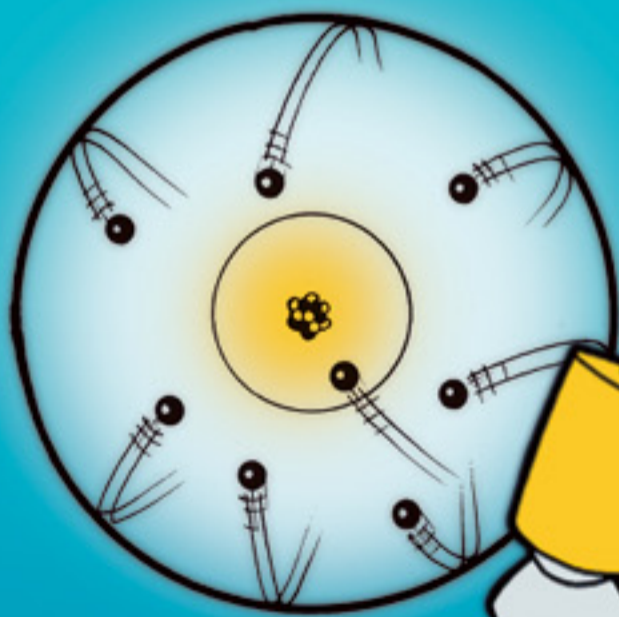


BOREDOM-BUSTER

PUZZLE ACTIVITY **BOOK OF**
SPECTACULAR
SCIENCE



OVER 100
PAGES OF
ATOMIC
ACTIVITY!

DR. JEN GREEN



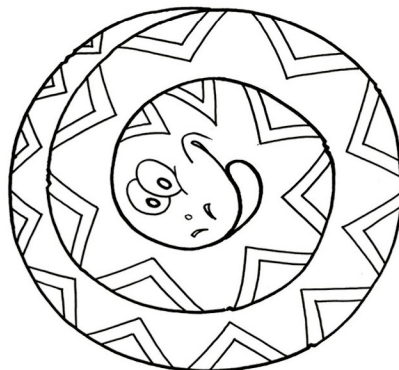
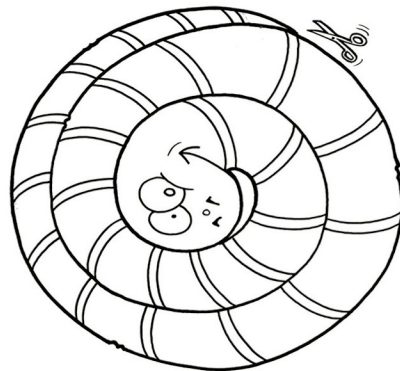
RISING AIR

When air is heated it rises. This is what makes a hot-air balloon rise. Air spirals upwards in currents called thermals where the sun heats the air near the ground.

This experiment uses the warm air from a radiator.



Colour the snakes, then cut them out to make a spiral. Gently pull the head and tail apart. Use scissors to make a hole in the nose, and attach a string. Hang the snakes over a radiator and watch them spin around!



ON THE LEVEL

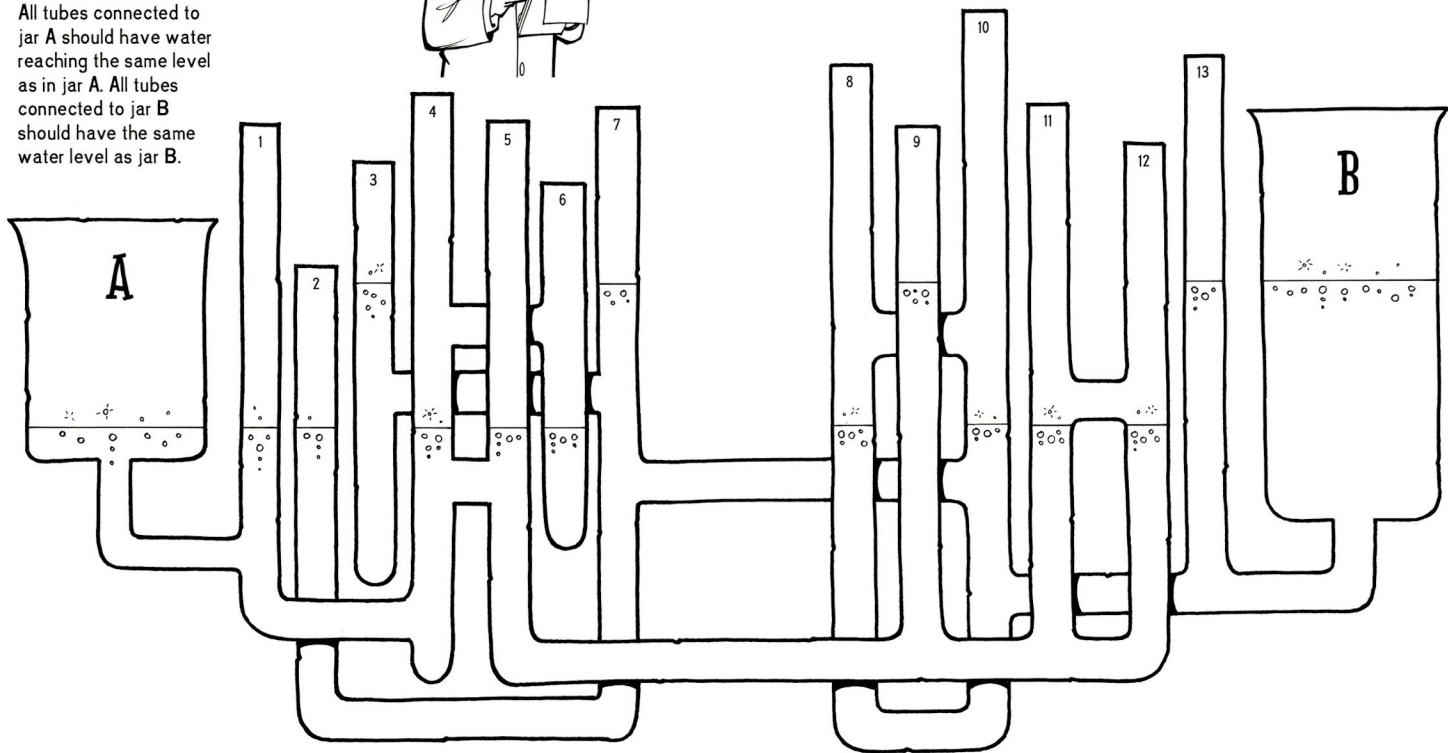
If you pour water into a series of tubes that are connected together, the water finds the same level in all the tubes.

