

THE INVENTION OF THE WHEEL: A GAME CHANGER

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HIGH

Imagine you wake up one morning, step outside, and discover something shocking—every vehicle in your neighbourhood has lost its wheels! School buses, cars and bikes are completely motionless. Trains stand still on the tracks, and even aeroplanes, usually soaring high in the sky, are stuck on the ground. Can you picture the chaos? No more quick trips to school, no smooth rides across the city—just a world where moving from place to place suddenly feels slow and difficult.

Now, think about how the wheel quietly powers our world. It's a simple invention, but it's the reason we travel quickly and smoothly. Have you ever paused to wonder: How did such a small idea have such an enormous impact on human life?

Though we cannot pinpoint the exact time and place of the wheel's invention, historians believe it emerged around 3500 BCE in Mesopotamia (modern-day Iraq). It's thought that early humans noticed how circular objects, like logs, could roll more easily than objects with sharp edges. At first, they likely placed heavy objects on wooden logs to move them, but this method wasn't perfect. The heavy items would often slip off.



Fig. 3.4: wooden log

To solve this problem, humans began cutting logs to form two circular pieces connected by a narrow rod, forming the first wheels. The rod served as the axle. This simple but brilliant idea evolved into carts, enabling people to transport goods and travel more efficiently.

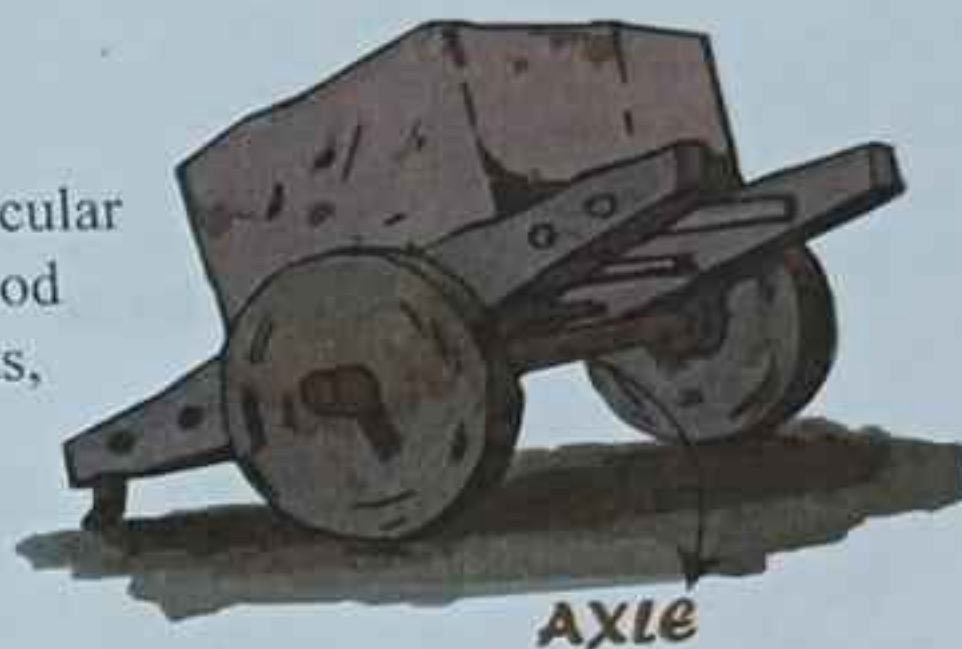


Fig. 3.5: the wheel and the axle

The impact of the wheel was monumental. What started as a simple wooden device became the foundation for transportation as we know it today.

21st Century Skills: Information Literacy: Wheels Are Everywhere



Fig. 3.6: a potter's wheel

Wheels have been essential not only for travel but also for a variety of other purposes since ancient times. One of the earliest uses of the wheel was in pottery making, known as the potter's wheel. Over the centuries, wheels have become an essential part of countless machines and devices that make our lives easier.

Today, wheels quietly work inside many machines and appliances that we use daily. Have you ever wondered where these hidden wheels might be in your home? Let's explore!

Find out:

1. Identify one machine in your home that uses a wheel in its mechanism.
2. What is the size of this wheel?
3. What important function does this wheel serve in making the machine work?

