

REMARKS ON THE PILOTS AT THE I.E.S VIRGEN DE LAS NIEVES IN GRANADA

PABLO CERRILLO RUIZ



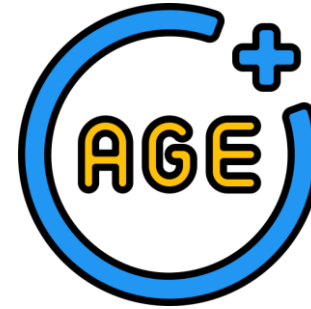
1. About the I.E.S Virgen de las Nieves



The high school is located in the northern area of Granada



The high school has more than 1300 students



The range is between 12 and 20 years



E.S.O (compulsory secondary education) 12-16 years

Bachillerato (post-compulsory education prior to university) 16-18 years

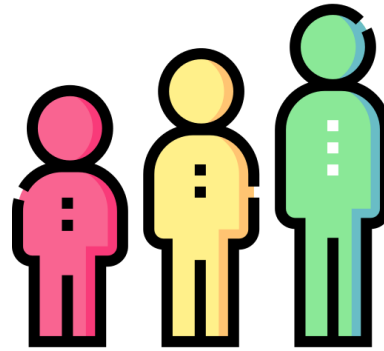
FP (vocational education) 16-18 years

FP superior (advanced vocational education) 18-20 years

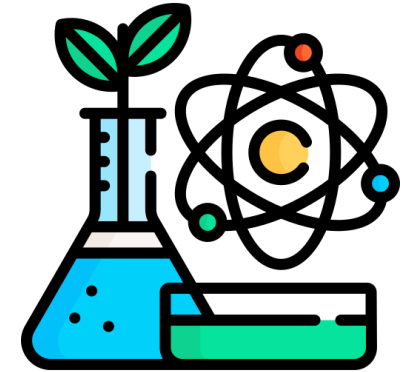
2. About the class



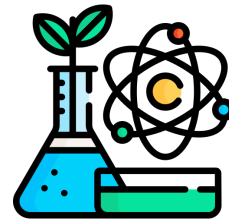
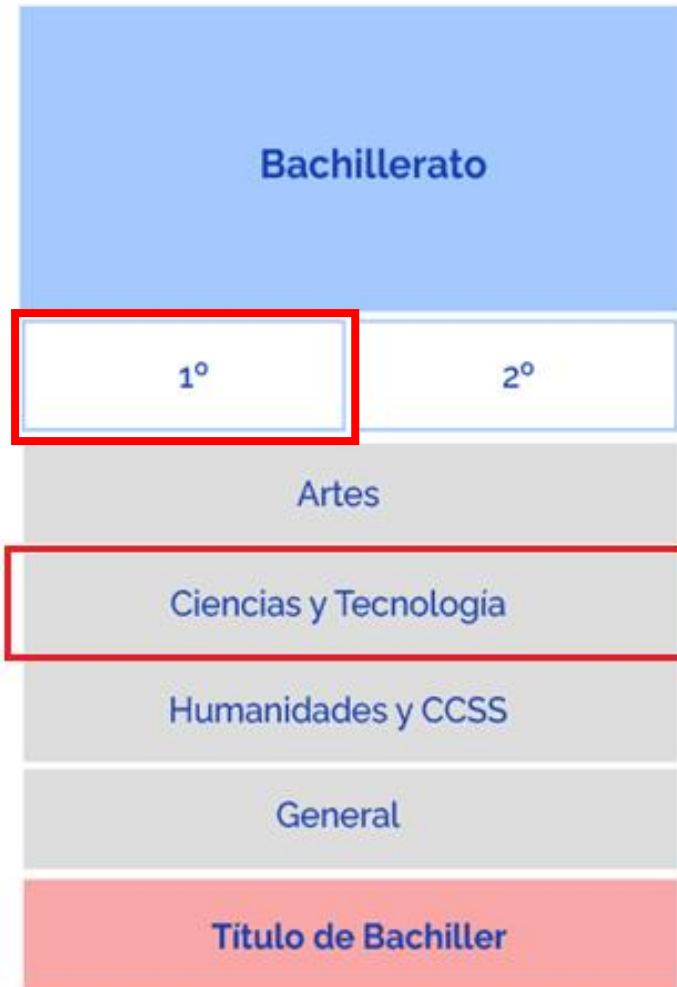
22 students



16 years (60%)
17 years (37,5%)
18 years (2,5%)



1º de Bachillerato
(Science and technology)



