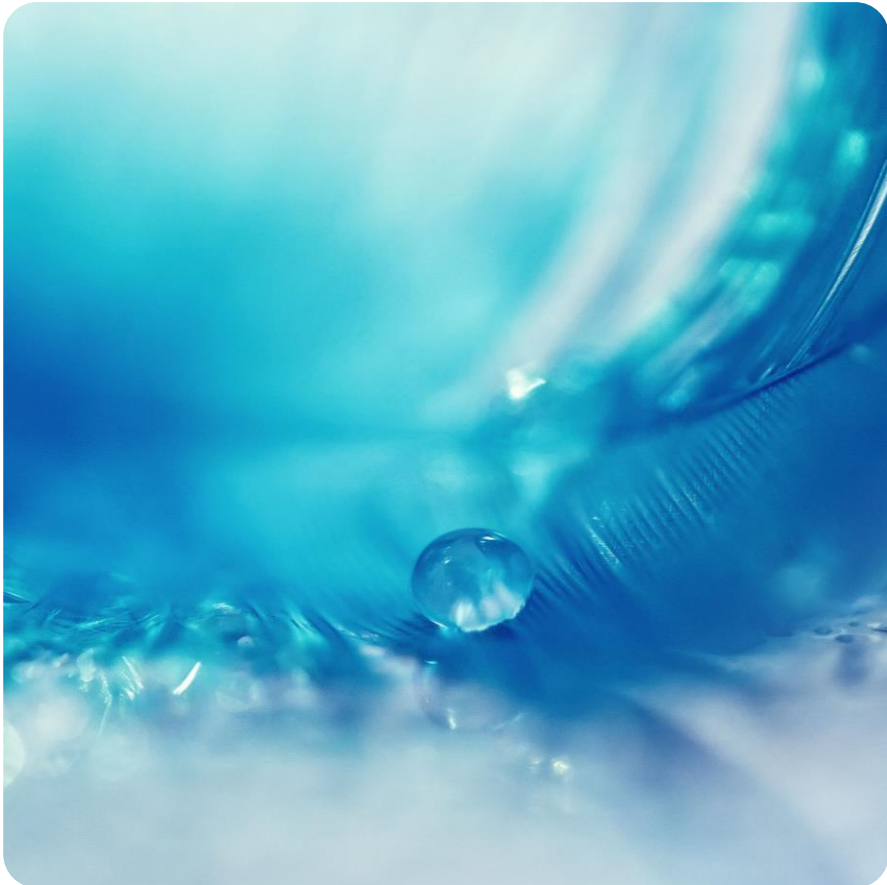


Water in a sustainable life

- **Antonia Trompeta**
- Scientix ambassador
- 13 Feb 2024
- EDUvision





EL MAR COMIENZA EN MI BARRIO



SCD SAN BLAS y SCIENTIX EU



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1

IDEAS CLAVES

Basado en la Naturaleza, situación problemática real
Interdisciplinar -STEAM
Objetivos del milenio y Agenda Urbana 2030

3

OBJETIVOS

Tomar conciencia de la importancia de los OCEANOS en la vida en la Tierra.
Crear conciencia crítica y responsabilidad ante la escasez de agua.
Descubrir la relación entre la vida saludable y un océano limpio.
Contribuir a la mejora de la biodiversidad mediante un compromiso personal respecto a residuos.

5

VISITAS Y CAMPAÑAS

VISITAS
Reserva marina
Potabilizadora, Desaladora, Embalse
El Puerto. Las Playas. Tabarca
La Marjal San Juan
Zonas degradadas - Lagunas Rabassa

CAMPAÑAS
Reforestación zonas verdes del barrio
Limpieza del barrio, monte Tossal
Playas ; islas Nueva Tabarca



2

IMPLICACION

Campañas nacionales y comunitarias "Mar Mediterráneo limpio"
Participación en "Blue Schools" Europa
Unión a la campaña portuguesa por un "Atlántico limpio"

4

FORMACIÓN

- a. Jornadas 20 y 21 octubre
 - Cambio Climático. Evidencias y retos
 - El Ciclo del agua.
 - Posidonia oceánica
 - Del Mar al plato. Consumo responsable de productos del mar
 - Biodiversidad Mar Mediterráneo
 - Basuras Marinas,
 - Sostenibilidad portuaria
- b. Seminario - Noviembre Diciembre - profesorado - Charlas
- c. Aplicación curricular - Unidad Océanos

