



**Gliese
667Cc**

OUTER SPACE A NEW FRONTIER

The survival of the **HUMAN RACE** depends on **YOU** and the **CREW** on board.

YOUR MISSION IS TO:

Decide on the design of the structure of your spacecraft.

Agree on what 30 people will need for 5 years in space

Compare the new planet to Earth with the possibility of relocating Earth's inhabitants.

Why do we need to leave Earth?

We need to leave Earth because the Earth is uninhabitable. It is uninhabitable because of all the pollution, overfishing, **GLOBAL** warming, animals are losing their habitats, wars, big conflicts, the government is losing money, deforestation, the money is losing its value and because we don't have any clean and safe water to drink.



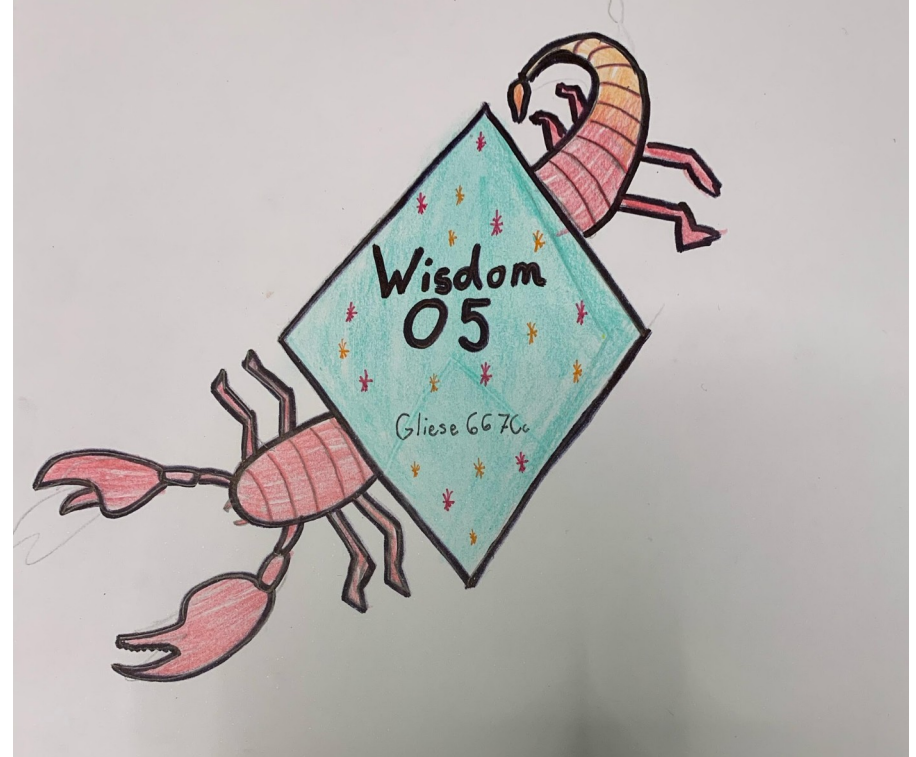
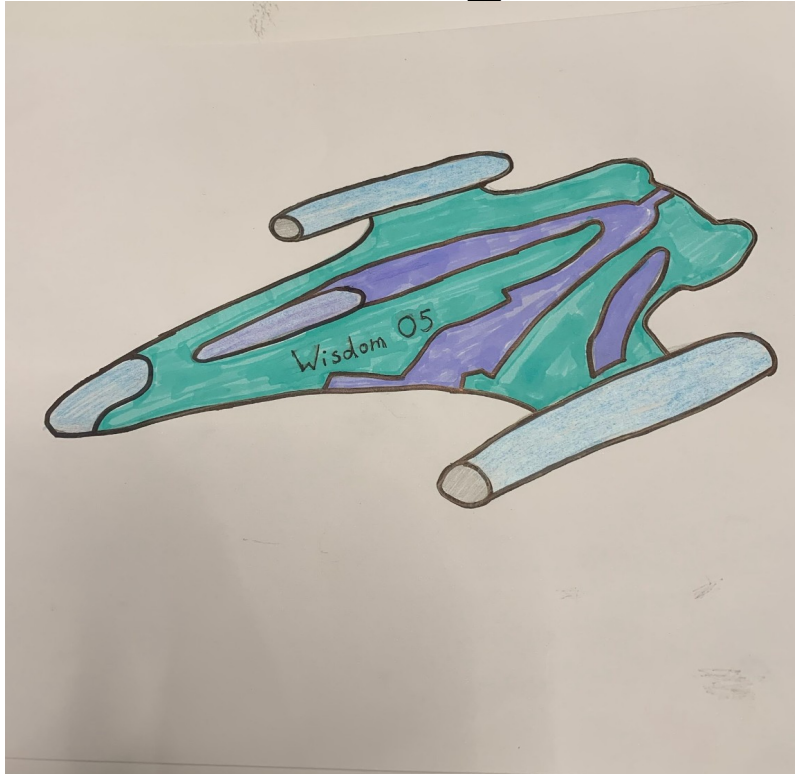
Where are we going?

