Astronaut Ice Cream Activity

Here's what you'll need:

- Astronaut Ice Cream
- Paper & Pens/Pencils
- Copies of the Food Pyramid
- Copies of the Calories Chart
- The Food Pyramid can be found on Page 5 and the Calories Chart can be found on pages 8-9 of the document located at http://www.space-explorers.com/internal/ol/3/teachers/lessons/module3/whatsforlunch.pdf

Before astronauts go on a mission, they are allowed to taste-test different kinds of foods on a special menu to see what they like best. Then, they work with a nutritionist to make sure they are getting enough calories, protein, carbohydrates, and vitamins for a balanced diet. On the Space Station the astronauts pick three different meals a day for eight days plus snacks. The menu repeats every eight days.

Food on the space station comes in several different ways:
Rehydratable, Thermostabilized, Intermediate Moisture, Natural Form, Irradiated Meat, Condiments, and Fresh Food. As an example of freeze-dried food have your class try Astronaut Ice Cream. Have your class list all of the differences between Astronaut Ice Cream and regular ice cream.

Since astronauts can't have ice cream for every meal in space, have your students create their own 3 day space menu, bearing in mind the food pyramid, the Calories Chart, and how many calories they need daily using the formulas below.

Women: 655 + (9.6 x W) + (1.7 x H) – (4.7 x A)
Men: 66 + (13.7 x W) + (5 x H) – (6.8 x A)
First you must know your weight in kilograms (W), height in centimeters (H), and your age (A).

1. Weight = divide your weight in pounds by 2.2 to get kilograms
2. Height = multiply your height in inches by 2.54 to get your height in inches.

Now calculate how many calories you have planned for yourself. Do you have too many? Too few? Make changes to your menu so you are as close to your required number as you can get while still keeping your diet balanced.