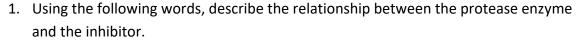




Name: Date:

## WA4 – Mutations and Protein Structure

Download and open the file **1tyn\_inhibitor\_mutated** using PyMOL. This is a protease protein which is bound to an inhibitor. Protease is an enzyme which breaks down other proteins and polypeptides into shorter strands.



Globular protein – active site – metabolise – polypeptides – inhibitor – target substrates – effectively – complementary – lock and key – induced fit – flexibility

2. A DNA change has caused the protein to mutate. Select the **Mutated\_Protease** to show the mutation. Predict the effect that this mutation will have on the inhibitor's effectiveness.

3. Explain how a change in the primary structure of polypeptide can stop an inhibitor from binding.