ECHOES OF THE PAST: FROM FEET TO FLIGHT

Imagine being an early human, standing on the shores of Africa, looking out over vast landscapes and wondering what lies beyond. Thousands of years ago, our ancestors began migrating on foot, crossing mountains, rivers and deserts, seeking new lands. Fast forward to today – we fly over oceans in hours! It is hard to believe that the early humans who walked across continents paved the way for journeys that now take us around the globe in a few hours. How did we go from walking to flying? The story of transportation is one of remarkable human achievements!

Warm-up

Today, we cannot imagine a world without cars and aeroplanes. However, these means of transport are relatively recent inventions. For hundreds of years, people used non-motorised transport. Consider this and answer the following questions:

1. Name the vehicle shown in Fig. 3.2.
2. What similarities and differences does it share with a car?
3. How do you think it feels to ride in these vehicles?



Fig. 3.2

INTRODUCTION: THE STORY OF THE BEGINNING OF HUMAN TRAVEL

As you have learnt in the previous chapter, modern humans, or *Homo sapiens*, first appeared in Africa around 200,000 to 300,000 years ago. In search of food, water and shelter, they embarked on long journeys across continents. At that time, their feet were the only means of transport, and they walked vast distances to survive. This period marked the beginning of human travel, driven purely by necessity.

However, about 12,000 years ago, something remarkable happened that changed the course of human mobility: the domestication of animals. Early humans learnt to tame animals like horses, oxen and camels, which became essential for travel and transportation. These animals not only carried people but also transported heavy goods, making travel faster and more efficient. Imagine how **revolutionary**¹ this must have been! These animals were also used for food and materials, as they provided meat, milk and hides.

This newfound ability to use animals for travel helped humans connect with distant communities, paving the way for trade and interaction between regions.

However, despite this progress, travel was still slow and difficult. People longed for an easier and more reliable way to move. This led to one of the greatest inventions in human history: the wheel.



Fig. 3.3: early humans travelling on foot

3. EVOLUTION OF TRANSPORT AND COMMUNICATION

Key Takeaways

By the end of this chapter, you will be able to:

- describe the evolution of transport and communication.
- compare and contrast the traditional and modern methods of communication.
- analyse the cause and effect of technological advancements in transport and communication.
- evaluate the significance of modern transport and communication in global connectivity.
- explain the enduring impact of technological evolution on society.

