

Science, Technology, and Nation-Building

At the end of this lesson, the students should be able to:

- Explain how early Filipinos applied scientific principles in their daily living;
- Present government policies on science and technology and explain their importance to the nation; and
- Discuss the role of science and technology in nation-building.



Introduction

This lesson will discuss the influence of science and technology in the development of the Philippine Society. It identifies government programs, projects, and policies geared toward boosting the science and technological capacity of the country.

This lesson will also include discussions on Philippine indigenous science and technology.



PHILIPPINES' PRE-COLONIAL PERIOD



Scientific and Technological development in the Philippines began in the Precolonial Period . Even before the Spaniards came to Philippine island,

- Early Filipinos settlers were already using certain **plants and herbs as medicines**.

- Systems of **farming and animal-raising** were also implemented.

- Moreover, early Filipinos had also developed different **mode of transportation , whether terrestrial or maritime**.



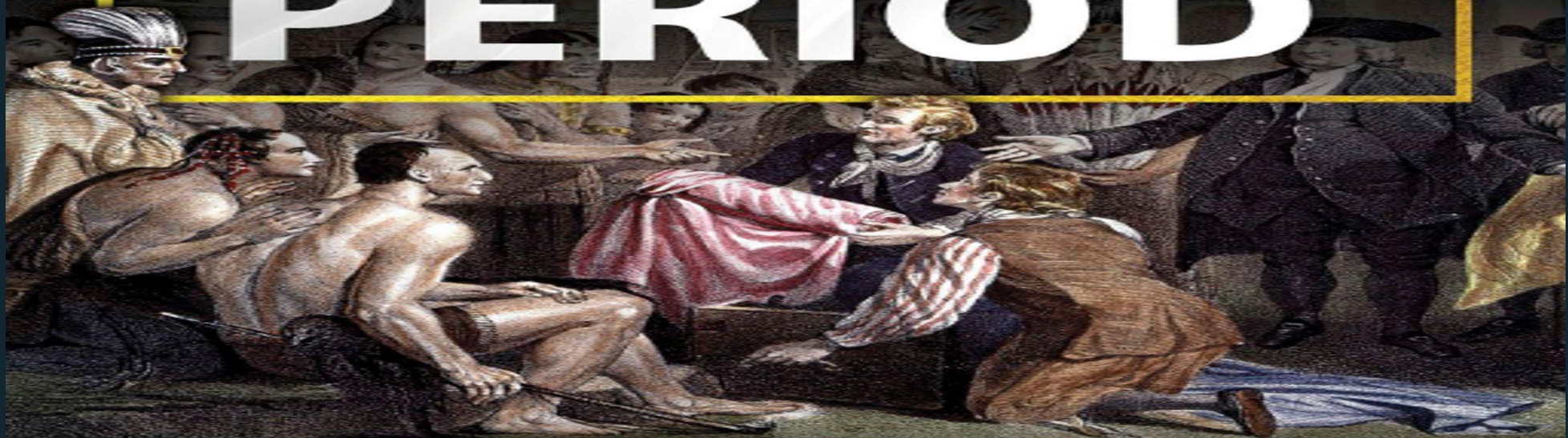


A complicated engineering feat was achieved by natives of the Cordilleras when they built **RICE TERRACES** by hand. Through these , terraces , the people were able to cultivate crops on the mountain sides in cold temperature .



EARLY AMERICAN HISTORY

THE COLONIAL PERIOD



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Britannica
Educational Publishing

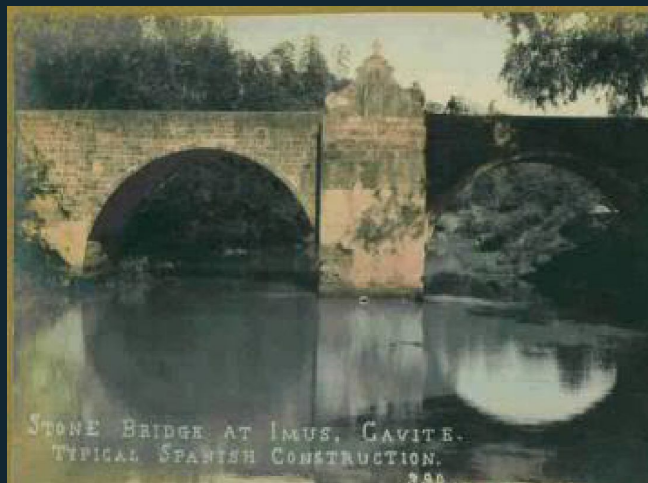




Colonization by the Spaniards
provided the Philippines with
modern means of construction.



Walls, roads, bridges and other infrastructures were built using some of the engineering skills and tools brought by the Spaniards.



The Spanish government developed health and education systems that were enjoyed by the *Principalia* class.





The American
established a
government agency, the
Bureau of Science , for
the sole purpose of
nurturing development
in the field of science
and technology.





POST-COLONIAL PERIOD



After achieving independence from the colonizers the Philippines , under different administrations, continued to pursue programs in Science and Technology.





Remember this,
who is he?



