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#### Introduction

The intention of this didactic guide is to propose alternatives and ideas to work in the classroom with this **Scientific School Calendar**. All the proposed activities can be adapted to the different ages and the teachers are free to make as many changes as they deem appropriate for a better didactic use. Therefore, the proposed activities should be understood only as guidelines. It will be each teacher who will get the most out of their group-class.

Although all the activities may be used in different subjects depending on their final orientation, they would be more meaningful as interdisciplinary work in **STEM** subjects (Science, Technology, Engineering, and Mathematics) and others more specific of humanities. The aim is to promote a comprehensive scientific culture and critical thinking that is applicable to all fields of knowledge.

The didactic proposals that accompany this Scientific Calendar are based on the principles of inclusion, normalization, and equity. In order to develop activities that are useful to all students, the provided tasks include a wide range of skills and difficulty levels. When these tasks are developed cooperatively, it will allow all students in the classroom to make valuable and relevant contributions. In any case, it is important to understand the activities proposed here as base examples that can and should be adapted to the specific circumstances of the students and the classroom. Similarly, the evaluation rubrics should also be a starting proposal that must be adapted to the reality of the classroom.

At the end of the document, you will find several general accessibility guidelines and scientific work guidelines related to accessibility and universal design.

Last, 24 easy-to-read ephemerides are also provided as a reference to work with younger students with communication difficulties.



#### 1. ACTIVITY

#### **CARD OF THE SUPER-SCIENCE ACADEMY**



#### Goals:

- To familiarize students with prominent figures in the history of science.
- To provide an overview of science as the cumulative work of many people and over a long period of time.
- To promote the values associated with science and its methods.

#### **Contents:**

- Concepts and basic elements about the person(s) and its/their historical moment.
- Methods of searching for information in analogic or digital media.
- Assessment of the diversity of personal and professional profiles that contributed to the progress of science, in particular with a gender perspective.

#### **Key competencies:**

Although the activity allows the development of all key competences, it will emphasize on «social and civic competences», «competences in mathematics, science and technology», and «learning to learn competence».

#### Timing:

1 to 2 class sessions (50 to 120 minutes).



#### **Materials:**

Photocopiable cards of the **Super-science Academy**.

#### **Development:**

The activity can be completed individually or in pairs.

The teacher will choose as many ephemerides as needed (one per student in case of individual work) and will fill in the schematic information sheet. Depending on the level of the students and their ability to search, some of the fields may be left in blank and the students will carry out the search.

Each student (or each pair) is given a blank card and the information sheet. Students must fill in the different fields of the card.

Later on, the cards can be laminated to be used in future activities.

#### **Extension:**

The cards can be used as «Memory» cards, the popular matching game, or to make a timeline on the wall of the classroom, or on the hallways of the center.

#### **Evaluation:**

Assessment of the ability to find the requested information and the effort to represent the achievement or discovery into the drawing, in accordance with the following rubric:



25% OF THE Assigned Score	50% OF THE Assigned Score	75% OF THE ASSIGNED SCORE	100% OF THE ASSIGNED SCORE
The student transfers the information contained in the information sheet provided by the teacher but is not able to identify the missing information, even with support.	The student transfers the information contained in the information sheet provided by the teacher and is able to identify the missing information with the teacher's support.	The student transfers the information contained in the information sheet provided by the teacher and is able to identify the missing information alone, or collectively with the classmates.	The student transfers the information contained in the information sheet provided by the teacher, identifies the missing information alone, or collectively with the classmates, and helps others less capable to complete this task.
The graphic representation is hardly related to the person or the commemorated event.	The student transfers the information contained in the information sheet provided by the teacher and is able to identify the missing information with the teacher's support.	The graphic representation presents the person commemorated and includes some reference to the commemorated event.	The graphic representation is a faithful reflection of the person and the commemorated event.