SCIENCE AND TECHNOLOGY

SUBJECTS

- MATHS
- SPANISH AND LITERATURE
- ENGLISH
- PHYSICS AND CHEMISTRY
- PHYSICAL EDUCATION
- PHILOSOPHY
- SECOND LANGUAGE

- BIOLOGY (op)
- INDUSTRIAL TECHNOLOGY (op)
- INFORMATICS (op)
- ANATOMY (op)
- TECHNICAL DRAWING (op)

EDUS4EL pilots in the I.E.S



Scientific-mathematical block

First Block 11/04/2023

Second Block 13/04/2023

Third Block 14/04/2023

EduS4EL © - Hoja de ejercicios

Temperaturas en agosto

Joachim Engel | Laura Martignon
 engel@ph-ludwigsburg.de | martignon@ph-ludwigsburg.de
 Universidad de Educación de Ludwigsburg, Alemania

EduS4EL © - Hoja de ejercicios

Deshielo de los glaciares

Joachim Engel | Laura Martignon
 engel@ph-ludwigsburg.de | martignon@ph-ludwigsburg.de
 Universidad de Educación de Ludwigsburg, Alemania

Los glaciares se consideran indicadores climáticos porque reaccionan sensible y rápidamente a los cambios de las condiciones climáticas. ¿Qué evolución se observa en los glaciares europeos? ¿Son los glaciares interesantes sólo para glaciólogos y esquiadores?



El deshielo de los glaciares es una de las consecuencias inmediatamente visibles del cambio climático. Incluso en fotos tomadas con pocos años de diferencia, a veces se

Fuente: [illegible]

Tiemp

El Servi
 existen
 los 20 g
 de cda

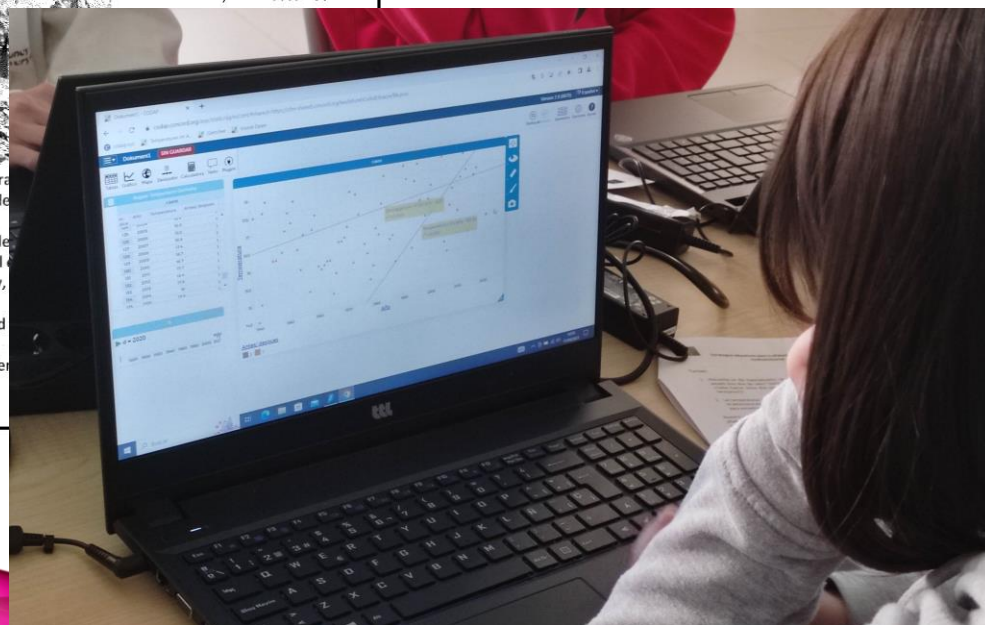
nivel del mar de 27 milímetros. En otras palabras, la cantidad de hielo que cubre los Alpes. Un de los efectos del calentamiento global.

