



Teacher Overview: Space Nutrition Newsletter

Too Much...Oxygen?

<http://www.haco.jsc.nasa.gov>

Volume 4, Issue 6

This overview will help you use the contents of this issue of the newsletter in the classroom .

Facts:

{Teacher Tip: This issue of the newsletter will lead into activities on health issues such as smoking, sun exposure, and eating right.}

- ✍ Because of oxidation, apples turn brown when they are cut.
- ✍ Oxidation happens in the body when oxygen molecules react with other molecules, such as protein or fat molecules.
- ✍ Air pollution, cigarette smoke, and over exposure to sunlight are causes of oxidation in our bodies.
- ✍ Oxidation produces free radicals in our bodies that damage our healthy cells by stealing electrons from them, and that may lead to serious health problems.
- ✍ Oxidation is stopped in the body by antioxidants. Antioxidants are found naturally in the body, and they are also found in many foods.
- ✍ Natural foods with lots of color are good sources of antioxidants for our bodies.
- ✍ Space flight exposes astronauts to radiation from the sun and high oxygen exposure; both cause oxidation.
- ✍ It is very important for astronauts to eat a colorful diet to provide them with antioxidants.

Activities:

- ✍ There is a **crypto quote** at Thea's Corner that tests your comprehension of antioxidants, as well as your reasoning skills.
- ✍ Diego gives you updated information on the space program and also lets you in on a hint about dark chocolate at "**Did you know?**".
- ✍ The **Word of the Month**, absorption, can be defined from the synopsis on the first page of the upcoming newsletter.
- ✍ A **Web Challenge** is included, so take the newsletter to your computer lab!
- ✍ On the back of the newsletter is a **simple science experiment** that you can demonstrate or do with your class .
- ✍ Make an **antioxidant fruit salad** with your class. Directions are posted on the website <http://www.haco.jsc.nasa.gov> .

For the Crypto Quote, have the students write out the alphabet and then write a new alphabet above that one, using the clues given in the puzzle. For instance, since we know that B = F, then C = G, D = H, E = I, and so on. The answer is "Five a day the color way".

We have a new email address! We welcome your comments. space.nutrition.newsletter@nasa.gov