



A real spacesuit

Space technology

time

50 minutes.

learning outcomes

To:

- know that clothing protects against heat loss in the cold
- know that during a space walk, an astronaut needs to take an air supply, just like a diver

end product

- an astronaut with a spacesuit designed and crafted by the child

materials needed

- photograph of astronaut in space (Appendix)
- photograph of diver (Appendix)
- 12 toilet paper rolls, cut in half
- cotton wool
- coloured card
- glue
- paint
- scissors
- colouring pencils

Preparation

For the activity **In the rain and in the sun** you will need the photographs of the astronaut in space and the diver from the Appendix.

For the activity **Make a spacesuit** make 24 copies of the worksheet on card.



In the rain and in the sun 10 min.

Sit in a circle with the children. Ask the children what sort of weather it was when they came to school this morning. What clothes were they wearing? Was it raining? What do you wear when it rains? Why do you wear a raincoat? Explain that a raincoat keeps your clothes dry. It keeps the water out. Do the children know something that keeps them warm? Come to the conclusion together that you wear warm, thick clothing when it is cold outside. Explain that you can change your clothing according to the weather. Show the photograph of the diver. Explain that a diver has to take air with him to be able to breathe underwater. People in space cannot breathe like they do here on Earth. That's why astronauts have to take their own air supply with them. It can also be very cold in space. That's why the astronauts wear special suits. Show the photograph of the astronaut.



Explain to the children that they are going to make a spacesuit that will keep the astronaut warm and have its own air supply.



Make a spacesuit 40 min.

Ask the children what the spacesuit should look like. Explain that:

- the suit must be able to stop the astronaut losing heat;
- it must have its own air supply for the astronaut to breathe.

Give each child a card worksheet, glue, cotton wool, paint, scissors and colouring pencils. The children use the scissors to cut out the astronaut. He is already wearing a basic suit. The children use the colouring pencils and cotton wool to design a spacesuit for their astronaut.



Once again sit in a circle with the children. Encourage them to describe what their astronaut is wearing. Why did they choose this? Can their spacesuit keep the astronaut warm? For example, did they use lots of cotton wool. Does their astronaut have a helmet? Ask the children where the astronaut's air is going to come from. Give each child a half a toilet paper roll. Explain that this is the air supply for the astronaut. What method of carrying air should the astronaut use? Should it be carried in a backpack, or under the arm? Encourage each child to choose the best position for this and to explain the method used.



Discuss once again what a spacesuit needs to be able to do. What makes a spacesuit different from other clothing?



20 worksheet