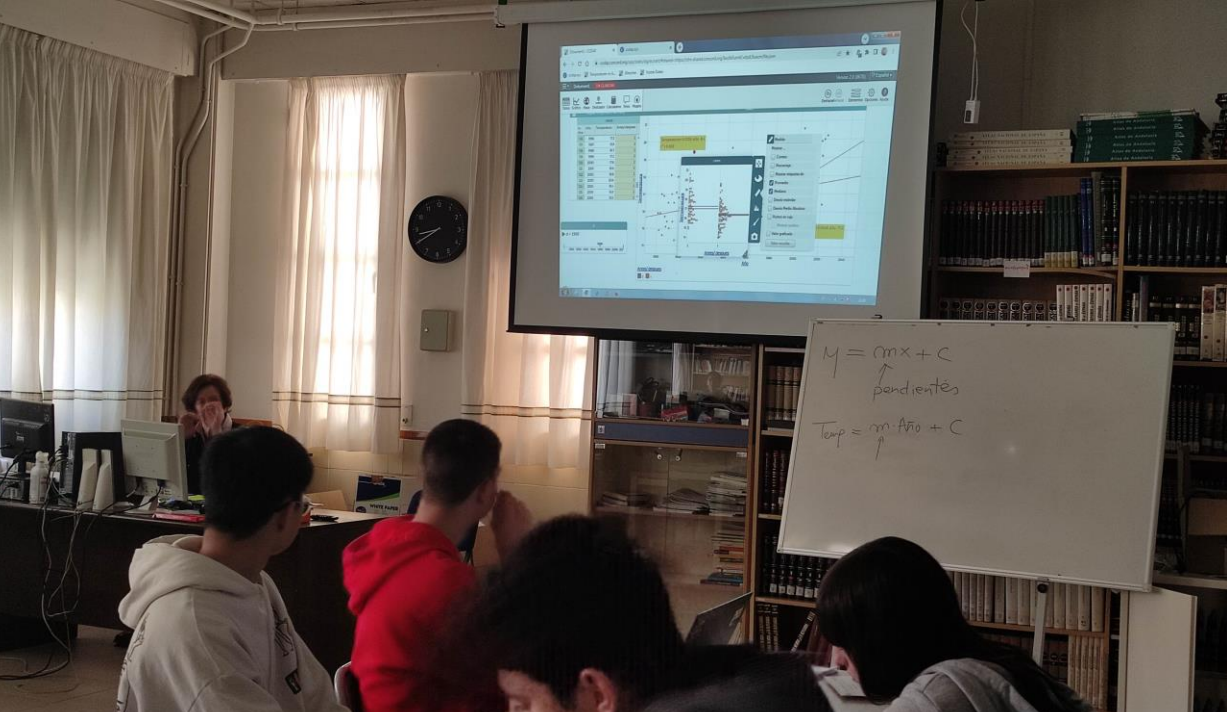
Los glaciares reaccionan con sensibilidad y rapidez a los cambios de las condiciones climáticas. Los efectos del deshielo de los glaciares sobre el medio ambiente son:

- Cambios en los sistemas hidrológicos y, por lo tanto, en las personas y los ecosistemas.
- Se prevé un gran aumento de la cantidad de sequedad en verano.
- Mayor riesgo de desprendimientos de tierra y nieve.
- aumento del nivel del mar

First part (2 hours)

- Project presentation
- Reading text about the environment.
- Use of CODAP to solve exercises





Second part (2 hours)