TIMELINE: EVOLUTION OF TRANSPORT

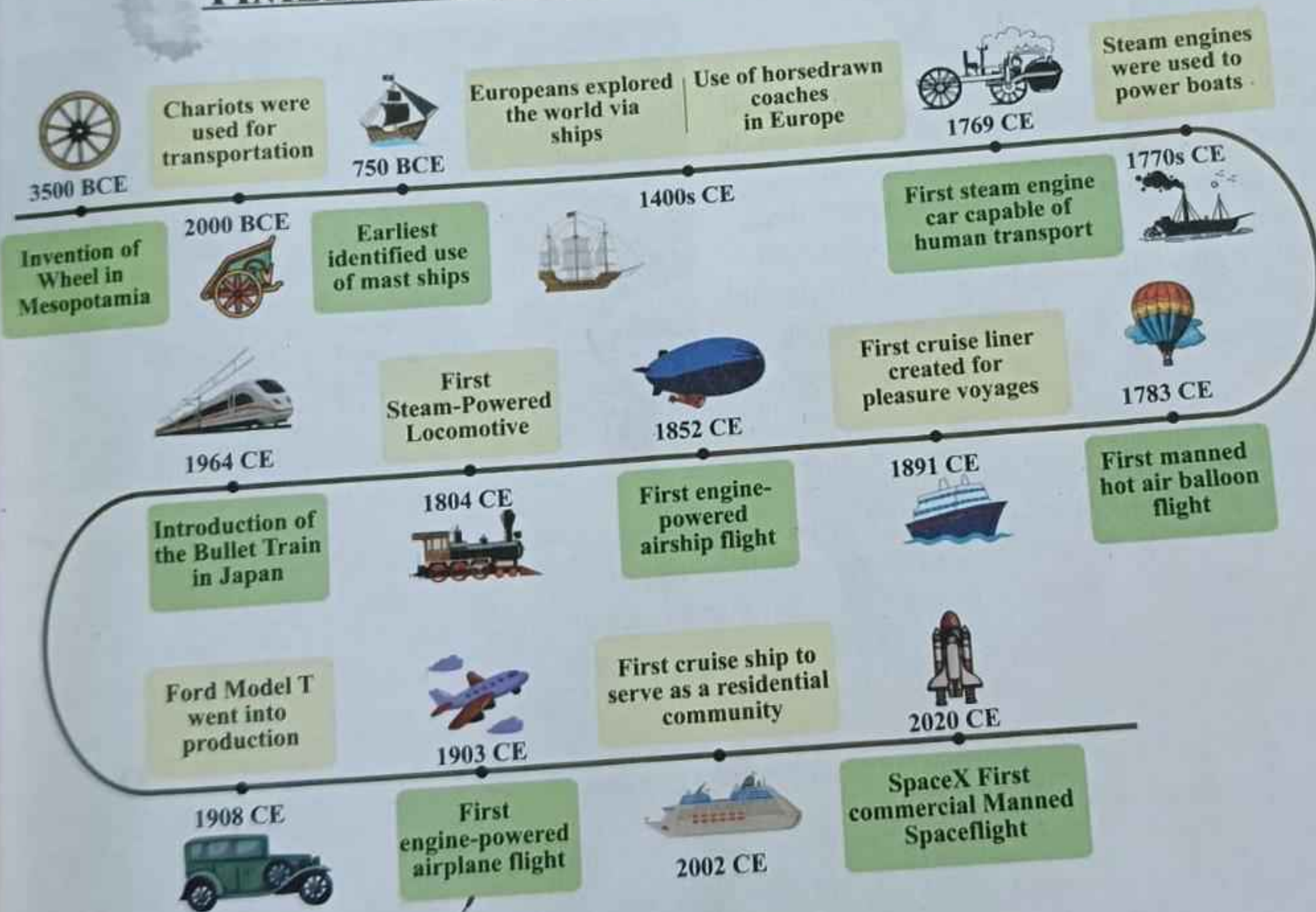


Fig. 3.1: evolution of transport

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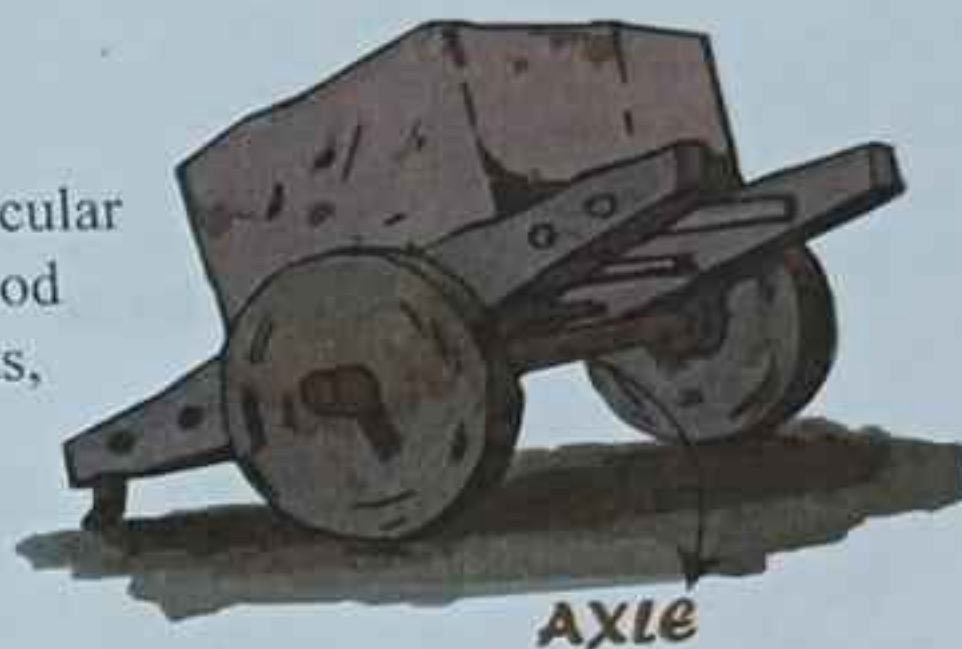


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