



### Learning Outcomes

- **PDe-6** Explores contextual factors that influence an individual's health, safety, wellbeing and participation in physical activity
- **PDe-7** Identifies actions that promote health, safety, wellbeing and physically active spaces
- **ENe-9B** Demonstrates developing skills and knowledge in grammar, punctuation and vocabulary when responding to and composing texts
- **ENe-11D** responds to and composes simple texts about familiar aspects of the world and their own experiences



### Resources and Preparation

#### Resources

##### Video (V)

- Video 5 - [The colour changing celery experiment](#)

##### Worksheets (WS) and Powerpoints (PTT)

- Worksheet 3 - Cabbage experiment
- Teacher Information Document (TID)

##### Materials

- Classroom poster
- 1 cup/jar per student
- 1 cabbage leaf per student
- 4 colours of food colouring (the darker the better) (Tip: Use vegetable based colouring so it doesn't stain hands and clothes)
- Paper towels
- 1x WS3 per student
- Pencils/colouring pencils
- For step 9, you will need: other fruits and vegetables, skewers/food glue, knives, cutting board, bowls, forks

##### Preparation

###### Prior to lesson:

- Bring cabbage leaves, plastic/glass cups and food colouring
- Print 1 WS3 per student
- Prepare cups with water and food colouring

## Fruit & vegie experiments

Students will do an exciting experiment with cabbage. The students can become little food scientists themselves and get creative with colours, fruits and vegetables.

### Introduction (5 mins)

Explain to the students that you will be doing a real-life vegetable science experiment. Explain what an experiment is and that it will take several days.

Divide the students into groups of 4 and explain the first steps of the experiment to them.

### Activity (50 mins, across 3 days)

1. The students put their cabbage leaf into their cup.
2. Guided by the teacher, the students complete the science experiment measurements and reports for DAY 1 on WS3.
3. As a class, ask the students if they can guess what will happen and why.
4. Put the experiments away in the classroom and wait 1 day.
5. Complete DAY 2 on WS3.
6. Put the experiments away in the classroom and wait another day.
7. Finish WS3 and have the students cut out their drawing from each day and paste into their workbooks. Ask if they can see the difference from DAY 1 to DAY 3.
8. Complete Week 4 on the poster.
9. On the last day, the cabbage can be used to make a rainbow salad or funny cabbage faces can be created by decorating it with other fruits and vegetables such as blueberries and carrots.

### Conclusion (15 mins)

Ask the students if anyone can summarise their experiment. Discuss with the students why they think the cabbage changed colour. Would the same happen with another vegetable? How about flowers? Explain that plants need water and circulate it around to their leaves. Watch V5 for more information.

### Assessment

- For:** Students understand how to do their experiment
- As:** Student successfully complete their experiment
- Of:** Students collected data, made predictions and conclusions about their experiment

### Differentiation

- Extend:** Try out other vegetables (e.g. celery) and even (white) flowers to see if they also change colour.
- Simplify:** Do the experiment as a whole class and complete WS3 in groups or also with the whole class.

### School/Home Link

Coloured cabbage leaves could be used in salads/sandwiches in the canteen.

