





VRIJE ASO.SCHOOL

# See you in space

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**EXPERIMENT: BIOLOGY – taste** 

# **RESEARCH QUESTION**

In space, astronauts eat more spicy food than they do on earth because they taste less in space than on earth. How come?

# **HYPOTHESIS** (Indicate the correct answer.)

In space, cause of the lack of gravity, there's a fluid shift in the body. The blood and the other fluids in the body are spread <a href="less/more">less/more</a> equally. On earth, thanks to gravity, there's <a href="less/more">less/more</a> blood in the legs.

Because in space there's *less/*more blood in the head, their faces are swollen and their noses are blocked. This feels like having a cold.

After a few days their face is less swollen because the body adapts to life in space.

On long terms the food must be spicier because in the spacestation there are a lot of smells (body odor, machines...) and the smell of the food isn't strong enough to predominate all those smells, so the food tastes less/more.



## **OPERATION OF THE EXPERIMENT**

- a) Put on a blindfold and a nose clip. Another pupil will give you something to eat. Try to guess what you're eating. Don't swallow it!
  b) Now remove the nose clip and try to guess again.
- 2 Put on a blindfold. Another pupil will give you something to eat. Try to guess what you're eating while you're smelling an onion.

## THE RESULTS / OBSERVATIONS

#### Experiment 1

- a) He thinks he knows what it is, he doesn't know sure.
- b) He knows what it is.

Experiment 2

You can taste the apple but the apple tastes less because you're smelling an onion.

## **CONCLUSION**

Watch the following clip: <a href="https://www.youtube.com/watch?v=xFgS9alvV1w">https://www.youtube.com/watch?v=xFgS9alvV1w</a>
Combine this information with the results of the experiment.

In space, astronauts eat more spicy food than they do on earth because they taste less in space than on earth. How come?

In space, it's like you have a headcold. So you taste less because your nose is blocked. Spicy food has more taste so they eat more spicy food.

### REFLECTION

Did you expect this answer?

Yes, we already saw a video of this. Without your nose, you can't taste very good.

Compare your results with the results in the other school. Did you make the same conclusion?

\(we don't have the results of the other school)

