

MISSION X

TRAIN LIKE AN ASTRONAUT

DRESS LIKE AN ASTRONAUT



MISSION DESCRIPTION

The daily life of an astronaut in space is not all that different from our own. They eat, sleep, work, get exercise and watch films. On the International Space Station (ISS), as on Earth, you need to adapt your clothing to be as comfortable as possible when carrying out these different activities. There are, however, a few minor differences with Earth.

SUMMARY

Theme: Space

Age: 3-6

Session duration: 45 min.

Location: Classroom

Learning objectives:

- Discovering the world and space;
- Discovering types of clothing;
- Learning about the weather and dressing accordingly;
- Learning to express themselves and describe objects.



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MISSION CONTEXT

Is life in space so different from life on Earth?

Eating, sleeping, working, exercising – astronauts' daily lives are not all that different from ours. Their environment on board the ISS, on the other hand, requires a few minor adaptations.

IN SPACE

- The International Space Station is a special environment where astronauts have to adapt to carry out their daily activities. The ISS is an enclosed space with a habitable volume of 400 m³. Yes, m³, not m², because microgravity means that all the space in the station is used to store equipment, work or sleep. It never rains on the station and the temperature is maintained at 24°C. Also, as the station circles the Earth 16 times in one day, the amount of sunshine on board varies very quickly.
- The crew is generally made up of 6 astronauts who have to share different tasks over the course of the day. They do 2.5 hours of sport a day, check that the Station's facilities are working properly and carry out scientific experiments. They need to go outside the station, regularly, into the space vacuum, to carry out maintenance operations. These spacewalks can last up to 9 hours without a break and require a spacesuit.
- Astronauts will thus have different outfits to suit their activities: a spacesuit for extra-vehicular activity, sportswear, and work clothes. However, they don't need to wear shoes, as the microgravity environment means that they do not walk on the Station's floor. Also, the temperature inside the station generally allows them to work in a T-shirt.



Activities on board the ISS © NASA © ESA

ON EARTH

When they are not on a mission in the ISS, astronauts continue to train and prepare for their future missions. There's a wide range of training sessions, including wilderness survival courses, pool simulations, physical training and VR simulators.

They also have personal lives for which their outfits are similar to those we wear every day.

For more information:

- [Experiments on the ISS](#)
- [Paxi on board the ISS](#)
- [European astronaut training](#)



Sophie Adenot training in the swimming pool © ESA

MISSION PREPARATION

For the facilitator

- Print a set of "Life on board the ISS" pictures (see appendices)
- Print pictures of clothes
- Provide a board to display the pictures



Organising the activity with the students

- Divide the class into small groups or individually according to their ability to think creatively.
- Hand out to each one a picture of an astronaut and the clothes to be cut out.



Options if you need to adapt

- Present the activity directly on the board without any individual reflection phase.

MISSION SEQUENCE

Suggested step-by-step instructions for carrying out the activity



Explanation of the reference situation

In this activity, students will discover how astronauts dress. They will have the opportunity to compare their everyday clothes with those on the ISS. This activity also introduces students to the names of different items of clothing and gets them thinking about the best way to adapt their outfit to an activity and/or the weather.

Contextualisation of the situation to be given to the students

Astronauts live 400 km above our heads on board the International Space Station. They're in space, so they have to stay locked in the station to survive. But is their everyday life so different from ours? Do you think the clothes they wear are different from ours? This is what we are going to find out together.

Organisation

In a classroom, students are grouped in small groups of 3 or 4 or are assigned individually according to their age and development. You can also present this activity directly on the board.

The activity consists of three phases. The first is a discussion phase during which you can talk to the students about the clothes they wear or the type of clothes they should wear if it's raining, if they're doing sport, if they're having a nap, etc. Next, you hand out or display on the board the pictures of the astronauts on board the ISS and ask them to describe what they're wearing. Finally, you can end with a thinking phase in which the young people decide which garment corresponds to which activity. For example, you could have them cut out the clothes available in the appendix and glue the clothes corresponding to a chosen activity onto a blank sheet of paper.

ADAPTING THE MISSION

Increase Difficulty/Intensity

- Leave the students to discover the different astronaut outfits on their own.
- Let the students draw and colour an astronaut outfit themselves.
- Hand out a sheet of paper with clothes on it for cutting out.

Reduce Difficulty/Intensity

- Choose more casual clothes.
- Do the activity directly on the board.
- Distribute pre-cut clothes

Increase accessibility

- Mix the groups so that the most confident students help the others.
- Replace space objects with everyday objects.
- We'd love to hear your suggestions!

Possible extension

- Discuss life on board the ISS with the students.
- Find out about the weather and learn how to adapt their clothing.

LEARNING AREAS

- Making full use of language
- Acting, expressing themselves and understanding through artistic activity
- Exploring the world



PRINTABLE APPENDICES

➤ Life on the ISS:



CNES astronaut Philippe Perrin in the Destiny laboratory on the ISS.
© NASA



CNES astronaut Claudie Haigneré carrying out the Portapress experiment on board the ISS.
© CNES



Philippe Perrin's spacewalk. © NASA



NASA astronaut Sunita Williams keeping fit in the ISS. © NASA



New Year 2017 on board the ISS. © NASA © ESA



CNES astronaut Thomas Pesquet celebrates the European Rugby Cup final. © NASA © JAXA



Return from the ISS aboard the SpaceX Crew Dragon capsule. © NASA

➤ Clothing:



Work trousers



Spacesuit



Sports T-shirt



Sports shoes



Raincoat



Shorts



Tank top



Sock



Pyjamas



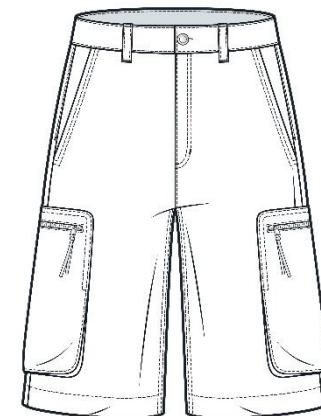
Cap



Open shoes



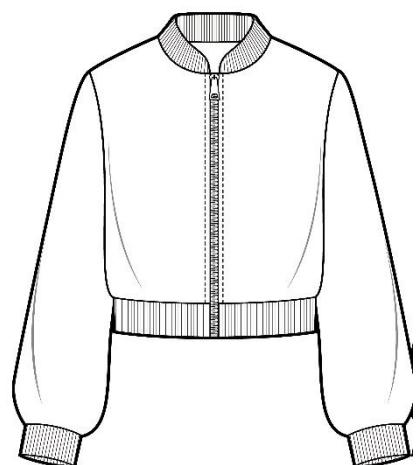
Jumper



Bermuda shorts



Polo



Jacket



Tie



Bonnet



Scarf

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