We are going to an exoplanet called Gliese 667Cc. Gliese 667Cc is an exoplanet very similar to Earth and of course it is habitable. We are going to get to Gliese 667Cc in 5 years and in the spacecraft there are going to be exactly 30 people.

How are we going to get there?

We are going to get to Gliese 667Cc by a spacecraft called Wisdom 05. I designed that spacecraft by myself so it isn't copy and pasted. I named the spacecraft Wisdom 05 because Wisdom like our CORE VALUE and also that we are showing Wisdom through designing the spacecraft and learning everything about space and 05 because it will take 5 years to get there.

Design of my spacecraft & logo

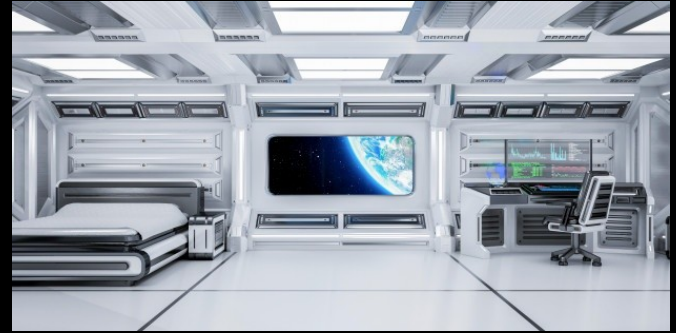


Interior design

Sleeping quarters



Sleeping quarters



Spa

Bathroom

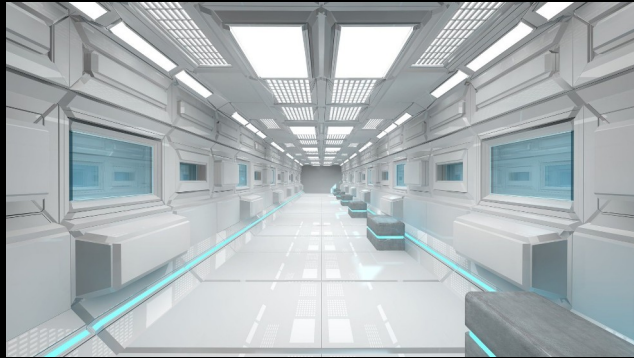


Spa

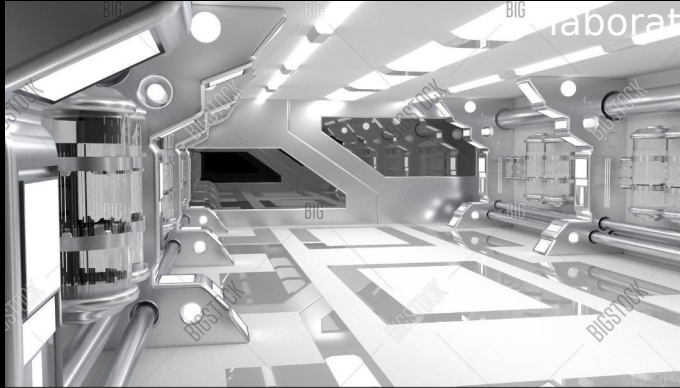


Interior

Storage capsule:
food, water, fuel



Science
laboratories



Storage capsule:
Water will be
cleaned, oxygen
will be made



Entertainment
quarters



Interior Design

Controlling room



