

# Why did the flower change its colour?

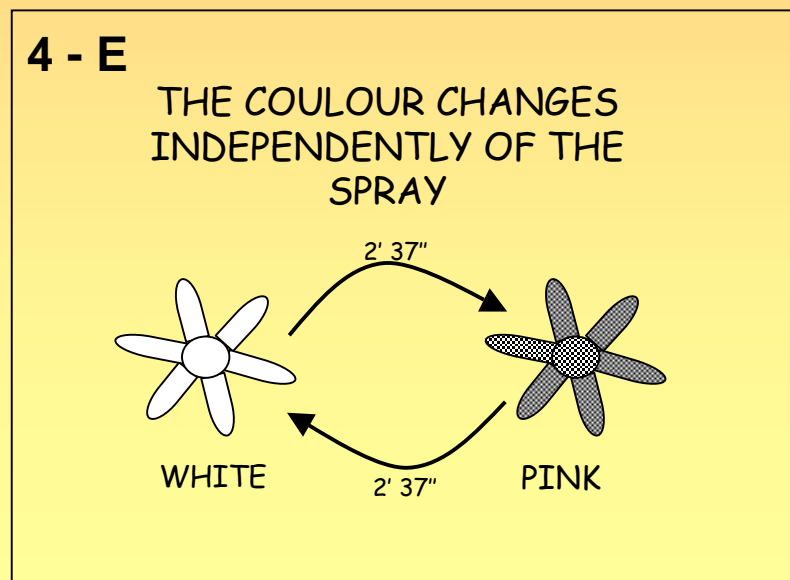
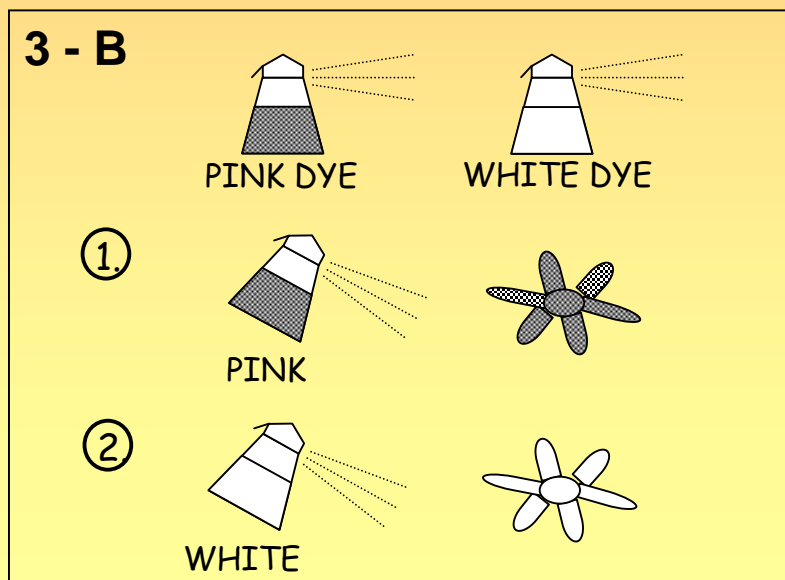
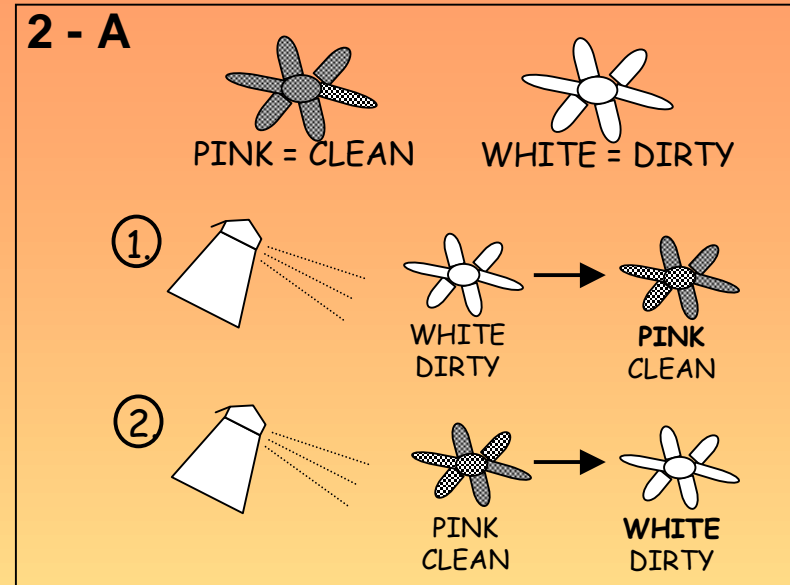
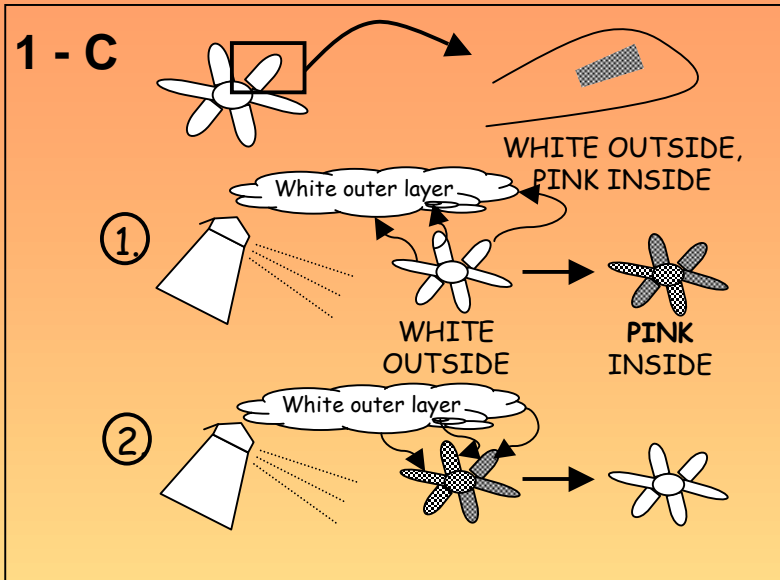


First spray

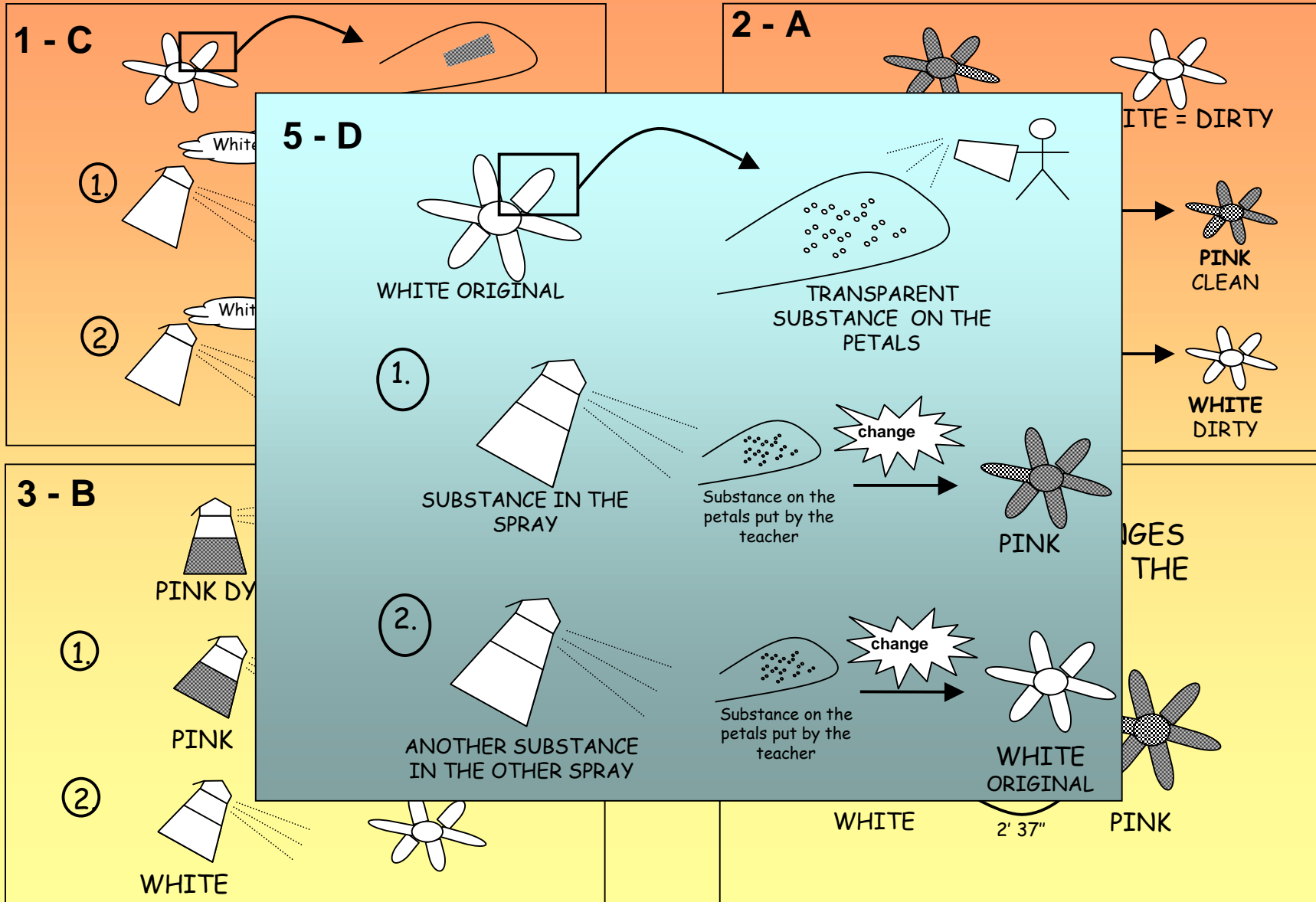


Second spray

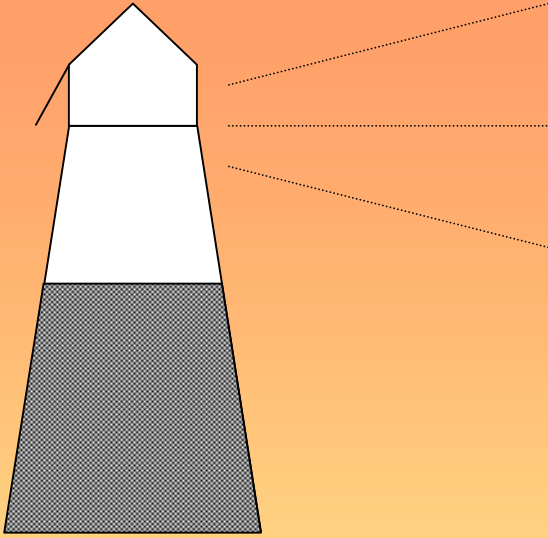
# FIVE HYPOTHESES



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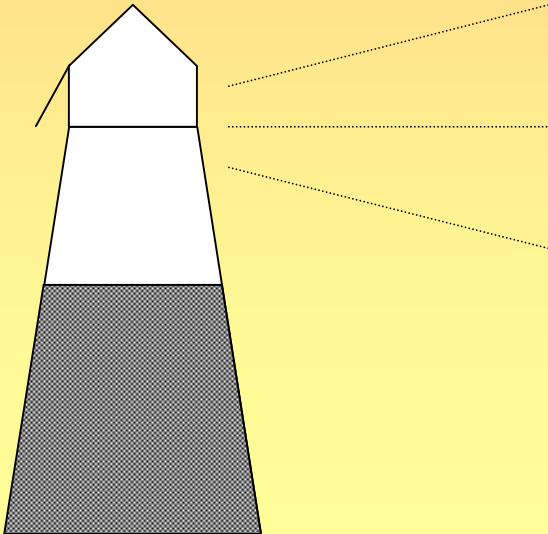
- Substance in the first spray:



**ALKALI**

(bleach)

- Substance in the second spray:



**ACID**

(vinegar)

- **Transparent substance on the petals:**



- **Transparent substance on the petals:**



## PHENOLPHTHALEIN



Phenolphthalein is an

**INDICATOR**

**INDICATORS** are substances that have different colours with acids and with alkalis.

# phenolphthalein



acid

alkali

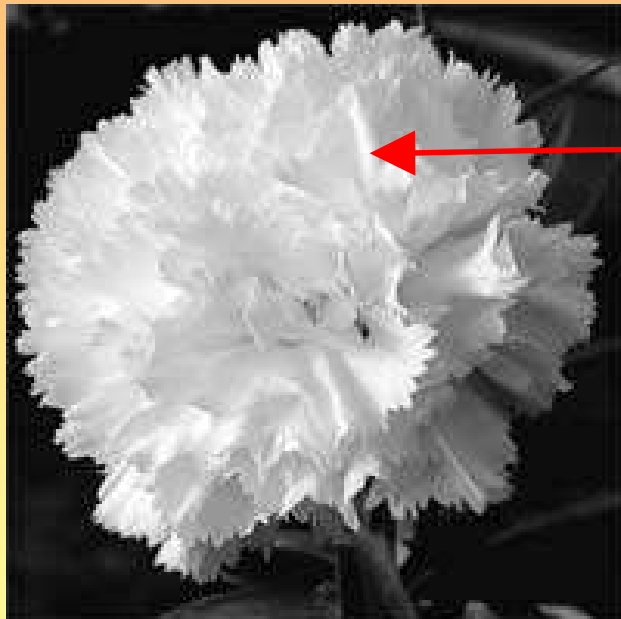
There are lots of **indicators**:

	ACID	ALKALI
• PHENOLPHTHALEIN		
• LITMUS		
• METHYL ORANGE		
• BROMOTHYMOLO BLUE		



# What happened then?

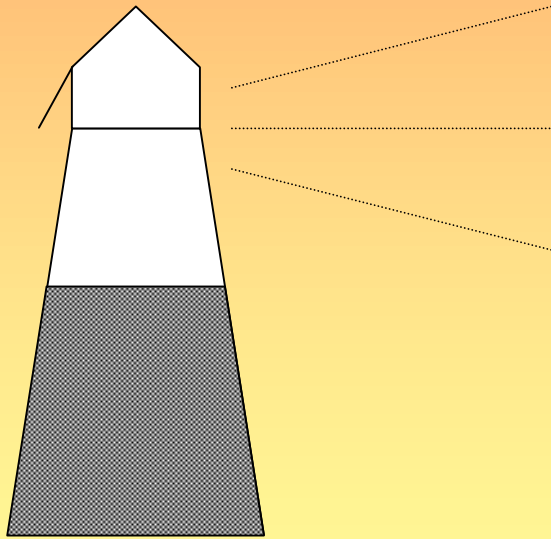
- On the petals of the flower, the teacher had previously put phenolphthalein, which is an **INDICATOR**.



**Phenolphthalein,  
an indicator.**

# What happened then?

- In the first spray there was an **ALKALI** (bleach). Phenolphthalein turns pink with alkalis, that's why the flower turned pink.



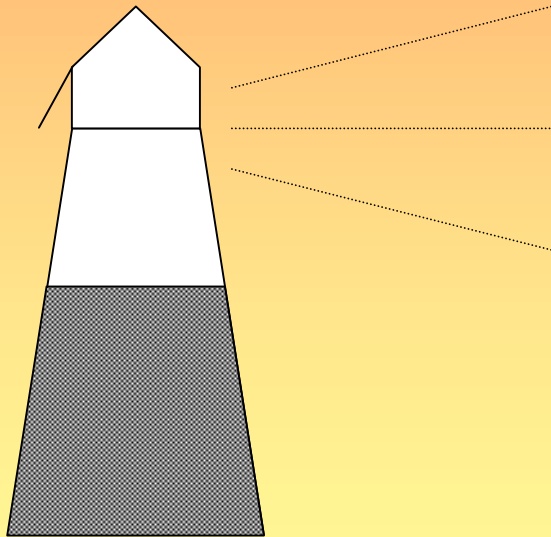
**Alkali**  
**(bleach)**



Phenolphthalein turned **pink**.  
The flower turned **pink**.

# What happened then?

- In the second spray there was an **ACID** (vinegar). Phenolphthalein turns transparent with acids, that's why the flower turned back to its original colour.



**Acid**  
**(vinegar)**



Phenolphthalein turned **transparent**.

The flower turned back to its **original colour**.