# Teaching information sheet (1st to 3rd year of Primary Education) Name and surname:\_\_\_\_\_\_ Birthdate: \_\_\_\_\_ Female/Male:\_\_\_\_\_\_ How many years did she/he live?:\_\_\_\_\_ Discovery or work field: \_\_\_\_\_\_





Card (1st to 3rd year of Primary Education)



## Teaching information sheet (4th to 6th year of Primary Education) Name and surname:\_\_\_\_\_ Female/male: \_\_\_\_\_\_ Date of birth: \_\_\_\_\_\_ Date of death: \_\_\_\_\_ How many years did she/he live?: \_\_\_\_\_\_ Country:\_\_\_\_\_ Discovery or work field / specialization: \_\_\_\_\_\_ Short biography of 5 to 10 lines: \_\_\_\_\_\_



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	HOW MANY YEARS DID SHE/HE LIVE?:	
	FEMALE/MALE:	X
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Teaching information sheet (Secondary Education)			
Name and surname:			
Date of birth:	_ Date of death:		
How many years did she/he live?:			
Female/male:			
Country:			
	3		



Related scientists:
Influences received and exerted:
In the case of Secondary students, it may be interesting for the teacher to
provide different information in each case. For example, full name only, or
discovery and date of birth, etc.









NAME AND SURNAME:			
FEMALE/MALE:			
DATE OF BIRTH:	DATE OF DEATH:		
HOW MANY YEARS DID SHE/HE LIVE?			
COUNTRY:			
DISCOVERY OR WORK FIELD / SPECIALIZATION:			
RELATED SCIENTISTS:			
INFLUENCES RECEIVED AND EXERTED:			

Card (Secondary Education)



## 2. ACTIVITY TIMELINE

#### Goals:

- To show knowledge generation from a temporary and constantly evolving perspective.
- To favor an interpretation of scientific advances from a historical and non-presentist perspective.
- To encourage a critical approach to the evolution of scientific advances.

#### **Contents:**

- Scientific-technical advances and their historical moments.
- Presence of women and men in different fields of knowledge and different historical moments.
- Relationship between scientific-technical and mathematical advances and the social and scientific environment in which they were developed, including the interaction with other scientific advances.

#### **Key competencies:**

Although the activity allows the development of all key competencies, it will emphasize on «social and civic competences», «competences in mathematics, science and technology», and «learning to learn competence».

#### Timing:

2 to 3 classroom sessions (100 to 180 minutes).

#### Materials:

Applications for creating <u>digital timelines</u><sup>1</sup> or wallpaper and cards.



#### **Development:**

Different ephemerides are selected. Depending on the didactic orientation and the maturity of the students, this selection can be made by the teacher or let the students decide. It can also be limited to a certain period (month, trimester...) and progressively expanded throughout the school year, or addressed in a single moment covering the entire calendar year.

Each student or team (if a more collaborative work is decided) must make a card of their assigned ephemerides. This card will contain the information requested by the teacher or it will be the group-class who determines it collaboratively.

The different cards will be placed physically or virtually in the corresponding temporary place for subsequent consultation or joint visualization.

#### **Extension:**

This timeline can be enriched with the historical context of the different periods, such as great wars that mark historical limits, etc.

A debate can be established about the accumulation or absence of ephemerides at certain times, the greater or lesser presence of women, or the link between these historical events and other relevant ones in the geopolitical or social sphere.

#### **Evaluation:**

The ability to select information and to integrate knowledge in the historical context will be assessed according to the following rubric:



25% OF THE Assigned Score	50% OF THE Assigned Score	75% OF THE ASSIGNED SCORE	100% OF THE ASSIGNED SCORE	
The selected information is incidental or of a very basic nature, and it does not derive from an individual or group reflection process.	The selected information is minimal but relevant, deriving from a superficial reflection process.	The selected information is pertinent. It derives from a reflective process, but it is stated literally	The selected information is pertinent, complete, and not excessive. It has been selected through a reflective process and it has been critically reworked.	
	IN CASE OF ADDRESSING A HISTORICAL DEBATE			
The interpretation of the ephemerides is isolated, without integration into the historical context.	The interpretation of the ephemerides is made based on very superficial elements of historical knowledge.	The interpretation of the ephemerides is coherent from the historical perspective and allows a better understanding of the anniversary.	The interpretation of the ephemerides is coherent from the historical and scientific perspective, it is related in a complex way to other historical events and, in particular, to other scientifictechnical advances.	



#### 3. ACTIVITY

#### STEM EVERYWHERE

#### Goals:

- To show knowledge generation from a global and geopolitical and social perspective.
- To guide an interpretation of scientific advances from a perspective that values the ubiquity of discoveries over time.
- To encourage a critical approach to the evolution of scientific advances.

#### **Contents:**

- Scientific-technical advances, their ubiquity and the importance of scientific training for everyone.
- The presence of scientific-technical developments by people from all countries and nations while they have access to training (academic or informal).
- The relationship between scientific-technical and mathematical advances and the social and scientific context in which they are developed.

#### **Key competencies:**

Although the activity allows the development of all key competencies, it will emphasize on «social and civic competences», «competences in mathematics, science and technology», and «learning to learn competence».

#### Timing:

2 to 3 classroom sessions (100 to 180 minutes).



#### **Materials:**

Historical or contemporary maps. A <u>scholar Geographical Information System (GIS)</u><sup>2</sup> can be used. Another option is to create layers in an interactive map, such as Google Maps.

#### **Development:**

Different ephemerides are selected. Based on the didactic orientation and the maturity of the students, this selection can be made by the teacher or let the students decide. It can also be limited to a certain period (month, trimester...) and it can be progressively expanded throughout the school year, or it can just be addressed in a single moment covering the entire calendar year.

Each student or team (if a more collaborative work is chosen) must prepare a card with the ephemerides assigned to them. This card will contain the information requested by the teacher or it will be the group-class who determines it collaboratively.

The different file cards will be physically or virtually located in the corresponding geographic location for joint consultation or visualization.

#### **Extension:**

This collaborative map can be enriched by layers that mark geographic boundaries across different periods.

A debate can be established about the accumulation or absence of ephemerides in certain places or regions, the greater or lesser presence of women, or the connection of these discoveries to other relevant ones in the geopolitical or social sphere.

This activity and the previous one can be done together to allow a higher level of understanding, debate, and critical thinking.

#### **Evaluation:**

The ability to select information and to integrate knowledge in the historical context will be assessed according to the following rubric:



25% OF THE Assigned Score	50% OF THE Assigned Score	75% OF THE Assigned Score	100% OF THE Assigned Score
The selected information is incidental or of a very basic nature, without responding to an individual or group reflection process.	The selected information is minimal but relevant, responding to a superficial reflection process.	The selected information is pertinent, it responds to a reflective process, but it is stated literally.	The selected information is pertinent, complete, and not excessive, it has been selected through a reflective process and a critical reworking of it is recorded.
IN CA	ASE OF ADDRESSING A GE	OPOLITICAL AND SOCIAL	DEBATE
The interpretation of the ephemerides is isolated and is not integrated into the historical, geopolitical, and social context.	The interpretation of the ephemerides is made based on very superficial elements of historical, geopolitical, and social knowledge.	The interpretation of the ephemerides is coherent from the historical, geopolitical, and social perspective, allowing a better understanding of the event.	The interpretation is coherent from the historical, geopolitical, social, and scientific perspective. It is related in a complex way with other historical events and, in particular, with other scientifictechnical advances.



#### 4. ACTIVITY

#### **TEMPORARY AGENT OF THE IOPSA**

(International Organization for the Protection of Scientific Advances)

#### Goals:

- To analyze scientific and technical advances from a comprehensive and contextualized perspective.
- To establish methods for collecting scientific and technical information and subsequent divulgation.
- To encourage curiosity and critical thinking in the search and presentation of information.

#### **Contents:**

- The outstanding information of the personality or the event chosen or honored.
- Types of texts: interview, news, speech...
- Truthful and educational presentation of the information.

#### **Key competencies:**

Although the activity allows the development of all key competencies, it will emphasize on «linguistic communication competence», «social and civic competences», «digital competence«, and «initiative and entrepreneurial spirit competence».

#### Timing:

2 to 3 classroom sessions (100 to 180 minutes).

#### **Materials:**

Analogical or digital resources (on or off-line) to search for information.



#### **Development:**

Different honored personalities are selected, either by the teacher or by the students collectively.

The classroom is divided into groups and each group will be assigned one of them. Each group of students will therefore be a team of **temporary agents of the IOPSA** (International Organization for the Protection of Scientific Advances). Temporary IOPSA agents travel through time taking care of the memory of scientific advances, their correct interpretation, and recognition.

As part of their mission, they will be responsible for one or more of the following tasks:

- The records are fragile and could be lost. Thus, temporary agents keep up-todate the first-hand information obtained from the scientists themselves. The team must conduct a fictitious interview with the assigned personality and record the results in a **Top Public report** (License to disclose).
- The recognition of the general public is important, but so is the recognition of the scientific and technical community. Therefore, they must organize an award ceremony for the assigned personality. The ceremony will be intertemporal and attended by the most distinguished scientists, technologists, engineers, and mathematicians of all time. They should write the hypothetical delivery speech recognizing the trajectory or achievement of the assigned personality.
- The greatness of a scientific feat does not guarantee that it will be remembered. That is why the **temporary IOPSA agents** have the task to sneak into the press, radio, television, etc. and make informative communications that remind the general public of discoveries or people who are at risk of being forgotten. The team will produce one of these communications in a predetermined format or a format of their choice.

In order to carry out this activity, an important documentation process by the students will be necessary. The greater the maturity of the students, the greater the autonomy in the search and selection of information, and in the "staging" of the knowledge acquired.



#### **Extension:**

As **temporary IOPSA agents**, they can design many creative activities, such as bringing a scientist from the past to a current laboratory and inventing what sensations and conversations they would have with the people who work there today.

#### **Evaluation:**

The ability to select information and to integrate knowledge in the historical context will be assessed according to the following rubric:

25% OF THE Assigned Score	50% OF THE Assigned Score	75% OF THE Assigned Score	100% OF THE ASSIGNED SCORE
The information selected is incidental or of a very basic nature, without responding to a process of contrast, selection, and group reflection.	The selected information is minimal but relevant, responding to a process of contrast, selection, and group reflection.	The selected information is relevant, it responds to a reflective process of selection and contrast, but it is consigned literally and not adapted to the historical context.	The selected information is pertinent, complete, and not excessive. It has been selected through a reflective contrasting process and a critical reworking of it is consigned based on the historical context.
The staging (text, speech, etc.) is contemporary, except for some historical or geographical topic.	The staging (text, speech, etc.) is fundamentally contemporary, but includes some historical or geographic element that helps on contextualization	The staging (text, speech, etc.) is appropriate to the historical and geographical context through simple resources.	The staging (text, speech, etc.) is appropriate to the historical and geographical context, displaying a variety of creative resources.



#### 5. ACTIVITY

#### THE GALACTIC MAIL

#### Goals:

- To analyze scientific and technical advances from a comprehensive and contextualized perspective.
- To establish methods for collecting information and subsequent scientific and technical divulgation.
- To encourage curiosity and critical thinking in the search and presentation of information.
- To encourage creativity divulgating scientific and technical information

#### **Contents:**

- The outstanding information of the personality or the event chosen or honored.
- Didactic and informative resources in the exhibition of scientific knowledge (graphics, infographics, etc.).

#### **Key competencies:**

Although the activity allows the development of all the key competences, it will emphasize on «competence in linguistic communication», «social and civic competences», «digital competence», and «initiative and entrepreneurial spirit competence».

#### Timing:

2 to 3 classroom sessions (100 to 180 minutes).

#### **Materials:**

Analogical or digital resources (on or off-line) to search for information.



#### **Development:**

One or multiple personalities or events are selected, either by the teacher, or by the students collectively.

The classroom is divided into small groups or pairs and each group will be responsible for one of the personalities or events, or all groups are in charge of one event or personality but from different perspectives.

Each group of students will be, therefore, a team of reporters from **The Galactic Mail**, an interstellar transmedia news platform whose mission is to cover local news from the **SS Sector** (Solar System Sector), one of the most remote known planetary systems. In the SS Sector there is only a small inhabited planet, but its scientific advances are key in the development of some of the most important theories and technologies of the known universe. However, the specie that has developed them, the human being, is quite peculiar and what is easy to understand for them may be almost a science fiction exercise for the rest of the universe. Their mission as local reporters will be to lead the «Earth Science» section, in which through informative communications (a specific format or a format of their choice) they will explain to the rest of non-terrestrial life in the Galaxy, the scientific advances or the historical relevance of the facts and people honored.

But attention! Things that are obvious for an earthling, may not be so obvious for someone from any of the inhabited exoplanets of the solar system. Even the most obvious issue will need to be explained.

In order to carry out this activity, an important documentation process by the students will be necessary. The greater the maturity of the students, the greater the autonomy in the search and selection of information, and in the «staging» of the knowledge acquired.

#### **Extension:**

Contest in the classroom to determine which of the informative communications occupies the cover page

#### **Evaluation:**

The ability to select information and to integrate knowledge in the historical context will be assessed according to the following rubric:



25% OR THE Assigned Score	50% OR THE ASSIGNED SCORE	75% OR THE Assigned Score	100% OR THE Assigned Score
The information selected is incidental or of a very basic nature, without responding to a process of contrast, selection, and group reflection.	The selected information is minimal but relevant, responding to a process of contrast, selection, and group reflection.	The information selected is pertinent. It responds to a reflective process of selection and contrast, but it is consigned literally and not adapted to the fictitious context that arises.	The information selected is pertinent, complete, and not excessive. It has been selected through a reflective contrasting process and a critical reworking of it is consigned based on the fictitious context that arises.
The resources used in the explanation are, for the most part, inadequate, composed of a collage of previous elements.	The resources used, although adequate, are reused or taken from various sources, but without reworking or adjusting.	The resources used combine some pre-existing ones and others of their own creation.	The resources used, adequate and pertinent, are mostly self-made or derived from the adaptation of other pre-existing ones.



#### 6. OTHER ACTIVITIES

Any of the proposed activities can be enriched with the others or with small parallel activities such as:

- To find out a scientific theory that was already known at the time of the honoree and one that was not, and to comment on its implications.
- To identify, view, and comment on an audiovisual resource (video, presentation, etc.) on the chosen topic or person, individually or in a group.
- To recreate an experiment carried out by the honoree (in the case of simple experiments).
- To identify and to present in the classroom a famous quote (if applicable) of the honoree.
- To identify at least 3 people from different countries or from different times (or 3 women if we want to focus on gender equality) who work in the same field of knowledge.
- To imagine the honoree as a superhero. From that premise, to carry out a contest in the classroom to design the one who would be her arch-enemy or the supervillain she/he would fight in a supposed comic that would relate her/his adventures.

**Bonus:** To make a small comic with the adventures.



#### 7. UNIVERSAL ACCESSIBILITY GUIDELINES

In general, the recommendations that apply to work in the classroom from the perspective of inclusion and attention to diversity must be followed, adapting resources, times, and spaces according to the needs of each student. In particular, attention must be paid:

- To offer different ways of accessing information. Written or oral texts can be used, being adapted to Braille, including explanations in sign language, relief drawings, 3D designs, adaptation to pictograms, etc. Multi-sensory information is beneficial to the entire classroom. A relief design or a 3D model of a planetary system, for example, is useful not only for those students with vision difficulties or reading comprehension problems, but it also gives a broader and more complete vision to the whole class.
- To allow the tasks to involve the development of multisensory results that let all students to actively participate in their preparation and explanation. Wanda Díaz-Merced<sup>3</sup> lost her sight while she was a graduate student in Puerto Rico. She decided to use sonification to convert large data sets into sound and today she is a renowned astronomer who conducts her research using this technique. Opting for different representation modes also contributes to the advancement of science.
- To write all complementary information in a clear and simple way. You can use the <u>easy-read recommendation</u><sup>4</sup>. They are not only useful for people with reading comprehension problems (including dyslexia) but they also make texts more understandable for everyone.
- A quote attributed to Albert Einstein (and probably apocryphal) says that you don't really understand something until you are able to explain it to your grand-mother. There is no reason, therefore, to leave any student behind. Projects such as PDI Ciencia (<a href="https://www.pdiciencia.com">https://www.pdiciencia.com</a>), Science without Barriers (<a href="https://www.ucm.es/geodivulgar/asociacion">https://www.ucm.es/geodivulgar/asociacion</a>-ciencia-sin-barreras) or the Astronomy Club for the Blind (<a href="https://www.parqueexplora.org/comunidades/club-de-astronomia-para-ciegos">https://www.parqueexplora.org/comunidades/club-de-astronomia-para-ciegos</a>) are good examples of this.