All tubes connected to jar A should have water reaching the same level as in jar A. All tubes connected to jar B should have the same water level as jar B.



But some of these tubes have been drawn wrongly! Can you find which tubes contain water at the wrong level?

HINT:
It will help if you colour all the tubes connected to Jar A red, and all the tubes connected to jar B blue.



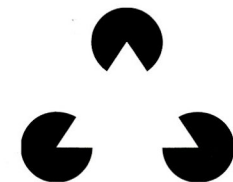
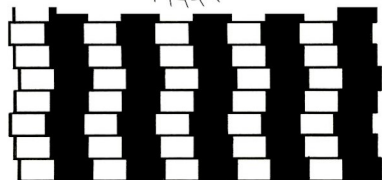
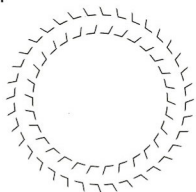
TRICKS WITH LIGHT

Optical illusions are tricks that fool the eye. They make you see something that's not really there.

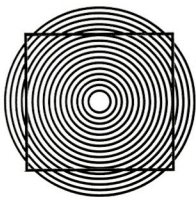
Hold the book up in front of you and tilt it to the left or right. What happens to the curved lines in the drawing below?



Stare very hard at the picture below, then slowly move it towards and away from you. What happens?



Can you see a triangle here?
There isn't one in the drawing!

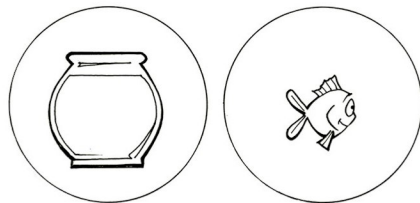


Are the sides of the square straight or curved? Check with a ruler.

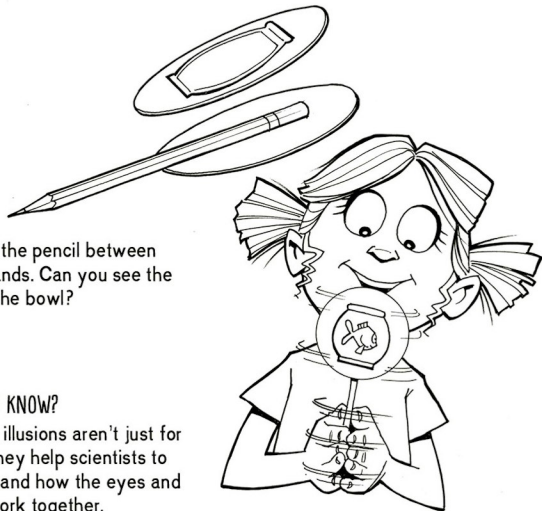
Are the horizontal lines level or slanting?

PUT THE FISH IN THE BOWL

1. Trace the fish and bowl onto card. Colour them in, then cut out the two circles.



2. Tape the two pictures to a pencil, so both pictures face out.



3. Spin the pencil between your hands. Can you see the fish in the bowl?

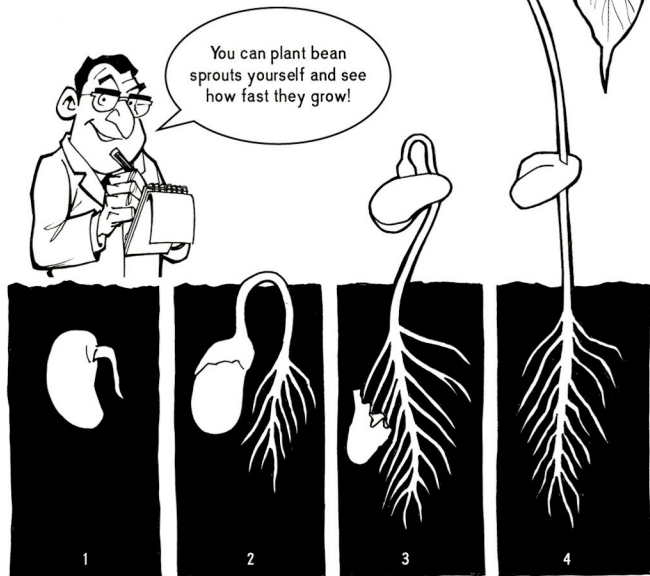
DID YOU KNOW?

Optical illusions aren't just for fun – they help scientists to understand how the eyes and brain work together.

GERMINATION

Most plants grow from seeds. If you plant a seed in a moist, sunny place it will start to germinate (sprout).

The tough seed case splits open (1).
First, a little root grows downwards (2),
so the plant can take in water.
Then, a little green shoot begins to grow
upwards towards the sky (3).
The new plant spreads its leaves in the light (4).



BEANSPROUT MAZE

Help the new shoot find its way through the soil towards the light.