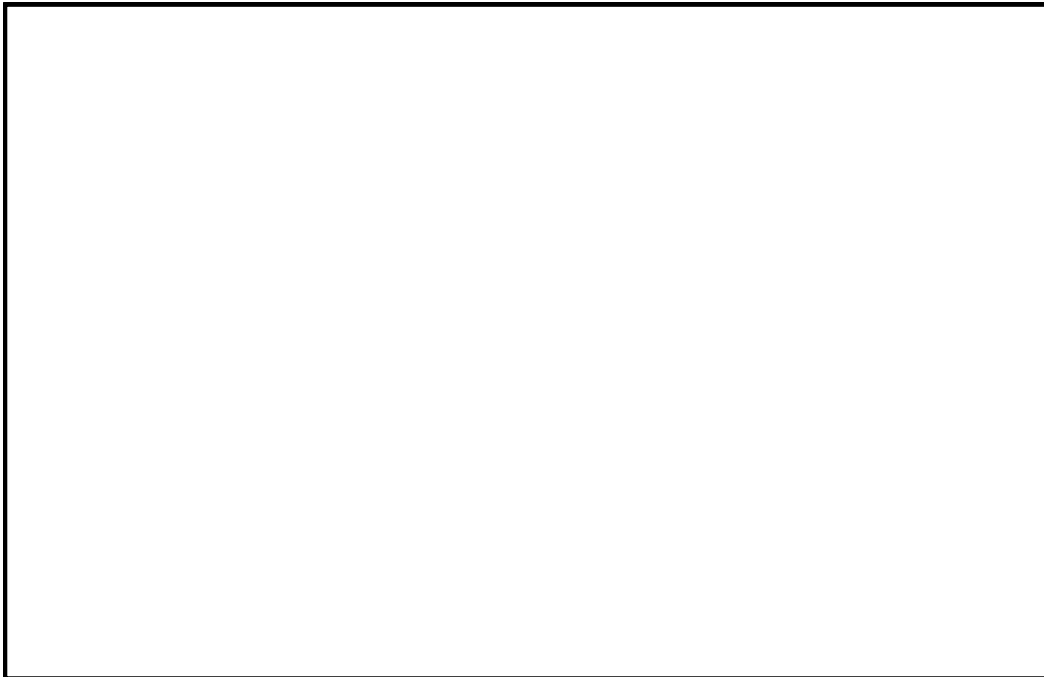
### Duration | 70 minutes



# Coloured cabbage experiment

## DAY 1

1. Draw a picture of your cabbage



2. How tall is your cabbage?

.....cm

3. How much water (in cm) is in the cup?

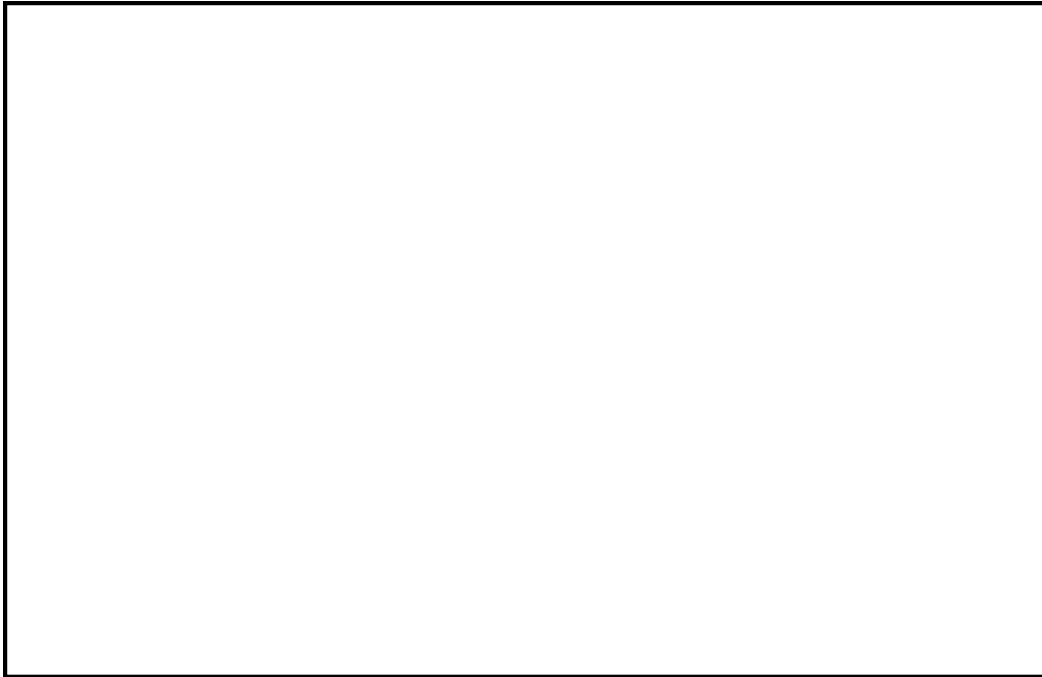
.....cm

4. What colour is the cabbage leaf?

.....

**DAY 2**

5. Draw a picture of your cabbage



6. How tall is your cabbage?

.....cm

7. How much water (in cm) is in the cup?

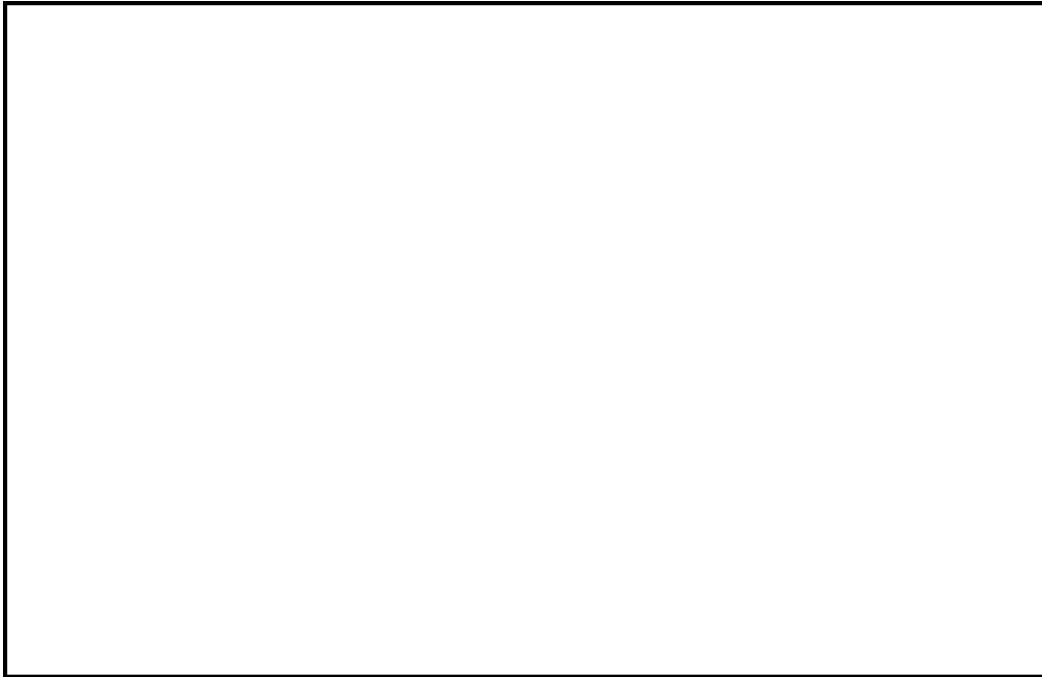
.....cm

8. What colour is the cabbage leaf?

.....

**DAY 3**

9. Draw a picture of your cabbage



10. How tall is your cabbage?

.....cm

11. How much water (in cm) is in the cup?

.....cm

12. What colour is the cabbage leaf?

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