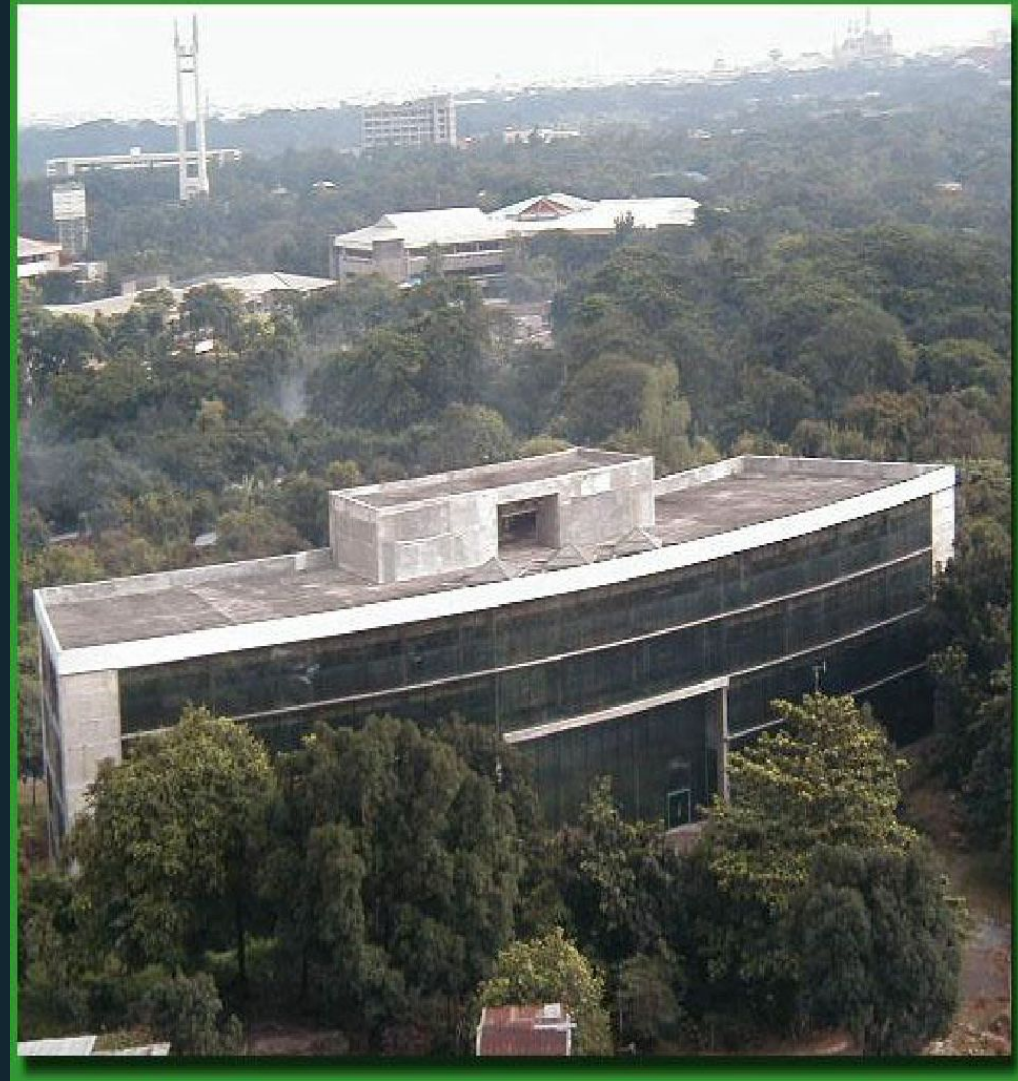
FERDINAND MARCOS

One of the president who ushered in
advancements in Science and
Technology

What are they?



PHILIPPINE ATMOSPHERIC GEOPHYSICAL AND ASTRONOMICAL SERVICES AND ADMINISTRATION (PAGASA)





The **National Academy** of Science and **Technology** is mandated: To recognize outstanding achievements in science and **technology** as well as provide meaningful incentives to those engaged in scientific and **technological** researches. To advise the President and the Cabinet on matters related to science and **technology**.



Influences in the Development of S & T in the Philippines



Famous Filipinos in the Field of Science

Lea-Chua (2000) identified 10 outstanding Filipino scientists who have made significant contributions in Philippine science. These scientists are also famous abroad especially in different science disciplines, agriculture, mathematics, physics, medicine, marine science, chemistry, engineering and biology.



Famous Filipinos in the Field of Science

1. **Ramon Cabanos Barba** – for his outstanding research on tissue culture in the Philippine mangoes.
2. **Josefino Cacas Comiso** – for his works on observing the characteristics of Antarctica by using satellite images.
3. **Jose Bejar Cruz Jr.** – known internationally in the field of electrical engineering; was elected as officer of the famous Institute of Electrical and Electronic Engineering.
4. **Lourdes Jansuy Cruz** – notable for her research on sea snail venom
5. **Fabian Millar Dayrit** - for his research on herbal medicine.



Famous Filipinos in the Field of Science

6. **Rafael Dineros Guerrero III**— for his research on tilapia culture.
7. **Enrique Mapua Ostrea Jr.**— for inventing the meconium drugs testing.
8. **Lilian Formalejo Patena**— for doing research on plant biotechnology.
9. **Mari-Jo Panganiban Ruiz**— for being an outstanding educator and graph theorist
10. **Gregory Ligot Tangonan**- for his research in the field of communications technology.



Famous Filipinos who recognized here and abroad for their outstanding contributions in science.

1. **Caesar A. Saloma**— an internationally renowned physicist.
2. **Edgardo Gomez**— famous scientist in marine science.
3. **William Padolina**— chemistry and president of National Academy of Science and Technology (NAST)-Philippines
4. **Angela Alcala**— notable for her marine science



THINGS TO REMEMBER!

COMPLETE THE ACTIVITY IN GOOGLE CLASSROOM THAT
WILL ASSESS YOUR IMAGINATION 😊 (Checking will be on
our schedule of Asynchronous Discussion).



-END-
**Thank you and Keep Safe
Everyone!**

