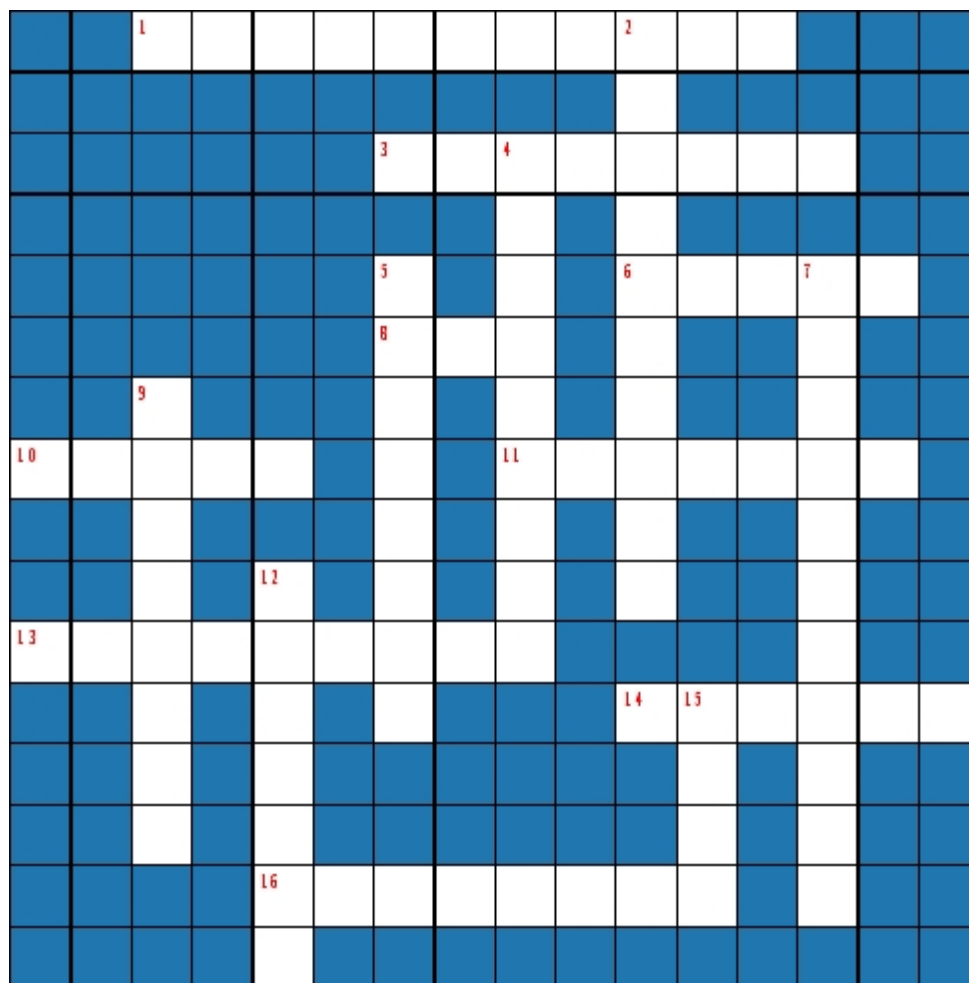


## The Haber process



### Across

- 1 Helping crops to grow, these substances are a major use of ammonia (11)
- 3 One of the two reactants needed, obtained from natural gas (8)
- 6 The Fritz who invented the process (5)
- 8 Nitrogen is obtained by the fractional distillation of this atmospheric mixture of gases (3)
- 10 An anagram of mates, this reacts with natural gas or coke to produce hydrogen (5)
- 11 The product of the Haber process (7)
- 13 The yield of ammonia does this when the pressure is increased (9)
- 14 An acid produced by the oxidation of ammonia (6)
- 16 One of the two reactants needed, it is between carbon and oxygen in the periodic table (8)

### Down

- 2 This type of reaction transfers energy to the surroundings, usually by heating (10)
- 4 The yield of ammonia does this when the temperature is increased (9)
- 5 A type of substance that increases the rate of a reaction without being used up (8)
- 7 Reversible reactions like the Haber process can reach a dynamic one of these in a closed system (11)
- 9 This happens to unreacted nitrogen and hydrogen (8)
- 12 Rearrange 'the name' - the main compound found in natural gas (7)
- 15 The metallic catalyst used in the Haber process (4)