.



In 1947, Thor Heyerdahl built a raft similar to the ancient rafts. He sailed *Kon-Tiki* 8,000 kilometers from Peru to an island in the Pacific Ocean.



Egyptian ship

Ancient Greek ship

Chinese ship

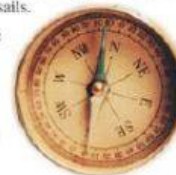
sail

oars

The First Ships

Egyptian traders sailed the first ships about 4,500 years ago on the River Nile. Later, the Ancient Greeks sailed larger ships around the Mediterranean Sea. Their ships were fast because they used sails, and at the same time men rowed with oars. Traders sailed between the Middle East and India in small ships with triangular sails. Chinese, Korean, and Japanese traders had large ships with square sails.

Chinese people invented the compass about 2,000 years ago. Compasses point to north, and they help people to sail in the right direction across oceans. They are still important for sailors today.



Sailing Around the World

The Vikings lived in Denmark, Norway, and Sweden about 1,000 years ago. They sailed around Europe, and they crossed the Atlantic Ocean to Canada. At the same time, hundreds of ships were trading between Japan, Korea, China, and countries in Southeast Asia.

From about 1500, European ships sailed to North and South America, Africa, and Asia. Their journeys sometimes took years. A lot of ships sank during storms. The ships were small and the sailors were brave. Pirates often attacked ships and stole gold and silver.

After about 1800, ships became important for international trade in goods like coffee, tea, and spices. Ships became bigger, and they had a lot of sails to help them go faster.

An Old Spanish Trading Ship



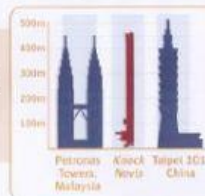
A Modern Cruise Ship

Ships with Engines

Steam engines powered most ships after about 1850. Steam ships had propellers and they were faster than sailing ships. Today, we make modern ships from metal, and their engines use oil or diesel. There are about 35,000 commercial ships around the world. Freighters carry food and clothes, supertankers transport oil, and cruise ships carry passengers on vacation. Korea builds the most ships in the world.



Some supertankers are as long as the tallest skyscrapers. *Knock Nevis* is 458 meters long. Sailors use bicycles to travel along the ship!



Go to pages 38–39 for activities.

- Why were the Ancient Greek ships fast?
 - they rowed with oars
 - they used sails
 - they used sails and rowed with oars
 - they had a compass
- How do sailors know which direction to sail in?
 - use Google Maps
 - use Map
 - use a compass
 - look another ship
- What fuels do modern ships use?
 - oil and diesel
 - gasoline
 - water
 - fire
- What ships do tourists use when they go on vacation?
 - freighters
 - supertankers
 - cruise ships
 - rafts
- How do sailors travel along Knock Nevis?
 - walk
 - use bicycles
 - use jet packs
 - use cars

(E32204) Midterm Examination

3 Trains, Buses, and Trucks

Transportation became much faster after the invention of engines. We use buses to transport people and goods, trucks to transport freight, and trains to transport people and freight.

Trains

In 1804, Richard Trevithick built the first train in Wales in the United Kingdom. Its steam engine used coal to heat water. The hot water made steam, and the steam powered the engine. The train moved along two metal tracks called a railroad. In 1825, the world's first railroad system opened in the United Kingdom. Soon, railroads with steam trains were common all around the world. By 1930, steam trains could travel at about 150 kilometers per hour.

An American Steam Train



12



A Korean High-Speed Train (KTX)

In 1862 the first underground train system opened in London in the United Kingdom. Today, more than 160 cities around the world have underground trains.

Modern trains have electric motors or diesel engines. Some long-distance trains have restaurants, and sleeper cars with beds for passengers to sleep in. Trains are good because they use less fuel per passenger than cars, buses, or planes. Some high-speed trains can travel at more than 300 kilometers per hour.



The longest train journey in the world is 9,288 kilometers. The Trans-Siberian Express takes six days to travel across Russia, from Moscow to Vladivostok.



13

Buses

Horses pulled the first buses 200 years ago. Buses became popular as cities became bigger, because people traveled on buses to get to work. Modern buses have diesel engines or electric motors. Most buses can carry more than 40 passengers, and some very long, articulated buses can carry 120 people. In many countries, special buses take children to school. In places with no trains, buses carry passengers long distances between cities.

In some countries, buses carry a lot of passengers and goods. Where the hills are very big, people use trucks instead of buses because they are more powerful.

An Indian Bus



14

Trucks

Trains can only go on railroads, but trucks can go anywhere where there are roads. Trucks can carry many different things. Tanker trucks carry gasoline or milk. Refrigerator trucks keep food cold. In mining areas, people use huge trucks to carry coal and rocks.

Long trucks often have a cab for the driver and a separate trailer for the freight. The cab with a separate trailer helps long trucks to turn. Some cabs have a bed, so the driver can drive a long distance and then stop and sleep.



One of the biggest trucks in the world is the Terex Titan in Canada. Each wheel is bigger than two people!



Go to pages 40-41 for activities.

15

11. Where did people build the first train?
 - a. UK
 - b. USA
 - c. Ukraine
 - d. Korea
12. What uses the most fuel per passenger?
 - a. cars
 - b. trains
 - c. trucks
 - d. buses
13. How long does it take the Trans-Siberian Express to travel across Russia?
 - a. one day
 - b. six days
 - c. seven days
 - d. two weeks
14. Where was the world's first underground train system?
 - a. Bangkok
 - b. Beijing
 - c. Seoul
 - d. London
15. Why did buses become popular?
 - a. people take to get work
 - b. it's cheap
 - c. it's very fast
 - d. it can go to the very big hill