

# WJEC England Biology GCSE

## SP6.2 - Decomposition

### Flashcards



What is a product of the decomposition of urea?



What is a product of the decomposition of urea?

Ammonia.



How is the rate of decomposition of urea indicated?



How is the rate of decomposition of urea indicated?

Using universal indicator.

As urea is broken down to ammonia, the solution becomes more alkaline, and the indicator changes colour at the end point.



Why are the urea and urease solution placed in a water bath before mixing?



Why are the urea and urease solution placed in a water bath before mixing?

To allow the temperature of the solutions to equilibrate.



State a source of error in this practical.





State a source of error in this practical.

The colour change at the end-point may be subjective and difficult to determine.



Why does the rate of decomposition change with temperature?



## Why does the rate of decomposition change with temperature?

As temperature increases, the kinetic energy of urease and urea increase, increasing the rate of enzyme activity to the optimum temperature.

Beyond the optimum temperature, the enzyme is denatured so the rate decreases.



State a hazard and safety precaution involved in this practical.



State a hazard and safety precaution involved in this practical.

Urea, urease and ethanoic acid are all irritants. Avoid contact with skin and wear safety glasses.



State the controlled variables of this practical.



State the controlled variables of this practical.

Volume and concentration of urea,  
urease and ethanoic acid solutions.

Drops of universal indicator added.

