

Agent mission log

Mission 2: Colour mixer - subtractive colour with CMY films

MISSION BRIEF

Agent, take the three colour films - cyan, magenta and yellow. Predict what happens when you stack them, then test it.

1 HYPOTHESIS - FILL THIS IN BEFORE YOU TEST

Combination	I predict
Yellow + magenta	
Yellow + cyan	
Magenta + cyan	
All three stacked	

2 TEST - HOLD EACH COMBINATION UP TO A WHITE WALL OR LAMP

Combination	What actually happened
Yellow + magenta	
Yellow + cyan	
Magenta + cyan	
All three stacked	

3 PIXEL'S QUESTION

Which colours DISAPPEARED as you added each film?

4 DR LUMA'S SCIENCE SECRET

White light contains every colour. A coloured film is a filter - it blocks some colours and lets others through. Yellow blocks blue. Magenta blocks green. Cyan blocks red. Stack all three and you block nearly everything, so you get near-black. This is SUBTRACTIVE colour mixing - and it is exactly why printers use cyan, magenta, yellow and black ink.

5 REAL-LIFE CONNECT

Find a printer at home or school. What colours are its ink cartridges?

Difficulty: 

Fun: 

SIGNED BY AGENT

Name:

 Date:
