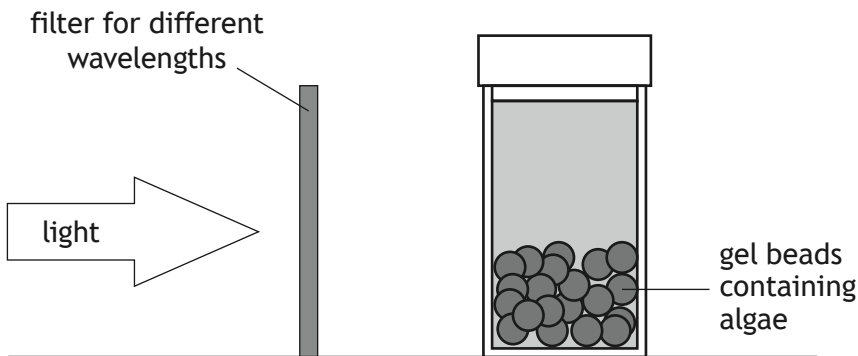


19. An experiment into the effect of wavelength of light on the rate of photosynthesis was carried out using algae and an indicator. The indicator changes colour as the algae use up carbon dioxide in the solution and can be used to measure the rate of photosynthesis.

Gel beads containing algae were placed in bottles with indicator. Each was exposed to a different wavelength of light as shown.



The time taken for the colour of the indicator to change was recorded.

The validity of this experiment could be ensured by

- A repeating the experiment three times
- B placing a heat shield between the light source and the bottle
- C increasing the number of gel beads containing algae
- D using a colorimeter to determine the colour after 10 minutes.