Kitchen



Test laboratory



Reception for the Spa



Living room

Interior design

Hospital room



Gym



Engineer room



Garden



Who is going to be in the spacecraft?

List of people who are going to be in the spacecraft: Scientist, People with A.I. (artificial intelligence), Doctors, Astronauts, Psychiatrist, Trainers, Massage people, Chefs, Gardeners, People with amazing computer skills, people with navigation skills, engineers.

How will 30 people survive in the spacecraft?

What will 30 people need to survive in space?

The three most important things that every living thing needs are:
Water, Oxygen, Food

The other things that people need are: Clothes, Supplies to repair the spacecraft if something goes wrong, Doctor supplies (FIRST AID KIT/Medical help like medicine and bandaids)...

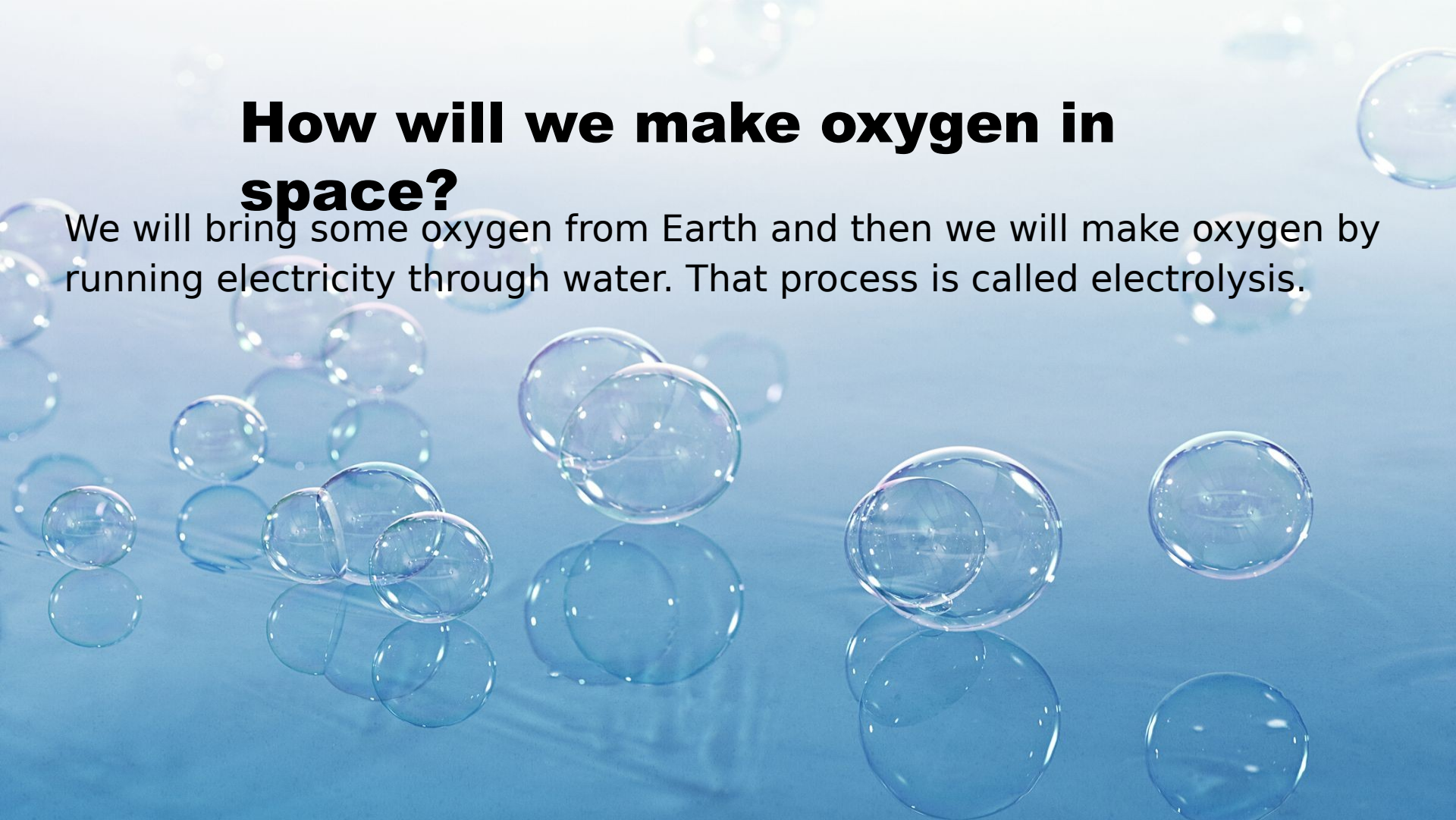
Things we need for the spacecraft: Extra water, Extra fuel, Extra food, Supplies to repair the spacecraft, Backup system, Exit capsule if something goes wrong in the spacecraft and we have to go back to Earth.

