Combined Science - Biology - KS4 Organisation

Investigating Enzymes

(Downloadable student document)



Independent Task

Answer the questions:

- 1. How does increasing temperature affect enzyme activity?
- 2. How does increasing temperature affect the frequency of collisions?
- 3. What is the temperature when enzyme activity is highest called?



Independent Task

Answer the questions:

Explain fully how temperature affects enzyme activity (5)

- How does increasing temperature below the optimum affect enzyme activity?
- How does increasing temperature affect the frequency of collisions?
- How does increasing temperature beyond the optimum affect enzyme activity?
- When an enzyme is denatured how does the active site change?
- How does this affect the substrate?



Independent Task

Answer the questions:

Rachel wants to investigate how the temperature affects enzyme activity

- 1. What is the independent variable in this investigation?
- 2. What is the dependent variable in this investigation?
- 3. Give two control variables for this investigation

