

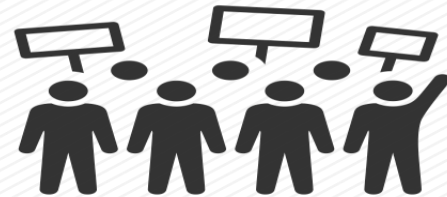


# **INDIGENOUS SCIENCE AND TECHNOLOGY**



# INDIGENOUS SCIENCE

- Product of indigenous knowledge perfected by people through life experiences.
- Traditional and non-scientific knowledge because it includes superstitious beliefs and practices.
- Foundation of people's creativity, originality and inventiveness.





# EXAMPLES OF INDIGENOUS SCIENCE

- Knowledge in observing animal behavior to predict weather conditions and seasons.
- Traditional health habit practices
- Use of herbal medicines
- Knowledge on preserving foods
- Preservation and selection of good seeds for planting
- Building irrigation system





# EXAMPLES OF INDIGENOUS SCIENCE

- Classifying different types of soil for planting
- Making wines and juices from fruits
- Local methods of growing vegetables in the yard
- Indigenous method of calculating or estimating
- Knowledge on mineral resources found in the community
- Making products such as vinegar, cheese and nata de coco.



# INDIGENOUS TECHNOLOGY

- Processes or products that are the results of studying indigenous science.





# **EXAMPLES OF PHILIPPINES INDIGENOUS TECHNOLOGY**



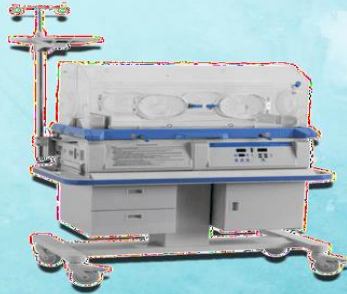
## YOYO

- Yoyo is a toy consisting of an axle connected to two disks and a string looped around the axle.
- This was a product of the creative mind of Pedro Flores.
- This was used by people before to fight against intruders and Spaniards.
- It was the Americans who mass produced the product.



## MEDICAL INCUBATOR

- Medical incubator was invented by Fe Del Mundo, the first Asian student at Harvard University's School of Medicine
- She founded the first pediatric hospital in the Philippines.
- Medical incubator was purposely invented to regulate the body temperature of newborn babies.



**MEDICAL INCUBATOR**  
Invented by Dr. Fe Del Mundo





## ERYTHROMYCIN

- In 1994, Dr. Abelardo Aguilar discovered the antibiotic Erythromycin produced by the bacteria *Streptomyces erythreus* found in the soil of his own province, Iloilo.
- He sent this to his employer in the US to separate the strain, but unfortunately, he did not get credit for the discovery.



## PATIS OR FISH SAUCE

- Fish sauce was discovered by Ruperta David, who was popularly known as "Aling Tentay".
- She accidentally discovered patis in the 1940s when she noticed that some of the salted fish that she stored in a jar turned into fragments, and these fragments turned into liquid that tasted like the patis we are using.
- It was only officially registered in 1949 as Tentay Food and Sauces, Inc.



## BANANA CATSUP

- Banana catsup, a condiment used for fried food, was created by Maria Orosa Ylagan.
- She also created other food products, like a dessicated powdered form of calamansi called calamansi nip and a powdered preparation of soya beans called soya-lac, which was used to save the lives of many prisoners held by the Japanese during WWII.



## 16- BIT MICROCHIP

- The 16-bit microchip, known as the first single chip graphical user interface accelerator, was created by Diosdado Banatao.
- This chip allows computer users to make graphical presentations using graphics for commands.
- Data processing is much quicker using small chip instead of large board.





## De BCC ANTI CANCER CREAM

- Rolando Dela Cruz developed an anti cancer cream from cashew nuts and other local herbs to treat Basal Cell Carcinoma (BCC) which is considered to be the most prevalent type of skin cancer.
- He called it De BCC anticancer cream which won him a gold medal in the International Inventor's Forum in November 2005.





# DE WART MOLE REMOVER

De Wart was made by Rolando Dela Cruz in 2000.

It is a cream formulated to remove warts and moles on the skin.

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## REFERENCE:

Ilagan Y, Balinado L, Digma J. et'al. Science, Technology and Society. Panday-Lahi Publishing Inc.

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