

CIÊNCIA OU ARTE? SCIENCE OR ART?

Leite UHT magro homogeneizado
Origem: Portugal

Declaração Nutricional por:	100 ml	porção (1 copo)	
		250 ml	%*
Energia	140 kJ 33 kcal	349 kJ 82 kcal	4
Lípidos dos quais saturados	0,1 g 0,06 g	0,3 g 0,2 g	<1 1
Hidratos de carbono dos quais açúcares	4,8 g 4,8 g	12 g 12 g	5 13
Proteínas	3,2 g	8 g	16
Sal	0,13 g	0,31 g	5
Cálcio (mg)	120 (15 %VRN**)	300 (37,5 %VRN**)	-

* Dose de referência para um adulto médio (8400 kJ/2000 kcal).
** Valor de Referência do Nutriente

Esta embalagem contém 4 porções de 250 ml

Condições de conservação:

Conservar à temperatura ambiente, em local fresco e seco. Após abertura, conservar no frigorífico e consumir no prazo de 4 dias.

Consumir de preferência antes de / Lote: ver no topo da embalagem.

Para qualquer observação, agradecemos que nos contacte informando o nome do produto, a data e/ou o nº de lote impresso na embalagem.

#athomewithmaat

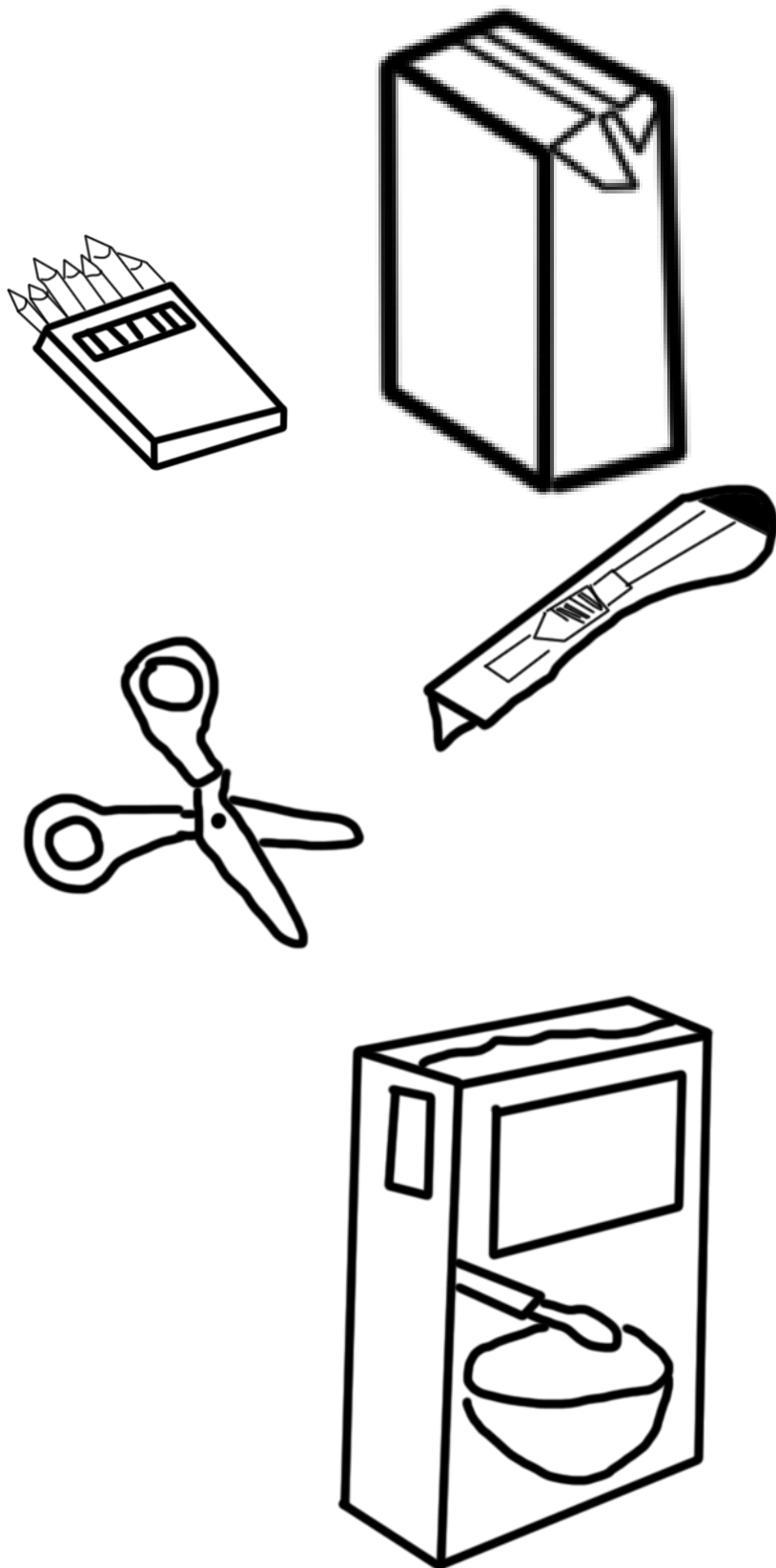


KINETIC ENERGY

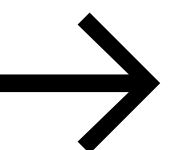
Needed materials

- Milk or juice package,
 - Pen, pencil and colouring materials,
 - Stiletto,
 - Paper or cardboard (for ex. a cereal box),
 - Water bottle.
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Instructions

