

Cut Flower Preservation Practical



Brought to you in partnership with
CQUniversity Australia and Rabobank



Contents

What solution preserves flowers the longest?	3
Option 1 - Primary School Observations	5
Option 2 - High school observations	6
Practical alternatives	9
More resources	9

What solution preserves flowers the longest?

Find some flowers (flowering plant or supermarket flowers) and add one stem to a small jar of water. Add an equal volume of water to each jar. Add your preservation agents such as below and label each jar.



Detergent



Sugar



Bleach



Lemon juice



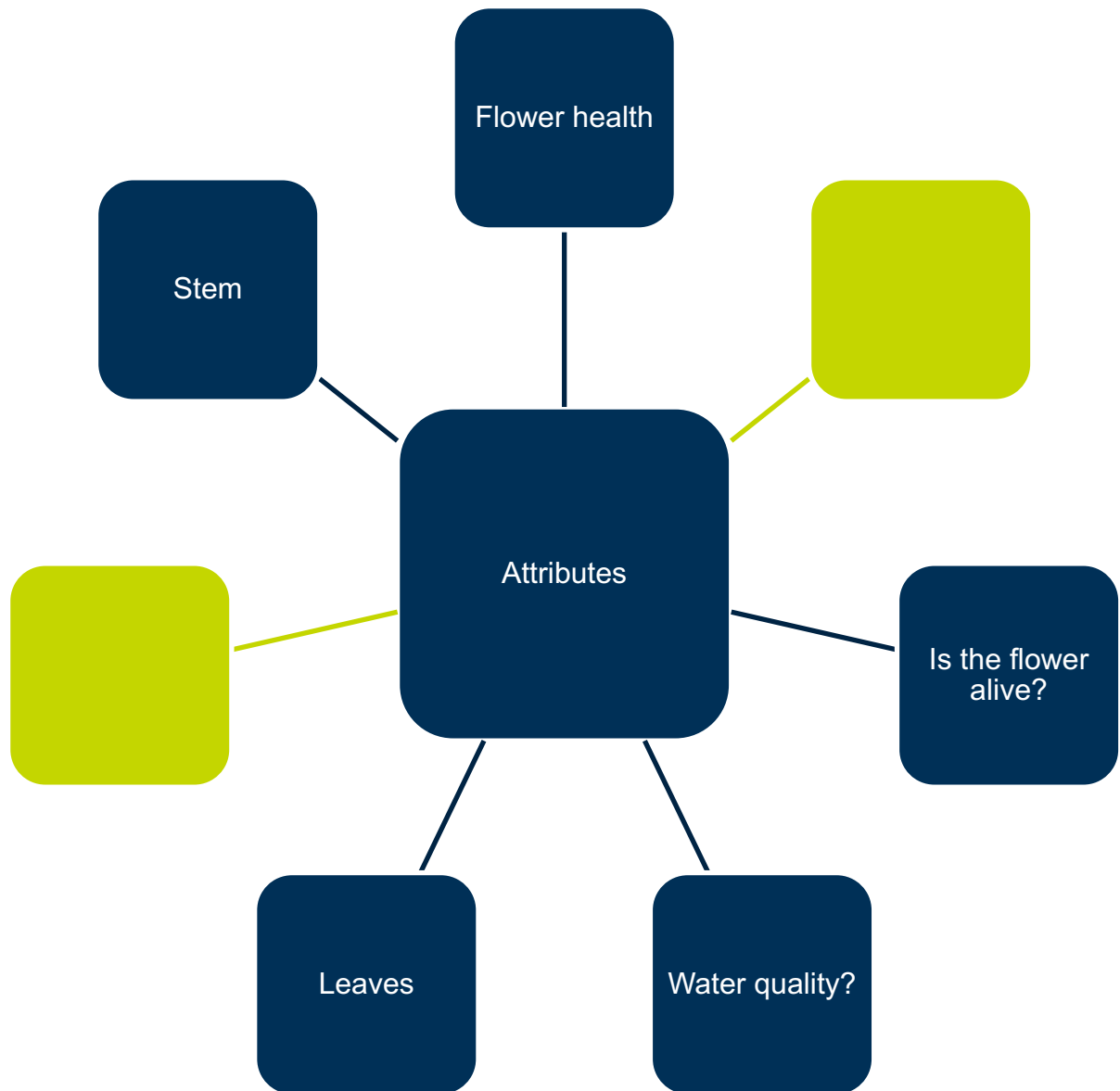
Control (water)

© Kelly Thornborrow (https://www.designerdigitals.com/digital-scrapbooking/supplies/product_info.php/products_id/24766)

Then fill in the data record table:

Flower #	Preserving agent	Quantity
1		
2		
3		
4		
5		

Each day make some observations. The flow chart below highlights some key flower attributes that you can make. Add two other attributes you could monitor to the **green boxes**.



Option 1 - Primary School Observations

Select 2-3 attributes from the flow chart above, to monitor over a week. Each day make a record of what you observed in regard to these attributes.

You will need to have a new record sheet for each flower/preserving agent combination.

Flower # _____ **Preserving agent** _____

Day 1		Day 2	
Day 3		Day 4	
Day 5		Day 6	

Option 2 - High school observations

Three suggested observations are:

1) Is the flower alive?



shutterstock.com • 448690234

Alive

Dead

Flower #	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1								
2								
3								
4								
5								

2) Health of the flower (score each flower from 1 to 7)



shutterstock.com • 610011395

Flower #	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1								
2								
3								
4								
5								

2) Water quality (write down your observations)

- It the water clear or murky?
- Is there anything starting to grow in the water?
- Does it smell?
- If you have a pH sensor, you could measure the pH of the water?

Flower #	Day 1	Day 2
1			
2			
3			
4			
5			

QUESTION: How long did each flower survive?

Flower #	Number of Days
1	
2	
3	
4	
5	

Consider entering your data into excel and graph your results

QUESTION 11: What was the best preserving agent?

QUESTION 12: Why was it the best preserving agent? (Hint: you may have to do some research)

If each student was given a different preserving agent, consider getting them to give a short 2 min talk on their flower, preserving agent and results.

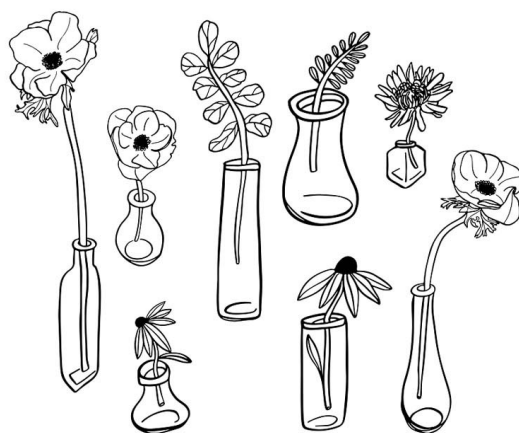
Practical alternatives

Different preservation agents

- Try a different preserving agent such as soft drink (which contains an acid and sugar component!)
- Test with a combination of things such as sugar, detergent and citric acid
- Test the same preservation at different quantities such as sugar at 0.1g, 1g, 10g etc.

Different flower species but same preservation agent

Use the same preserving agent and test it with a range of flowers



© Kelly Thornborrow (https://www.designerdigitals.com/digital-scrapbooking/supplies/product_info.php/products_id/24766)

More resources

Thomas and Gollnow (2013). What cut flower is that? The essential care and handling guide for cut flower professionals. Available at <https://www.agrifutures.com.au/wp-content/uploads/publications/13-079.pdf>