

# Edexcel A Biology A-Level

## Core Practical 2

Investigate the vitamin C content of food and drink.



**DCPIP** is a **redox indicator dye** (which turns from **blue to colourless** when it is **reduced** and **accepts electrons**). Vitamin C is an **antioxidant** and therefore DCPIP is **decolourised** in the presence of Vitamin C. This can be used to measure the Vitamin C content of fruit juice.

## Equipment

- DCPIP solution
- Vitamin C solution
- Fruit juices
- Test tubes
- Pipette

## Method

1. Transfer 1cm of **DCPIP solution** into a test tube with a pipette.
2. Add **Vitamin C solution dropwise** to the DCPIP solution. Shake after each drop.
3. Record the **volume** of Vitamin C that is required to **change the colour** of the DCPIP.
4. Repeat the experiment and replace the Vitamin C solution with the **fruit juices**.

## Risk Assessment

Hazard	Risk	Safety Precaution	In emergency	Risk Level
DCPIP	Irritant to skin and eyes; may cause staining	Wear eye protection, keep away from edge of desk	Wash from skin/eyes immediately using cold water	Low
Broken glass	Cuts from sharp object	Take care when handling glassware; keep away from edge of desk	Elevate cuts; apply pressure; do not remove glass from wound; seek medical assistance	Low
Bags/stools	Tripping	Keep under desks and away from workspace	Seek appropriate medical assistance; clean spillages	Low



## Graph

- Plot a graph of **absorbance against ethanol concentration/temperature.**