- Calculation of probabilities
- Risk calculation



Untitled Document **UNSAVED**

Tables Graph Map Slider Calc Text Plugins

2023d Lottery Explorer

Lotti

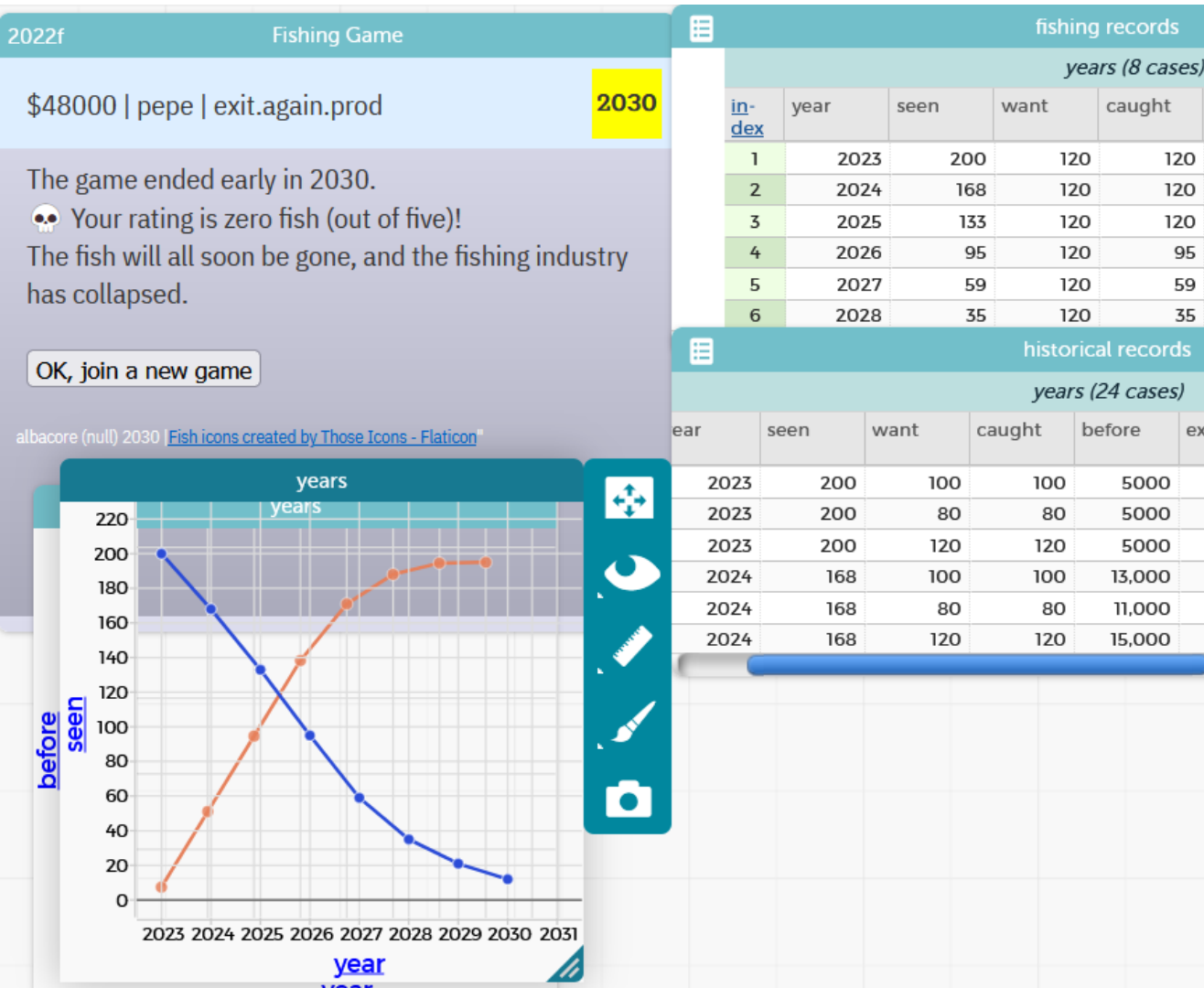
Choose a weekly allowance plan

plan A

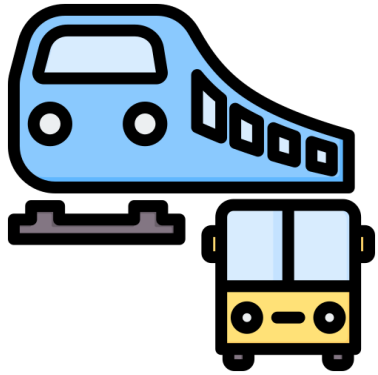
plan B

reset plan A: 15 weeks : 60€
plan B: 15 weeks : 100€

Third part (2 hours)



- Using the Mazu game to reflect on the risks of inappropriate resource consumption



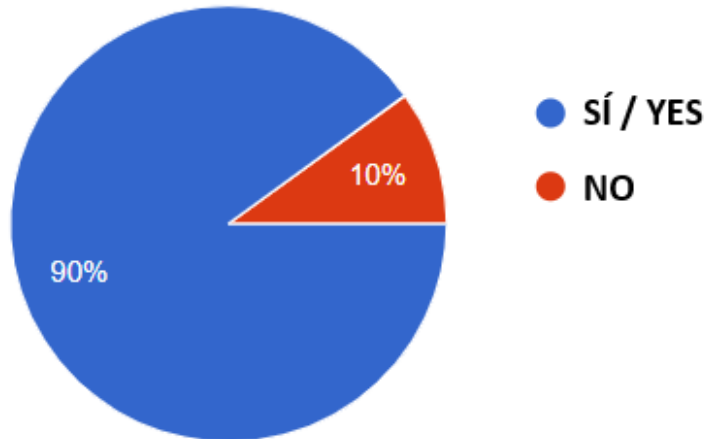
- Risks and benefits of the use of different means of transport



