Chemical Equilibrium
The Haber Process
Comprehension Questions

View the video attentively. After you have finished watching, complete the following comprehension questions and tasks.

1. Write an equation showing how nitrogen and hydrogen react to produce ammonia.

2. Explain why the structure of nitrogen (N_2) makes its reaction with hydrogen (H_2) difficult in practice.

3. Fill in the missing words using the word bank. Use each word once only.

ammonia	heat	exothermic	hydrogen	energy

Nitrogen and hydrogen molecules lose _____ when they combine, releasing it in the form of _____. Since this reaction is _____, cooling the equilibrium mixture down favours the reaction that produces _____ over the reverse one that turns it into nitrogen and _____.

4. a) Give a definition of a ‘catalyst’.

b) For the production of ammonia, is a catalyst alone enough to make the process effective? Why or why not?

5. How does increasing the pressure help make the production of ammonia more effective?