6

CENTROS IMPLICADOS

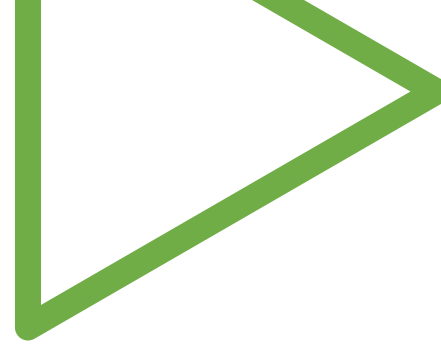
SOCIEDAD CULTURAL Y DEPORTIVA SAN BLAS
CEIP SANTO DOMINGO
CEIP SAN BLAS
CEIP RABASSA
CEIP FLORIDA
CEIP ÓSCAR ESPLÁ
IES SAN BLAS
IES 8 DE MARZO
IES FIGUERA PACHECO
AMPAS de dichos centros
ASOCIACIONES VECINALES - EN P/ .E'

Summary

- In day to day life, students have to address environmental problems.
- As part of a whole Project "The sea begins in my neighbourhood" Alacant town
- Water scary and plastic pollution are the two problems we would like to face

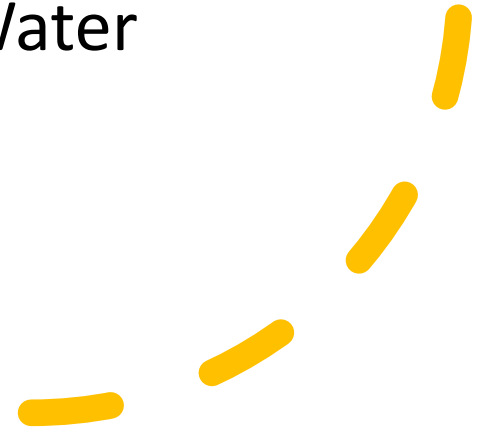
Key elements

- Subjects: Natural Science, Maths, Tech, English, Arts
- Age – 8 to 14
- Teaching time – whole year, once a week
- Students time - 1h - week
- Resources : Terra mision materials, Aqualogia Aguas de Alicante
- Aims: Importance of reducing using water and the importance of avoiding plastic bottles of water
- Trends: PBL, Collaborative learning, Steam learning
- 21st skills: Critical thinking, creativity, communication



Stem strategies

- Ibse
- Interdisciplinary
- Real world problem – water scary
- Personal implication - water assessment
- Town Connection - Water Town Service
- Outdoor experience – Collecting plastic bottles
- Neighbourhood compromise – Reduce water, reduce plastic
- Local university engagement – Water treatment information – UA
- Compromise values



Lesson plan

1. Which is water?

2. How much water do you use?

3. What type of water do you drink?

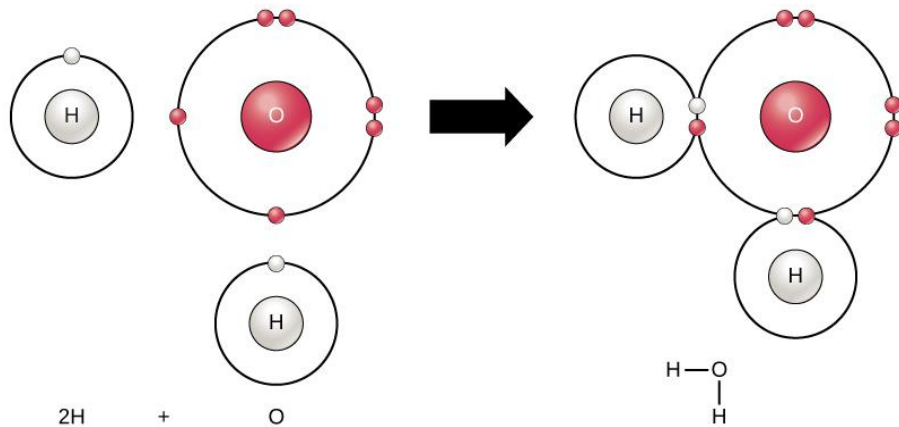
4. How many microplastics are there in bottled water?

5. What does water taste like?

6. Where does water come from? Where does it go?

7. What can you do to help?

Lesson 1



Which is water?

Properties of water:

Water is polar

Water is an excellent solvent

Water has high heat capacity

Water has high heat of vaporization

Water has cohesive and adhesive properties

Water is less dense as a solid than as a liquid



LESSON 2

- Where do you use water?
- How much water do you use?



