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Products that Conserve Resources Lab

Problem:

When evaluating different types and sizes of packaging materials, which packaging materials conserves resources the best?

Materials:

* Earth science textbook
* 3 cardboard beverage containers (1.89-L, 946-mL, 743-mL)
* Ruler
* Computer

Procedures:

1. Cut apart the three cardboard cartons and spread them out flat.
2. Measure the dimensions of the cartons using a ruler.
3. Now calculate the area of each carton and put the data and put the data in the table.

A = l x w and A = s x s

Data table:

|  |  |  |  |
| --- | --- | --- | --- |
| Container | Area of cardboard in one container | Number of cartons needed to hold 1.89L | Area of cardboard to hold 1.89L |
| 1.89L | 163.125 square inches | 1 | 100% |
| 946mL | 95.5563 square inches | 2 | 117% |
| 743mL | 73.5625 square inches | 2.5 | 113% |

Conclusions:

Based on the data above it conserves more resources to buy one large container than to buy several smaller ones. When you buy the larger container, it saves on cardboard usage by a lot. If you were to buy the juice in plastic or glass it is fully recyclable, so no matter what size you select it would be better than cardboard.