

# Space Nutrition

NAME: \_\_\_\_\_

One challenge NASA scientists face is providing a balanced, nutritious diet for astronauts. Crews on the International Space Station or even as far away as the Moon can be resupplied with food from Earth in a matter of days. When traveling to another planet, however, a crew must either pack enough food for the entire journey (and the trip home!) or find a way to produce food during the mission. With our current technology, it takes about six months to get to Mars and we will stay there for several months. How much food needs to be packed for such a trip?

**1.** Calculate how much food you eat on a typical day. Keep a record of *everything* you eat for one day and use that to calculate your total grams of food per day. (Don't include water, just food.) *HINT: Look at food labels to figure out how many grams are in a serving and what the serving size is.*

grams per day ( *g* ) = \_\_\_\_\_

**2.** At this rate, how much food would a crew of four need for a six-month one-way trip to Mars? *Hint: Assume the trip begins on January 1<sup>st</sup> and it is not a leap year.*

number of **days** ( *d* ) = \_\_\_\_\_

number of **astronauts** ( *a* ) = \_\_\_\_\_ kilograms       $g \times d \times a =$  \_\_\_\_\_

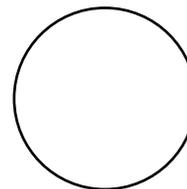
**3.** How much food would this crew need for a two-year Mars mission? \_\_\_\_\_ kilograms

**4.** According to the book "Space Nutrition," how many of your calories should come from carbohydrates, how many from fats and how many from proteins? *Hint: Read pages 46-47.* Color in the pie chart and the key to show these amounts.

calories from **carbohydrates** = \_\_\_\_\_ %

calories from **fats** = \_\_\_\_\_ %

calories from **proteins** = \_\_\_\_\_ %



carbohydrates

fats

proteins

## Space Nutrition (page 2 of 2)

5. Label each of the foods below as a good source of carbohydrates (**C**), fats (**F**) or proteins (**P**). Some foods contain more than one kind of calories. *Hint: Look at food labels to help you decide.*

\_\_\_\_\_ apple

\_\_\_\_\_ bread

\_\_\_\_\_ cheese

\_\_\_\_\_ eggs

\_\_\_\_\_ butter

\_\_\_\_\_ fish

\_\_\_\_\_ rice

\_\_\_\_\_ chicken

\_\_\_\_\_ pasta

\_\_\_\_\_ beans

\_\_\_\_\_ carrots

\_\_\_\_\_ whole milk

**BONUS:** Play the game “Space Lunch,” at NASA Kids Club.

[https://www.nasa.gov/kidsclub/flash/clubhouse/Space\\_Lunch.html](https://www.nasa.gov/kidsclub/flash/clubhouse/Space_Lunch.html)