



MARIANO MARCOS STATE UNIVERSITY

College of Teacher Education

Center of Excellence in Teacher Education



Science Technology and Society

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SCIENCE TECHNOLOGY AND SOCIETY AND THE HUMAN CONDITION



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Objectives

1. Discuss technology as a way revealing
2. Discuss the importance of diversity and collaboration in the scientific world.
3. Identify the different technological advancements and their effects on humanity



LESSON 2: TECHNOLOGY AS A WAY OF REVEALING

Science and Technology have changed the ways we live, work and think. The well-being of individuals, nations and the earth depends on techno - scientific discoveries and inventions.

Science is an organized way of studying things and finding answers to questions.

Scientific method is an approach to seeking knowledge that involves forming and testing a hypothesis.



STEPS IN SCIENTIFIC METHOD

1. Observe and identify using your senses the unexplainable occurrences around you.
2. Identify the problem
3. Formulate hypothesis
4. Conduct experiment – dependent and independent variables
5. Gather and analyze the data once experiment is complete.
6. Formulate conclusion and provide recommendation



IMPORTANCE OF DIVERSITY AND COLLABORATION

1. **Collaboration and diversity balance possible biases.** Scientist benefits from other scientists and practitioners with different sets of beliefs, cultural backgrounds and values to balance out the possible biases that might happen if science were practiced by a small group of humanity.
2. **Diversity and collaboration stimulate problem solving.** Science benefits greatly from a community. A diverse community is better able to generate new research methods, explanations and ideas.



IMPORTANCE OF DIVERSITY AND COLLABORATION

3. **Diversity and collaboration facilitate specialization.** Scientists have different strengths and different interests.
4. **Diversity and collaboration are inspiration and motivation.** Scientific community offers recognition . Nobel Prize awards. Respect and esteem from colleagues.
5. **Diversity and collaboration divide labor.** Collaborations and division of labor are important today because there is expansion of scientific understanding, techniques and technologies.



TECHNOLOGICAL ADVANCEMENTS AND THEIR EFFECTS ON HUMANITY

1. Technological advancements affects our personal lives..., mobile phones , computers , travels etc.
2. Technological advancements have helped businesses and organizations to save time and cost of production ---gain competitive advantage .
3. Technological advancements in medicine and health care technology has helped in saving many innocent lives, medical technological tools - robotic surgeon, neuroprosthetics chips which prevents seizures and control artificial limbs with mind, artificial wombs, Nano - composite contact lenses etc. COVID 19 pandemic showed us STS.



TECHNOLOGICAL ADVANCEMENTS AND THEIR EFFECTS ON HUMANITY

4. Communication Technology – live video call, smart phones etc.
5. Agriculture – increased production and abundant food supply. Genetically modified organisms . Advanced sprinkles.
6. Education - mobile gadgets, OHP, smartboards access academic information at anytime anywhere.



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