Water cycle

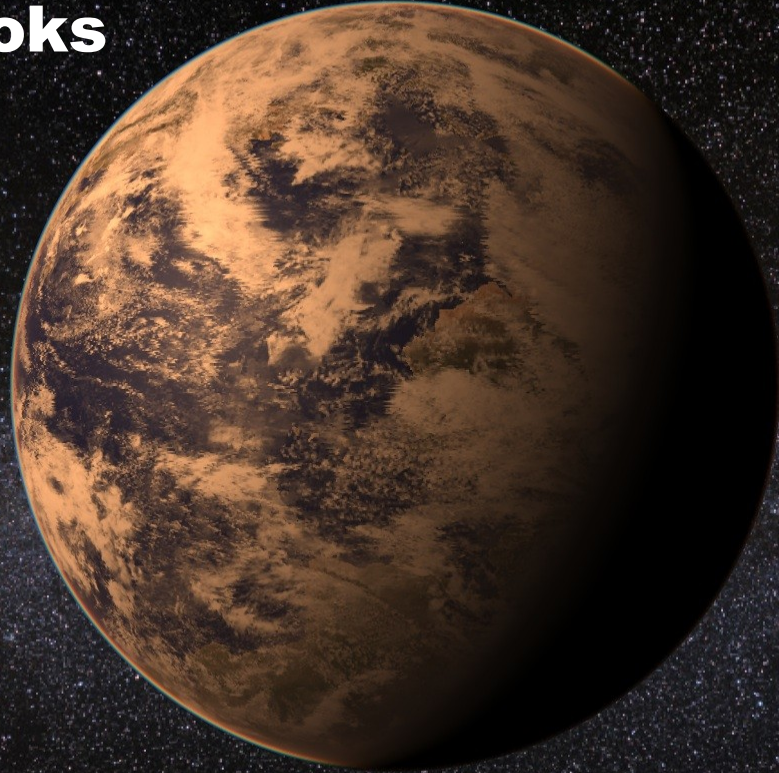
How are we going to clean water in space? In my spacecraft there is going to be one big container with all the waste water where the water will be evaporated, then the vapour will go through a very cold pipe and that is called condensation, after that there will be another container where the water will drip back and finally the water will be checked if it is good to use.

How will we make oxygen in space?

We will bring some oxygen from Earth and then we will make oxygen by running electricity through water. That process is called electrolysis.



