

## EVOLUTION OF TRANSPORT AND COMMUNICATION.

### DEVELOPMENT OF TRANSPORT AND TRADE.

#### I) The wheel.

The wheel, a hugely important part of our lives, was invented about 5,000 years ago. The earliest human beings did not have vehicles to carry large and heavy things-they dragged them from place to place. Some people realized that things that roll move faster than things that are dragged. They started moving heavy objects with the help of rollers made of wood. Gradually people invented wheels, which made it much easier to move things from place to place. The earliest vehicles to use the wheel were animal-drawn vehicles, like carts. We know this because of various sources, like the clay cart.

#### II) Powering early vehicles.

You have learnt that as villages and towns had surplus goods, trade started. Wheeled vehicles, like carts, could transport goods from place to place. The muscle power of bullocks or horses was used to move the vehicles. People also transported goods by water. Boats used the muscle power of rowers, while sail boats used wind power.

#### III) Trade with distant places.

At first people traded with places that were not too far away, which they could reach easily. As trade grew, people began to travel to more distant places. This trade happened over land and by sea. As means of transport improved, trade grew. Carts could not be used for travel over land, as there were few roads. So, for overland trade, goods were carried on animals like camels through the deserts of Asia and Africa. It was easier to transport goods to some places by sea in sailing ships. People travelled long distances in the ancient world because of trade. Marco Polo, a trader who lived in the 13th and 14th centuries CE, travelled from Europe over land to China. He wrote a book about his travels. The map shows some of the routes along which ancient traders travelled. Some centuries later, there were three famous sea journeys from Europe to distant parts of the world.

Christopher Columbus- tried to find a trade route to India by sea, because the trade route over land had various difficulties. He sailed west from Europe, but reached America instead.

Vasco da Gama -also made his journey to show that it was possible to reach India from Europe by sea.

Ferdinand Magellan- sailed west from Europe looking for a way to reach the East Indies (South-east Asia), also important for trade. His ships returned to Europe, having sailed around the world. This proved that the earth is round. Until then people had believed that the earth is flat. The long journeys of these explorers were possible because shipbuilding in Europe had improved a great deal.

#### IV) Travelling becomes faster and faster.

For thousands of years human beings used the power of the wind or muscle power for vehicles. In the 18th and 19th centuries, the power of steam was discovered, which

changed travelling. New steam ships used this power in engines fitted in their ships. Sea journeys became faster. A journey from England to India, that took several months by sailing ships, could be made in six weeks. Steam was also used to power locomotives (engines) of the first trains, which were invented in the early 19th century in England. Later in the 19th century, crude oil, or petroleum, was discovered. Petrol is made from petroleum. Towards the end of the 19th century, the first motor car that used petrol was invented in Germany. In the early 20th century, the first short flight of an aeroplane using a petrol engine took place in the United States. During the 20th century, many advances took place in all types of transport. Today electricity is also used to power railway engines and some motor cars. Transport today is quite different from early transport, but vehicles that use animal power are still found in some places. The time taken for most journeys is also much less- for example, an air journey from India to England takes only 8-10 hours.

#### THE EVOLUTION OF COMMUNICATION.

Communication means to be in touch with others through speaking, writing, reading or travelling. We can communicate easily and quickly, even with people who may be far away, because of technology. Just as travel and transport were very different in earlier times, so were the methods of communication.

##### I) Early methods of communication.

The earliest people communicated only by speaking. As cities and civilizations developed, people felt the need to write down things like details of their trade, poems, stories, messages, etc. Today people all over the world use writing as an important way of communicating with others. For hundreds of years, letters were carried by people who travelled by walking, riding, or by carriages or boats. Sometimes letters took many months to reach. About 3,000 years ago, people realized that homing pigeons had the ability to fly back to their homes. They could also be trained to fly between two places. People began to use pigeons to deliver messages quickly. Brief messages were tied to the leg of a pigeon who flew off to deliver it. This was so successful that pigeons were used even during battles, right up to the 20th century, to send urgent messages.

##### II) Technological developments in communication.

Printing press- All writing was done by hand until the 15th century CE, when the first printing press was invented in Germany. Letters of the alphabet, made of wood or metal, were arranged on a machine to form words and sentences. These were inked and sheets of paper were then printed.

Telegraph, telephone and typewriter- In the 19th century, the telegraph, a method of sending messages quickly using electricity, was developed both in England and in the United States. Later, also in the 19th century, the first telephone conversation took place in the United States. The first typewriter was invented at about the same time, also in the United States.

Radio and television-Messages were first sent by radio in the early 20th century. Later, the first television message was transmitted. Because of these technological developments, communication became much easier and faster than before.

- 1) The printing press made it possible to print many copies of books and newspapers, so knowledge and information became available to many people.
- 2) The telegraph made it possible to send important messages much quicker than sending a letter.
- 3) With the telephone, people who were far away from each other could have a conversation.
- 4) With the typewriter, people could type letters and documents much faster than writing them by hand.
- 5) Radio and television made it possible to deliver news, information and entertainment to thousands of people at the same time. They became very popular all over the world.

### III) Modern communications.

In the 19th century, the postal system was developed so that people could send letters and parcels by post. Letters posted in a post office were sent by train or by boat and were delivered by postmen. Senders paid for this service by buying stamps. Today, letters are still delivered by the post office, but there are also courier services that deliver letters and packages.

Much of the change in our methods of communication has happened because of developments in technology.

- 1) Satellites- The first man-made satellite was sent into space in the mid-20th century. Today such satellites have many different functions. Communication satellites allow radio, television, and telephone transmissions to be sent live anywhere in the world.
- 2) The Internet- This is a world wide web of connections which makes instant communication possible. With computers, laptops, tablets or smartphones, the Internet is used to:
  - i) send and receive emails.
  - ii) get information from any part of the world.
  - iii) use social networking sites.
  - iv) upload and download pictures.
  - v) book travel tickets and shop online.
- 3) Mobile phones- Mobile phone networks are found in many places where the earlier telephone system could not reach. This has helped many more people to be connected. Developments in transport and communication make the world seem like a smaller place as we can travel or communicate much faster than before.

### SUMMARY.

- 1) The invention of wheel made transport easier.

- 2) Travel grew because of trade; several famous journeys were made.
- 3) Inventions in the 19th and 20th centuries made travel easier and faster.
- 4) In ancient times letters were carried by people, but pigeons were also used sometimes.
- 5) Communication became easier because of several inventions in the 19th and 20th centuries.
- 6) Modern communication is very fast because of satellites, the Internet, computers, mobile phones, etc.
- 7) In 1888, Bertha Benz wanted to prove to her husband that the car he had invented could travel long distances. Without telling him, she took the car and travelled over 100 kilometers. The journey took from dawn to dusk and proved that motor car travel was possible.
- 8) The first writing developed in Mesopotamia over 5,000 years ago. People wrote on pieces of clay, called tablets, with 'pens' made of reeds, a type of water plant. Paper was first invented In China several thousand years later.