

Space Food

1. Space food is ordinary food that has been 'dehydrated'. What does this word mean?

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2. Why do you think it is a good idea to take dehydrated food into space?

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3. How is a Space Strawberry different from a fresh strawberry?

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4. How is Space Ice Cream different from ordinary ice cream?

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How Much Water is in a Strawberry?

5A. We are going to start by weighing a Space Strawberry. What happens when you place a Space Strawberry on the weighing scales?

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Keep adding more strawberries until the scales reads 1 gram.

How many Space Strawberries are there in 1 gram?

6A. Take all of these strawberries (the ones that weighed 1 gram) and place them in a cup of water for a few seconds. Make sure they are all pushed down below the water level. Now take them out, leave them to drain on some kitchen paper, and then weigh them again.

How much do the strawberries weigh now?

Where has all this extra weight come from?

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Why is it necessary to let the strawberries drain on some kitchen paper before you weigh them?

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7A. What proportion of a strawberry is just water?

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How Much Water is in a Strawberry?

5B. We are going to start by measuring the mass of a Space Strawberry. This may not be as easy as it sounds. Write down any problems that you had in finding the mass of your Space Strawberry - and how you solved these problems.

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I estimate that the mass of a Space Strawberry is

6B. Add some Space Strawberries to the weighing scales - one at a time - until you obtain a reading of 1 gram. Now take all of these Space Strawberries and place them in a cup of water for a few seconds. Make sure they are all pushed down below the water level. Now take them out, leave them to drain on some kitchen paper, and then weigh them again.

How much do the strawberries weigh now?

Where has all this extra weight come from?

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Why is it necessary to let the strawberries drain on some kitchen paper before you weigh them?

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7B. What percentage of a strawberry is just water?

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How Much Water is in a Strawberry? (continued)

8B. We are going to compare the mass of a Space Strawberry with that of a fresh strawberry. What factor do you need to think about when choosing a fresh strawberry for this measurement?

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The mass of my fresh strawberry is

9B. Compare this result with the average mass of a Space Strawberry (which you calculated in Section 5B.) How many times more mass does the fresh strawberry have in comparison to the Space Strawberry?

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A fresh strawberry has about times more mass than a Space Strawberry.

10B. Use this result to obtain another estimate of the percentage of a strawberry that is water.

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