**This is how Gliese 667Cc
looks**



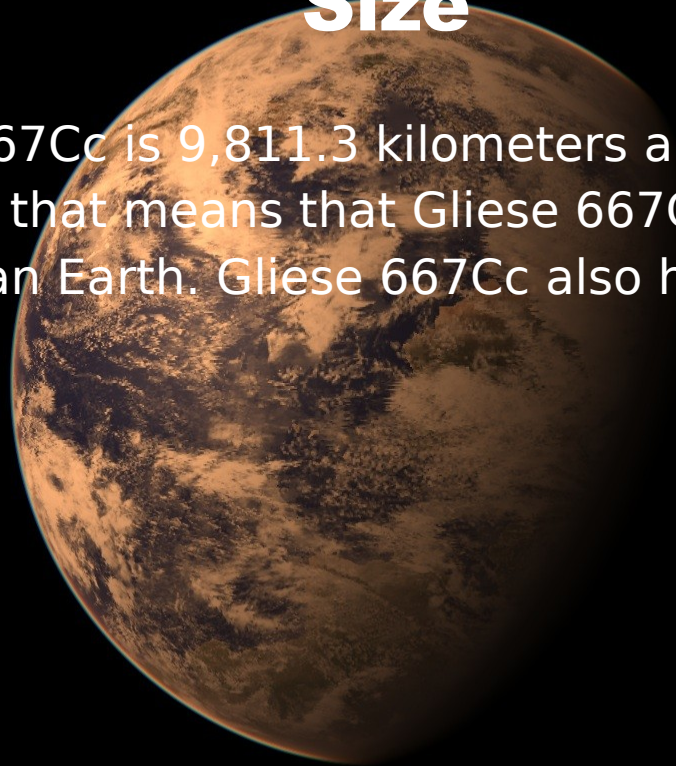
Water on Gliese 667Cc

Gliese 667Cc has a very similar atmosphere compared to Earth and it may have a surface temperature from 4.3 degrees Celsius until 30 degrees Celsius. This would allow the presence of liquid water, but scientists aren't certain yet if there is liquid water on Gliese 667Cc.

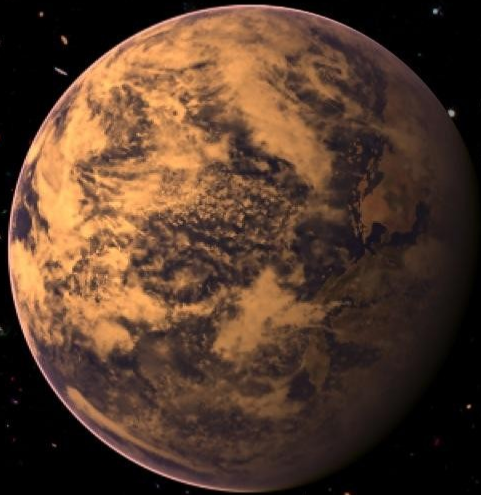
On Gliese 667Cc there is a really big probability that there is liquid water and that it also could be drinkable.

Size

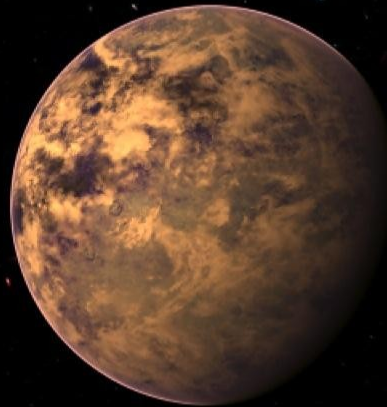
The size of Gliese 667Cc is 9,811.3 kilometers and the size of Earth is 6,371 kilometers so that means that Gliese 667Cc is by 3,440.3 kilometer bigger than Earth. Gliese 667Cc also has about 4.5 x Earth's mass.



