

Science Laboratory

Challenge



Do you know why we can see **motions** when we watch the projection of a fast-rolling film which is made up of a series of **individual** pictures? It is because of the **persistence** of vision. Let's Dr. X teach you how to experiment it.

Persistence of vision



Question

WHAT is persistence of vision?

Experiment

WHAT you need:

- Two pieces of **cardboard**
- A **chopstick**
- A bottle of glue
- A pen

Steps

1

Draw a bird on a piece of cardboard. Then, draw a bird cage on another piece.

2

Use the glue to **stick** the cardboard together with a chopstick sandwiched between them.

3

Roll the fan **repeatedly** with high speed and find out what happens.

4

You can see the bird is trapped in the cage. Do you know why?

You can do the experiment with your family to see what persistence of vision is.

Explanation

IMAGES stay in our brain for 0.6 seconds after we see them. Therefore, when we look at a series of individual pictures at one time, they will be connected to become motions in our minds because the image of the **previous** picture stays in our mind while we are looking at the present one.

It is interesting, isn't it?

Vocabulary

motion (n) 動作
individual (adj) 個別的

persistence (n) 持續
cardboard (n) 卡紙

chopstick (n) 筷子
stick (v) 黏貼

repeatedly (adv) 重複地
previous (adj) 先前的