

GSP2203 MODULE 4

TECHNOLOGY & SOCIETY

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Learning Objectives

Students are expected to :

- Define and understand the difference between Science and Technology
- know the positive and negative effect of technology.
- Understand the role of technology on socio-economic development
- Explain the impact of technology on Culture, Politics and Religion
- Understand the level of technological advancement in the ancient Kano city in the past.

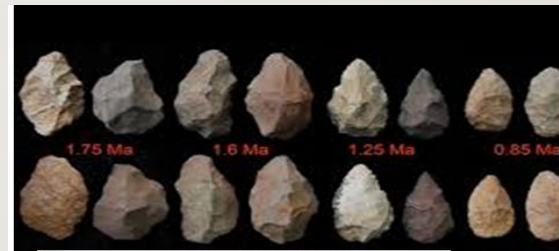
INTRODUCTION

- **Science** is defined as a system of acquiring knowledge based on the **scientific method**.
- **Scientific method** is the processes which scientists follow to conduct research.
- **Scientific method includes:** Observations, Hypotheses, Experimentations , Analysis, Interpretation and Deductions to describe and explain natural phenomena.

CONTINUATION

- **Technology** can be defined as the application of scientific principles/knowledge to create products that solve problems and improve human life.
- Human beings have been making and using tools from stones, bones and sticks in an adhoc manner since time immemorial. The tools were simply made for satisfying basic needs in getting shelter, clothing, protection and food. The shapes and sizes of the tools were kept on changing to suit their needs.

PRE-TECHNOLOGICAL INVENTION



Earlier Stones



Polished stones



Pre-Technological Invention

EARLY TECHNOLOGICAL INVENTIONS



Wheels made from wooden planks



CO NTINUATION



Wind mill



Locomotive train

ADVANCED TECHNOLOGICAL INVENTIONS



Rockets



Combined harvester



Fabrics

TECHNOLOGY IS EVERYWHERE

- Generally, technology is everywhere be it agriculture, buildings, transportation, textiles, printing, politics etc.
- Without technology we would be living in caves, no papers or pencil to write, no cloth to wear, no vehicles to travel, no books to read, no electricity etc. Therefore, life would be unbearable without technology


IS TECHNOLOGY GOOD OR BAD

- Technology is good: looking at the positive benefits in all aspect of life
- Technology is bad : Superpowers use Ballistic missile warheads for mass destruction
- Technology is neutral :Generally, technology is neither good nor bad but it depends on the individuals or the society to either use it in a beneficial way or in a harmful way.

IMPACT OF TECHNOLOGY

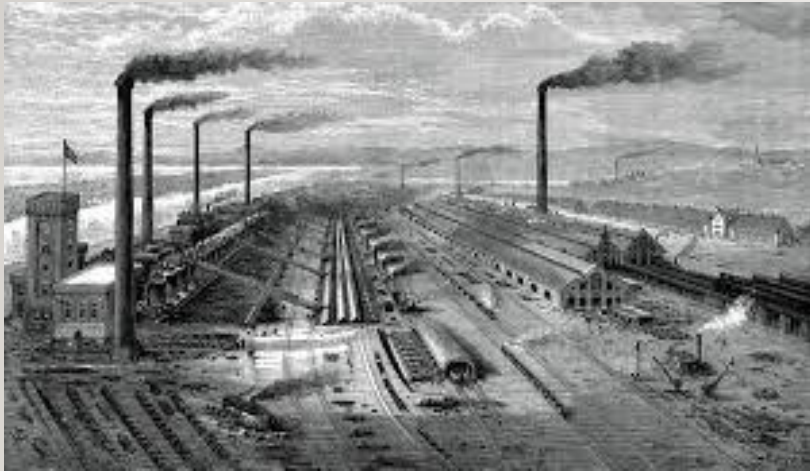
- **Agriculture** :Modern agricultural implement gives high yield of food in a short period of time with less input
- **Transportation** : Modern Transportation uses vehicles, trains, airplanes, roads etc
- **Communication** :Whiteboards, computers, projectors and internet are presently being used in classrooms. Also long distance learning has been opened to many scholars.

CONTINUATION

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- **Economics** :Contribution to GDP growth, New services and industries, Business ,innovation, Workforce transformation
 - **Development** : social changes, living standards, enhances the security of lives and properties, has simplified many tools that people need in education, medicine, communication, transportation
 - **Education** :Whiteboards, computers, projectors and internet are presently being used in classrooms.Also long distance learning has been opened to many scholars around the world.
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INDUSTRIAL REVOLUTION

It was a period in which fundamental changes in agriculture, textile and metal manufacturing started in Europe.



Industrial area



Train

The figures above show an industrial area and a train that were used during the industrial revolution.

INFORMATION REVOLUTION

Information revolution describes the current economic, social and technological trends that is making the entire world into a global village.