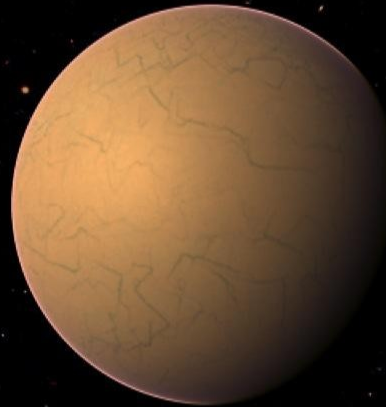
Three Potentially Habitable Worlds Around Gliese 667C



Gliese 667C c



Gliese 667C f



Gliese 667C e



Earth

Gravit

y

The gravity on Gliese 667Cc is stronger than it is on Earth because the more mass a star, planet, moon or just basically anything that you can physically touch has more gravity. If you could jump 1 meter on Earth you would jump 27 centimeters on Gliese 667Cc so that means that it is about 1.9 x Earth.

Location

Gliese 667Cc is located in the goldilocks zone. The goldilocks zone may be also called the habitable zone because if a planet is located in the goldilocks zone it must be habitable.

Gliese 667Cc orbits the red dwarf called Gliese 667C, Gliese 667C is apart of the triple star system. The system is in the constellation of Scorpius. On Gliese 667Cc Gliese 667C appears three times larger than the Sun appears on Earth.

Distance

e

Gliese 667Cc is 22.18 light years away from Earth and that is 209,834,520,022,900 kilometers so that's distance between the Earth and Gliese 667Cc. You would have to go 4,790,844,791.822466 kilometers per hour to get to Gliese 667Cc from Earth in five years.

The distance between Gliese 667Cc and its host star Gliese 667C is 18.5 million kilometers and the distance between the Sun and the Earth is 149,600,000 kilometers. Gliese 667C has only 31% of the Sun's mass.

Sunset on Gliese 667Cc





Temperature & Atmosphere

The surface temperature on Gliese 667Cc is around 4.3 degrees Celsius until 30 degrees Celsius.

The atmosphere on Gliese 667Cc is very similar to Earth and that is very good because we don't need to get used to any big differences.

1 day & 1 year

One year on Gliese 667Cc is only 28 Earth days.

The days on Gliese 667Cc could be very long because the planet is so close to its host star. It is very likely that Gliese 667Cc is tidally locked. You can also say instead of tidally locked synchronous rotation and that means that it always shows only one side to its host star.

Differences between the Earth and Gliese 667Cc

667Cc

On Gliese 667Cc there may be edible rocks, unicorns, aliens, pink grass and gold clouds.

On Gliese 667Cc there must be oxygen, drinkable water, land that we can grow crops on, land that we can grow forests and land where we can grow plants.

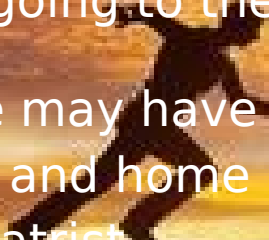
Challenge

S

There is a small probability there isn't drinkable water but we can solve it by evaporating the water, throw steam will then go through a cold pipe and it should be then drinkable.

People may have conflicts during the mission but we can solve it by them going to the psychiatrist.

People may have mental problems because they are missing their family and home but we can also solve this by them going to the psychiatrist.





Science

Math

ICT

Art

English

Topic

Links to other subjects

Math: We used math to calculate how much water does an average person use in 5 years, we calculated how many kilometers are in a light year, how many kilometers per hour do we need to go to get to our planet in 5 years, we explored gravity by making parachutes and we had to measure a lot of stuff and we calculated how many kilometers is our planet away from Earth.

English: All the research, we were reading about space, we read about a text about landing, we did our spelling about space, we did poems about space, we wrote a letter to the United Nations and we did a persuasive writing about space.



Links to other subjects

Science: the parachutes we made

Art: we designed our own planets and then created them from glue and newspaper (we blew up a balloon covered it with newspaper and glue and then at the end we painted it and made a ring).

ICT: all the research and all the slides.

Topic: we learned everything based on our topic = **SPACE**

GLOBAL GOAL

I can connect our topic space to 4 GLOBAL goals: number 3 good wealth and well being, number 5 gender equality, number 6 clean water and sanitation and number 7 affordable and clean energy/renewable energy.