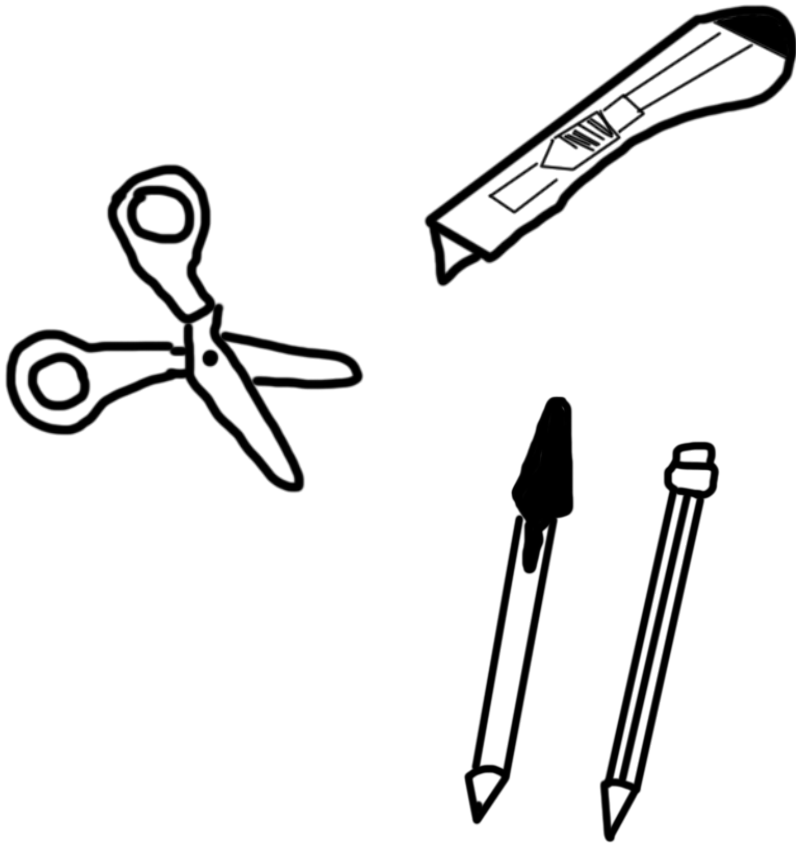


1. Take a milk carton and decorate it at your own way.
2. Measure a span from the bottom of the package. Make a line around it. With a stiletto make a hole in the line and then with a scissor cut the package.
3. Using the bottom of the package already cut, make a half circle (the size of a fingertip) on the top of the biggest sides (on the open area).
4. Now, using a cereal box and with the help of a mug or a cup, draw a circle and cut it. Draw 4 lines like the 3, 6, 9 and 12 hours of an analog clock and an X in the middle.



KINETIC ENERGY

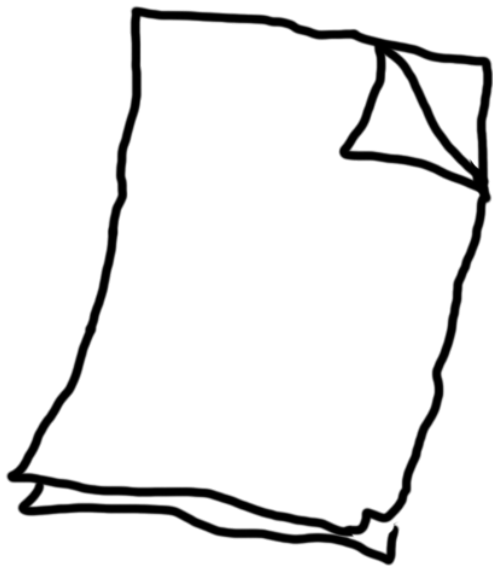
Instructions



5. With the stiletto or the scissor cut the previous marks and fold the ends of the cut parts, always from the same side.

6. Cut the X in the middle of the circle and put a pen on it (the circle should be at the middle of the pen). That's it, now we have our turbine.

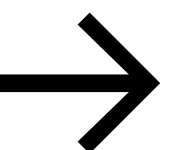
7. Put the turbine on top of our box, in the cut-out semi-circle.



8. Cut another circle on a paper sheet or on cardboard, use a mug or a glass to help you out if needed, and make a drawing. Mark a little X in the center and cut it, then put it on the pen tip.



9. With a bottle of water, pour the water above the turbine and watch your drawing moving.



KINETIC ENERGY

Kinetic energy is a type of energy present in all moving bodies. This energy can have a lot of sources, for example the wind that makes the turbines spin, and usually is transformed in electrical energy besides other purposes.

In this experiment water is the source of energy, which falls into the turbine creating motion. Here what happens is not the creation of electricity but the creation of an animated image.

By re-using disposable material, we create a structure that takes us to a period that premeditated cinema, when inventors were looking for ways to move still images creating optical toys.

Now you understand that...

1. Kinetic energy is produced by objects' motion.
2. Turbines convert the kinetic energy of falling water into mechanical energy.
3. An animation can be created using this type of process.
4. Optical toys were used in the early days of cinema evolution.
5. Re-using objects that are intended to go to the trash can be transformed into experiments full of creativity.
6. Art and science walk side by side.

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