Digital electronic devices

TECHNOLOGY IN ANCIENT AND MODERN KANO



An ancient style of buildings

The ancient Kano city walls were built in order to provide security and protection to the inhabitants of the ancient city of Kano. The city wall is 14km radius and the foundation for the construction of the wall was laid by saikin Gijimasu from 105-1134 and was completed in the middle of 14^h century during the reign of Zamnagawa

CONTINUATION



Modern style of buildings

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Ancient Kano Dye Pits

- The Kofar Mata Dye Pits were established in 1498 and situated in the city centre as way back as 500yrs. It is an indigenous technology and also played a significant role in the economy of the inhabitants of the ancient people of Kano city Kano.



ANCIENT KANO TANNERY

- A tannery is a place where skins and hides from animals especially cows are processed into leather.
- Figure (a) how the ancient people of Kano city produce leather locally.
- Figure (b) shows person holding a fished leather produce from the hides of a crocodile.



(a)



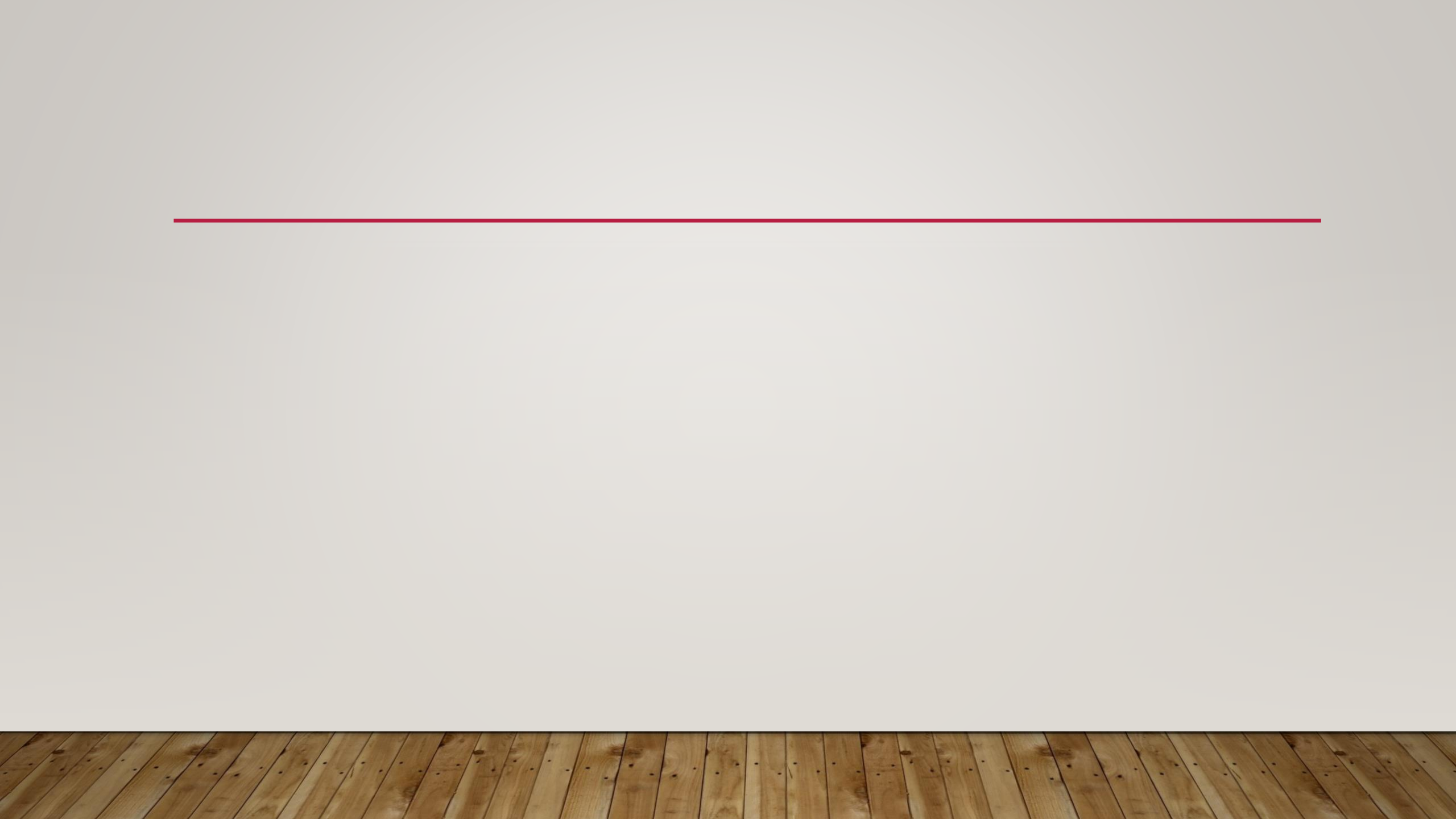
(b)

IMPORTANCE OF TECHNOLOGY

- Technology improves the standard of living
- Boosted industries and businesses have grown.
- More employment opportunities have been created.
- Evolution of newer and faster modes of transport and communication
- The computer and Internet technologies have changed every sector

CONCLUSIONS

- Life will be totally unbearable without technology.
- Technology has touched every aspect of life and makes it easier, better and different.
- World entirely depends on science and technology
- The dependence on technology shows that, it is either a master or a slave.



THANK YOU FOR LISTENING

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