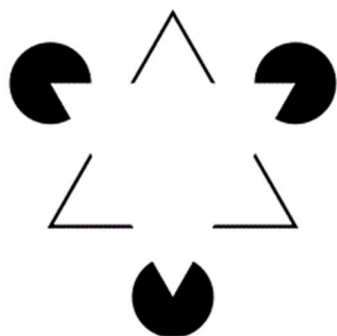


BRAIN PROCESSING

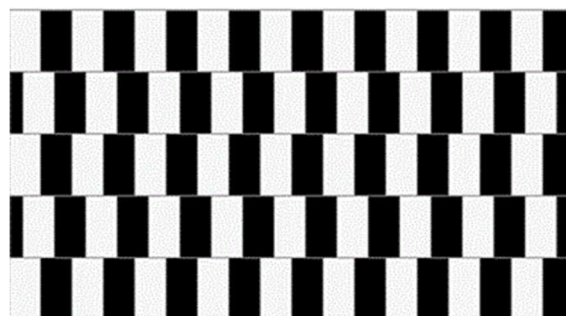
Our amazing brains have different areas that all work together for us to function properly. One of these functions is to take information from the world around us and allow us to interpret it.

[Watch the Beginners Guide to the Brain video to learn about different parts of the brain.](#)

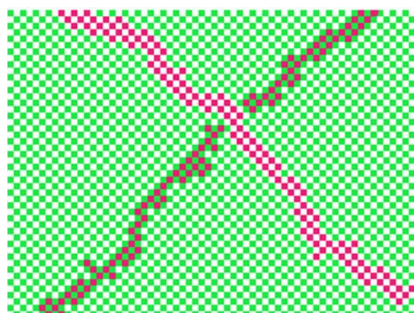
Look at these optical illusions. What can you see? You might think you see something different to other people looking at it.



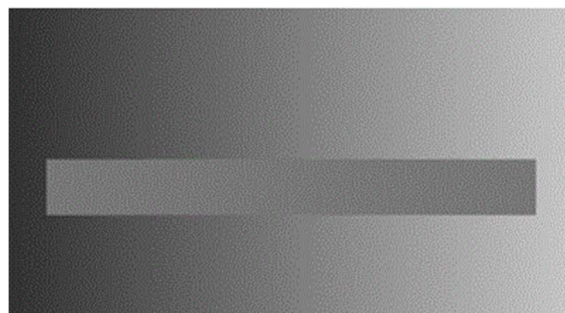
1. How many triangles do you see?



2. Are the lines sloping or parallel?



3. How many colours are in there?



4. Which side of the picture is darker?

1. There are no triangles. There are only 3 V shapes and 3 pac man shapes. 2. All the lines are parallel; the black and white blocks are not aligned which fools your brain in to thinking they are sloping. 3. One shade of green and one shade of red. 4. It is the same shade all along.



LANCASHIRE SCIENCE FESTIVAL



The 'Stroop Effect' is a famous psychology experiment named after J Ridley Stroop who discovered the strange phenomenon in the 1930s. You need to read and say the **colours** of the words NOT what the word actually says.

There are two sets of words. Time how long it takes you to read each set out loud.

Set 1

RED	GREEN	BLUE	YELLOW	PINK	Time:
ORANGE	BLUE	GREEN	BLUE	BLACK	
GREEN	YELLOW	ORANGE	BLUE	BLACK	
BROWN	RED	BLUE	YELLOW	GREEN	
PINK	YELLOW	GREEN	BLUE	RED	

Set 2

RED	GREEN	BLUE	YELLOW	PINK	Time:
ORANGE	BLUE	GREEN	BLUE	BLACK	
GREEN	YELLOW	ORANGE	BLUE	BLACK	
BROWN	RED	BLUE	YELLOW	GREEN	
PINK	YELLOW	GREEN	BLUE	RED	

- Which set did you record your shortest time for?
- Why do you think this was?

The words themselves have a strong influence over your ability to say the colour. The interference between the different information (what the words say and the colour of the words) your brain receives causes a problem. There are two theories that may explain the Stroop effect:

Speed of Processing Theory: the interference occurs because words are read faster than colors are named.

Selective Attention Theory: the interference occurs because naming colors requires more attention than reading words.