- Risks and benefits of using different types of energy sources

Results – knowledge about the environment

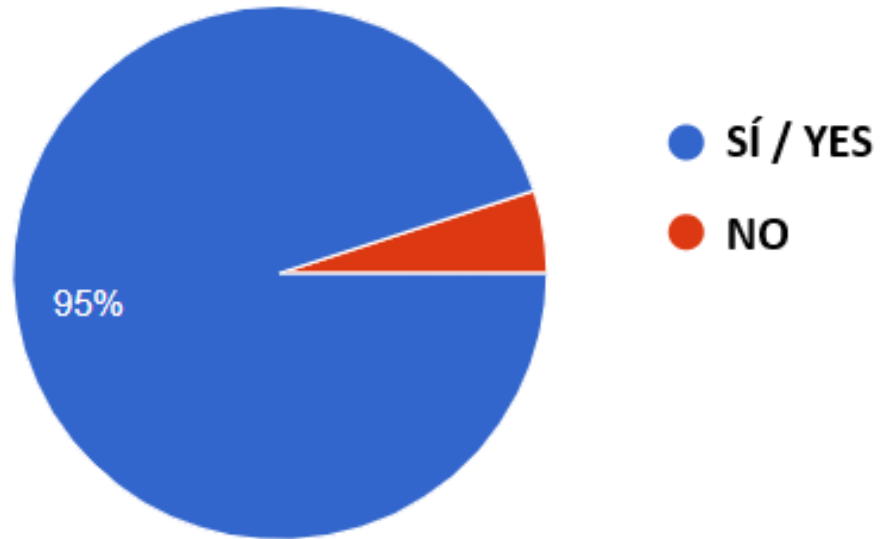
Q1: Have you learned something new about the environment after completing the classes?



Q2: What have you learned, that you did not know before, related to the environment?

- Real impact of CO2 and its consequences
- The melting of glaciers
- Evolution of CO2 over time
- About other forms of energy such as nuclear energy

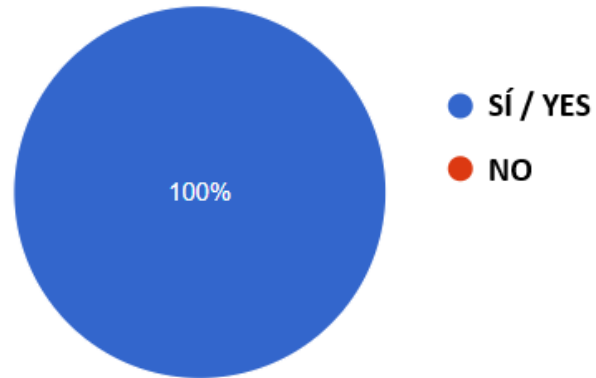
Q3: Did you like the way of conducting the classes, mixing theory and practical cases with the Codap tool?



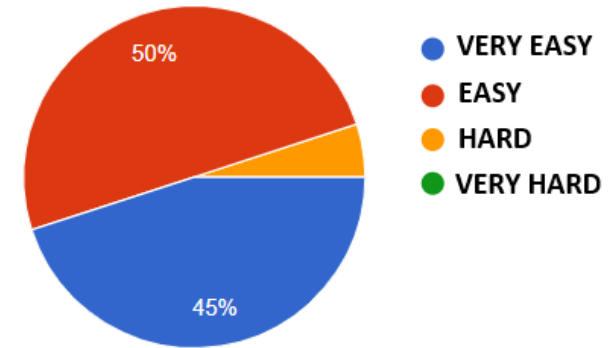
Q4: What part of the project did you like the most?

- Interactive activities in CODAP
- Use the computer to do activities
- Games in CODAP (Mazu, Lotti, etc.)

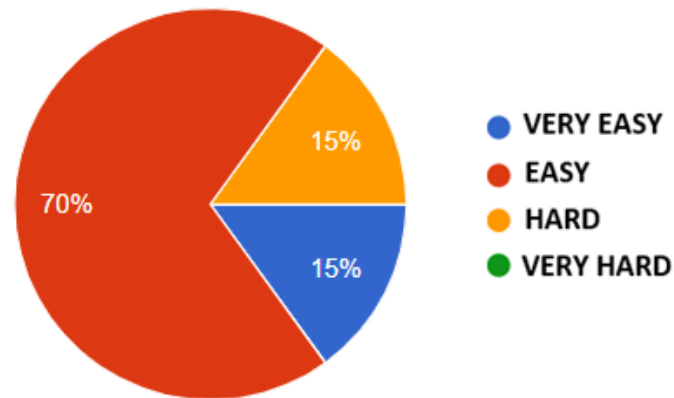
Q5: Has it helped you understand certain statistical elements such as the arithmetic mean, mode, etc?



Q6: The difficulty in generating graphs is:



Q7: In general, the difficulty of using CODAP is:



Credits

- imagen: Flaticon.com