**SUSTAINABLE
DEVELOPMENT GOALS**



GLOBAL GOALS

I can connect our topic space to the **GLOBAL** goal 3 good wealth and well being because we're helping people that maybe are sick because they don't have any clean water to drink or maybe there was some pollution in their food so we are helping them by finding them a new and healthier home.

I can connect our topic space to the **GLOBAL** goal 5 gender equality because we are taking men and also women to the mission so we aren't omitting anyone.



**SUSTAINABLE
DEVELOPMENT GOALS**



GLOBAL GOALS

I can connect our topic space to the **GLOBAL** goal 6 clean water and sanitation because we are going to recycle water in the spacecraft and also because people on Earth don't have any clean and safe water to drink.

I can connect our topic space to the **GLOBAL** goal 7 affordable and clean energy and we will recycle energy in space and also use solar panels to create energy.



**SUSTAINABLE
DEVELOPMENT GOALS**

Core value

There are 5 core values: **COURAGE, WISDOM, HOPE, COMPASSION, RESPONSIBILITY** and **INTEGRITY**. In our topic we used:

Wisdom - gained all of the knowledge,

Compassion - the girls sacrificed their lunch break to help Tomas with his parachute,

Responsibility - managed our time properly and we were responsible for our own slides and did them in time

Hope - we believe in our mission and in our self

What action can I take

I am inspired to take an action about our topic and I am going to make a poster and I will put it on the staircase wall so everyone can see it. It will be about saving energy and water for example. I am going to make a poster about saving water and energy because that was the main problem why do we need to leave Earth.

Saving water: not playing with the water in the bathroom and using it sensibly, turn off the water while brushing your teeth and maybe you can take shorter showers

Saving energy: you can always have a person in your class that will turn off the lights when you go to break

6 CLEAN WATER AND SANITATION



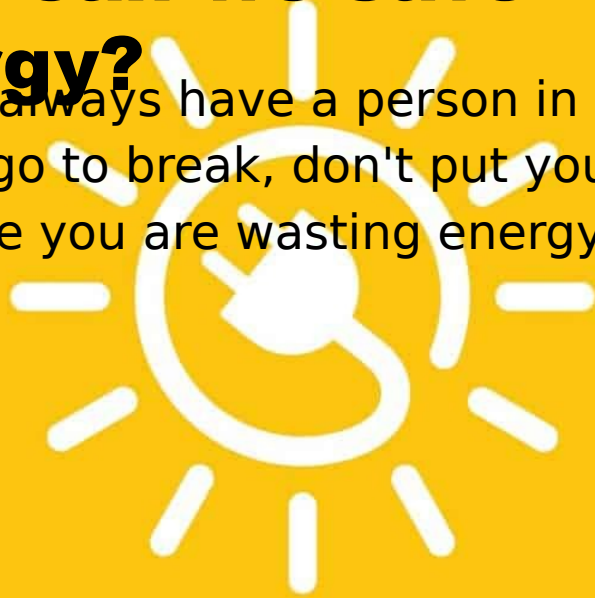
How can we save water?

Saving water: not playing with the water in the bathroom and using it sensibly, turn off the water while brushing your teeth and maybe you can take shorter showers

2030

How can we save energy?

Saving energy: you can always have a person in your class that will turn off the lights when you go to break, don't put your phone on the charger if you have 78% because you are wasting energy



EVERYONE

HAS ACCESS TO ELECTRICITY

Bibliograp hy

[Facts about Planet Gliese 667Cc](#)

host star

= how far is Gliese 667Cc from its

[Gliese 667 Cc - Wikipedia](#) = size, orbital period, temperature, location/constellation of scorio, distance from Earth, goldilocks zone

[Life on Gliese 667Cc? - Institute of Theoretical Astrophysics](#) = water

[Gliese 667Cc - Facts about Planet Gliese 667Cc | Solarsystemquick ...](#)

atmosphere, gravity

[How Far is Earth from the Sun? | Space](#) = distance between the Earth and the Sun