## 8. Bibliography: <sup>1</sup>Innovación y Desarrollo Docente (2018). La línea del tiempo como recurso de aprendizaje. Recovered from: <a href="https://iddocente.com/linea-tiempo-recurso-aprendizaje/">https://iddocente.com/linea-tiempo-recurso-aprendizaje/</a> <sup>2</sup> ESRI España (2019). El Atlas Digital Escolar. Recovered from: https://www.esri.es/caso-de-exito/atlas-digital-escolar/ <sup>3</sup>https://es.wikipedia.org/wiki/Wanda\_D%C3%ADaz-Merced 'Guides to create easy read texts: http://blog.intef.es/cniie/wp-content/uploads/sites/3/2016/06/LecturaFácil\_1520. pdf https://sid.usal.es/idocs/F8/FD022225/elaborar\_textos\_lectura\_facil.pdf https://www.plenainclusion.org/sites/default/files/lectura-facil-metodos.pdf



- Juan de la Cierva was a Spanish engineer.
- Juan de la Cierva invented the **autogyro**.
- The **autogyro** is a means of transport that mixes an airplane and a helicopter.
- On January 9, 1923 Juan de la Cierva used the autogyro successfully for the first time.



- Ernö Rubik is a sculptor and designer.
- Ernö Rubik invented a toy called Rubik's Cube.
- The Rubik's Cube is a puzzle.
- On January 30, 1975, Ernö Rubik **filed a patent application** for the Rubik's Cube.
- Filing a patent is an official recognition that you are the inventor.



- On February 15, 2001, the sequencing of the human genome was published in *Nature*.
- Nature is a very important scientific journal.
- The **human genome** is the instructions in our cells to be able to function and to make other cells.
- The **human genome** is made of a material called DNA.



- On February 28, 1953, Francis Crick and James Watson discovered the **structure of DNA**. The **structure** is the shape of something, how it is made.
- **DNA** is the material from which the human genome is made.
- Francis Crick and James Watson were awarded a **Nobel Prize** for the discovery of the structure of DNA.
- A **Nobel Prize** is a very important award given to people who have done good and important things for the humanity.
- Rosalind Franklin was also working on the structure of DNA. Her discoveries were very important. Rosalind died in 1958.
- · No one recognized the work of Rosalind Franklin.



- On March 6, 1937, Valentina Tereshkova was born.
- Valentina Tereshkova is an engineer and **cosmonaut**.
- A cosmonaut is the person who travels into space. It is also called an astronaut.
- Valentina Tereshkova was the first woman to travel into outer space.
- Valentina Tereshkova used a spaceship called Vostok 6.



- On March 14, 1963, Pedro Duque was born.
- Pedro Duque is an engineer and cosmonaut.
- Pedro Duque is the first Spanish cosmonaut.
   Pedro Duque has traveled into space twice.
- Now Pedro Duque is the **Minister** of Science in Spain.
- **Minister** is the person responsible for an issue or area of work in the government.



- On April 3, 1934, Jane Goodall was born.
- Jane Goodall is a primatologist.
- A primatologist is the person who studies primates, that is, human beings and our closest animal relatives, such as monkeys, gorillas, chimpanzees, etc.
- Jane Goodall is famous because she studied what chimpanzee families are like.
- She also fought for the conservation of the places where they live.



- On April 21, 1838, John Muir was born.
- John Muir was a naturalist.
- A **naturalist** was the person who studied the natural environment. Today naturalists have different names because it depends on their specialty. For example, there are oceanographers, who study the seas; botanists, who study plants, and many more.
- John Muir defended many natural areas. Today those areas are protected parks.



- On May 8, 1980, the **World Health Organization** certified that there was no longer smallpox in the world.
- The **World Health Organization** is also called WHO. It is an organization concerned about health issues around the world.
- Smallpox was a very dangerous disease.
- Smallpox no longer exists thanks to vaccines.
- Vaccines are important medicines that keep us from getting a disease or being sick from diseases.



- On May 26, 1872, Trinidad Arroyo Villaverde was born.
- Trinidad Arroyo was the first female **ophthalmologist** in Spain.
- An ophthalmologist is the doctor specialized in the vision. Ophthalmologists are also called **oculists**.