FOOTPRINTS 101 HOW TO SAVE WATER EDUCATIONAL RESOURCES NEWS & ARTICLES

WHAT'S YOUR WATER FOOTPRINT?

It includes your tap water use and the “virtual water” used to produce your food, electricity, gas and home goods.

[Find your footprint >](#)

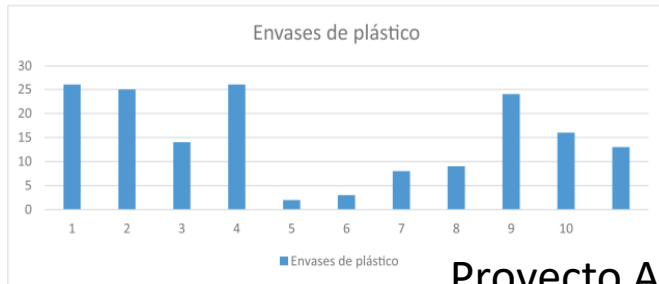
¿Cuál es su Huella Hídrica?

CALCULATE YOUR WATER FOOTPRINT

www.watercalculator.org



7. ¿Cuántas botellas de agua diferentes utilizas casa semana en el cole?



Proyecto Agua por un tubo

Después de la realización de gráficas preguntar:

- ¿Cuál es el consumo total de botellas de plástico de todo el alumnado?
- ¿Qué alumno o alumna consume mayor cantidad de botellas?
- ¿Qué alumno o alumna consume menor cantidad de botellas?
- ¿Cuál es la media de consumo de botellas?

A modo de reflexión: En caso de los alumnos con mayor consumo de botellas preguntar por qué creen que ocurre esto y cómo se puede cambiar.

La siguiente gráfica se realizará con la pregunta 9:

9. Ahora pide a tus padres que te dejen la factura del agua. Mira el consumo que habéis realizado y apúntalo aquí..... si los datos aparecen en metros cúbicos, multiplica esa cantidad por 1000 para saber los litros y escríbela aquí.....

Lesson 3

- What type of water do you drink at home, at school?

Tap water

Filtered water

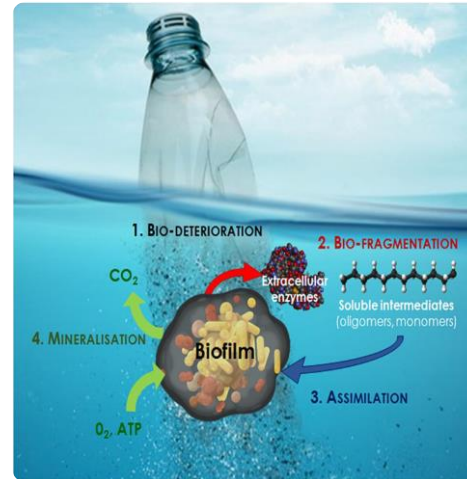
Plastic/No plastic bottled water

- How many plastic bottles do you use in a week?

Maths activity: Collecting data from mates

Proyecto Agua por un tubo - Aragón

Lesson 4



- How many microplastics are there in PLASTIC bottled water?

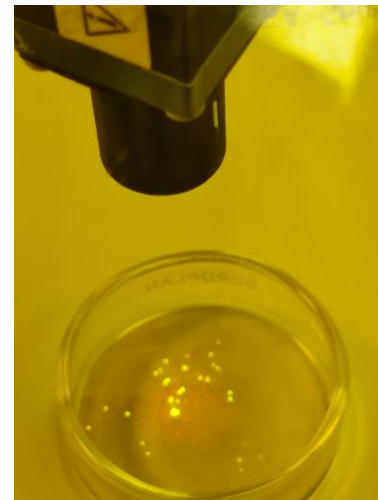
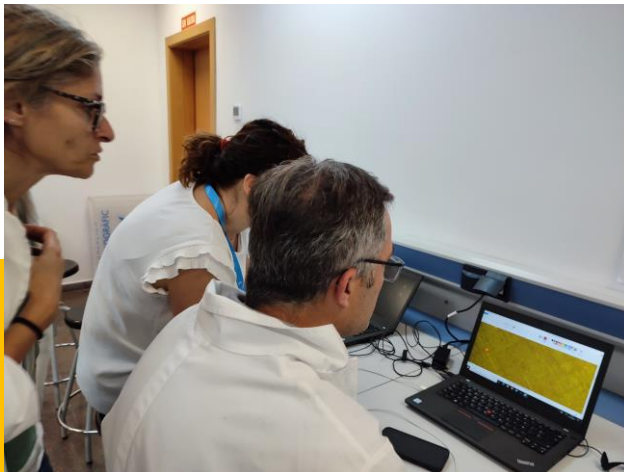
“La Universidad va al cole”
(Alacant University program with schools)

