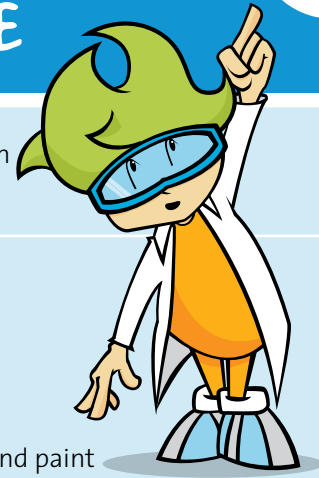




LET'S INVESTIGATE THE IMPORTANCE OF WEARING A SEAT BELT IN A MOVING VEHICLE



We will design a simple moving vehicle using an egg carton and the equipment below. Let's call it our Eggmobile.

Equipment

- 1 Empty egg carton
- 1 Sharp pencil
- 4 Plastic milk carton tops
- 2 Straws
- 1 Scissors
- Materials to decorate your Eggmobile e.g. paint brush and paint
- Blu-tac
- 2 Pieces of plasticine or 2 lego men
- 1 Elastic band

Background Information

It takes a push or a pull to start something moving or to make it stop.

To move a heavy shopping trolley along a flat surface you must push hard on its handle, but once you've got it going it will keep going even if you let the handle go. You will have to pull back on the handle to make it stop. Things like to stay still if they are not moving - or keep moving if they are already moving. This is called inertia. (See DPSM activity 'Starting and Stopping' under 'Energy and Forces').

What to do

1. Tear the top off the egg carton. The other half of the egg carton will form the body of your Eggmobile.
2. Paint the Eggmobile.
3. Using the sharp pencil make a hole in the centre of each milk carton top, big enough to push the straw through.
4. Use the sharp pencil to make holes through the front sides and the back sides of the body of the Eggmobile.
5. Slide one straw through each set of holes as shown below. These straws are the axles of the Eggmobile. Tip- Make sure the holes in the Eggmobile are big enough for the straws (*axles*) to turn freely.
6. Push the bottle tops onto the end of each straw. These bottle tops are the wheels of the Eggmobile.
7. Place the blu-tac on each side of the wheels to keep them in place. Cut off any excess straw.
8. Use your plasticine to make two passengers for your Eggmobile. Name each passenger e.g. Jack and Jill.



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9. Place Jack and Jill into the front seats of the Eggmobile.
10. Using the elastic wrap it around Jill as shown below. This is Jill's Safety Belt. Leave Jack without a Seat Belt.



11. Take your Eggmobile and race it across a smooth floor so that it bashes against a wall.

What happens?

Jack is thrown out of the Eggmobile while Jill remains safely in her seat.

Why?

When the car stopped suddenly Jack continued to move forward and ended up on the floor. However the Safety Belt held Jill safely in her seat.

What have we learned from this investigation?

Always wear your Seat Belt.