- June 8, 2021 is the World Oceans Day.
- This day, and every day of the year, we must remember that the oceans are very important.
- We must take care of the oceans and keep them clean.
- The oceans produce most of the **oxygen** we breathe.
- **Oxygen** is the gas that we take from the air in the lungs and that allows us to breathe.



- On June 11, 1910, Jacques-Yves Cousteau was born.
- Jacques-Yves Cousteau was an **oceanographer** and explorer.
- An **oceanographer** is the person who studies the seas and oceans.
- Jacques-Yves Cousteau fought to defend the seas and oceans from pollution.
- · Pollution is dirt that you see and that you don't see.
- He also recorded many films and documentaries in which he shows very interesting things about the underwater world.



- On July 3, 1865, Mary A. Kingsbury was born.
- · Mary A. Kingsbury was a librarian.
- A librarian is the person who takes care of and attends libraries.
- Mary A. Kingsbury was the first person to be in charge of a school library.
- Mary A. Kinsgbury fought for the presence of libraries in all colleges and institutes.



- On July 15, 1799, the Rosetta Stone was discovered.
- The Rosetta Stone is a stone that has a text in three (3) different languages: **Hieroglyphic**, **Demotic**, and **Ancient Greek**.
- **Hieroglyphs** are the drawings that the Egyptians used to write.
- **Demotic** is an easier way to write hieroglyphs to make them look more like letters.
- Ancient Greek is the language that was spoken in Classical Greece.
- Thanks to the Rosetta Stone it was learned how to read Egyptian hieroglyphics.



- On August 11, 1858, Christiaan Eijkman was born.
- Christiaan Eijkman discovered the importance of **vitamins** in the diet.
- **Vitamins** are substances that are in certain foods and that are very important to be healthy.
- Christiaan Eijkman was awarded a **Nobel Prize** for this discovery.
- A **Nobel Prize** is a very important award given to people who have done good and important things for humanity.



- On August 17, 1737, Antoine Parmentier was born.
- Antoine Parmentier was an agronomist and nutritionist.
- An agronomist is the person who studies crops.
- A nutritionist is the person who studies what to eat and how to eat to be healthy.
- Antoine Parmentier studied the potato. He discovered that the potato was edible.
- Thanks to the work of Antoine Parmentier, potatoes were no longer prohibited.





- On September 13, 1956, the first computer that stored the information was presented.
- This computer was from the IBM company.
- Before this computer, information could only be stored outside of computers.





- On September 23, 1889, Nintendo was founded.
- When it was founded, Nintendo was a game card factory.
- Game cards are games.
- Nintendo began developing video games in 1975.
- Today Nintendo manufactures video games and consoles to play them, and it is very well known.



- On October 1, 1883, the first telephone communication test was made in Spain.
- That is, October 1, 1883 was the first time that two people in Spain spoke on the phone.



- On October 29, 1969, the first **internet** communication test was carried out.
- That is, October 29, 1969 was the first time that two people sent something to each other over the **internet** in the world.
- The Internet is a set of international communication networks.
- This internet communication trial was made in the United States.



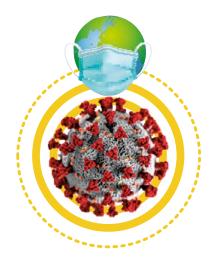
- On November 9, 1795, James Barry was born.
- James Barry was an army physician.
- James Barry was the first physician to perform a successful **cesarean** section in Africa.
- A **cesarean** section is a surgery that is done when a baby cannot be born naturally.



- •On November 15, 1873, Sara Josephine Baker was born.
- •Sara Josephine Baker was a physician.
- Sara Josephine Baker did many works that helped the children.
- Thanks to the work of Sara Josephine Baker, fewer children died of avoidable causes.
- Sara Josephine Baker published five (5) books on how to take care of children so that they are healthy.



- On December 25, 1901, Richard Shope was born.
- Richard Shope was a specialist in animal diseases.
- Richard Shope discovered influenza viruses.
- Influenza viruses are the viruses that cause the flu in animals and humans.



- On December 31, 2019, the first notice of a new illness was given.
- This new disease is caused by a coronavirus.
- **Coronaviruses** are a group of viruses that we already knew about. Most of the coronaviruses that we knew about cause colds in people.
- This new disease is different from a cold and more dangerous.
- This new disease is called Covid-19.