‘La UA va al cole’, nuevo programa de actividades de divulgación

El Vicerrectorado de Transferencia, Innovación y Divulgación Científica pone a disposición de centros escolares y otras entidades más de 130 talleres, conferencias y cursos de formación ciudadana a cargo de docentes e investigadores de la Universidad de Alicante

La UA va al cole

Microplastic EU Labs + schools
“Erasmus Maris” –
Oceanographic Valencia



PROGRAMAS EDUCATIVOS



Lesson 5

- What does water taste like?

Aqualogía:

Alicante Water service management
Educational workshops

(AGUAS DE ALICANTE)

Aim: Encouraging families to drink
tap water

San Blas Primary schools

Lesson 6

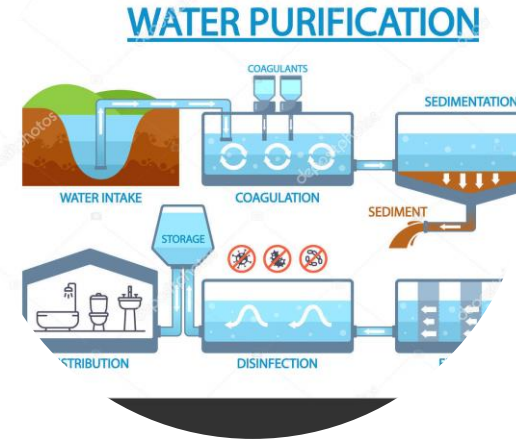
THE CYCLE OF WATER

- Where does drinking water come from?
- Where does grey water go?

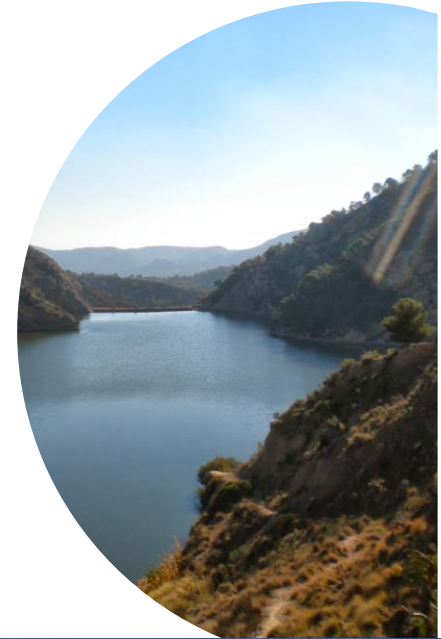
Visiting water plants, wells



Ausias March school activities



San Blas Assoc.
Tibi dam



Lesson 7

Callings for responsibility:

- Collecting plastic bottles
- Avoiding plastic bottles
- Reducing the use of water
- Helping communities with not water

Sustainable water bottle

Sustainable refillable water bottles.

They come in various sizes and colour options.

...curvy's to life bottles, in sizes 350ml to 1200ml. For big drinkers our Epic



San Blas Association CLEANING BEACHES



TOP TEN WATER SAVING TIPS





Learning products

- Creating water molecule
- Poster with solutions to save water
- Implementation of filtered water fonts in schools
- Creating figures, sculpture with plastic bottles– Christmas tree
- Class Competition - Prizes for the ones that use more refilled bottles
- Collecting money for solar modules to get wáter from wells

Xabia schools activities with plastic bottles
Christmas tree Sea art at streets



Assessment

- Quality of posters
- Quiz: properties of water
- Test of “Cycle of water”
- Use of refilled bottles
- Water consume reduction along the school year , pretest and post test water calculator.
- Compromise with ONG



Bibliography

- <https://www.onegreenbottle.com/this-is-why-you-should-never-reuse-single-use-bottles/>
- <https://www.wwf.org.uk/what-can-i-do/top-ten-water-saving-tips>
- <https://www.aguasdealicante.es/programas-educativos>
- <https://lauavaalcole.ua.es/activities>
- [file:///C:/Users/antonia/Desktop/Life-Terra-LS-Use-Water-Sparingly_P%20\(1\).Silva.REV\[1\].pdf](file:///C:/Users/antonia/Desktop/Life-Terra-LS-Use-Water-Sparingly_P%20(1).Silva.REV[1].pdf)
- <http://antoniatormpeta.com> – Oceans, Water, Plants

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