Acids and redox

Specification reference	Checklist questions	
2.1.4 a	Can you give the formulae of the common acids (HCl, H_2SO_4, HNO_3 and CH_3COOH)?	☐
2.1.4 a	Can you give the formulae of the common alkalis (NaOH, KOH and NH_3)?	☐
2.1.4 a	Can you explain that acids release H^+ ions in aqueous solution and alkalis release OH^- ions in aqueous solution?	☐
2.1.4 b	Can you explain strong and weak acids in terms of relative dissociations?	☐
2.1.4 c i	Can you describe neutralisation as the reaction of H^+ and OH^- to form H_2O?	☐
2.1.4 c ii	Can you describe neutralisation as the reaction of acids with bases, including carbonates, metal oxides and alkalis (water-soluble bases), to form salts, including full equations?	☐
2.1.4 d	Can you describe the techniques and procedures used when preparing a standard solution of required concentration and carrying out acid–base titrations?	☐
2.1.4 e	Can you describe structured and non-structured titration calculations, based on experimental results of familiar and non-familiar acids and bases?	☐
2.1.5 a	Can you give and explain the rules for assigning and calculating oxidation number for atoms in elements, compounds and ions?	☐
2.1.5 b	Can you write formulae using oxidation numbers?	☐
2.1.5c	Can you use Roman numerals to indicate the magnitude of the oxidation number when an element may have compounds/ions with different oxidation numbers?	☐

Specification reference	Checklist questions	
2.1.5 d i	Can you describe oxidation and reduction in terms of electron transfer?	☐
2.1.5 d ii	Can you describe oxidation and reduction in terms of changes in oxidation number?	☐
2.1.5 e	Can you describe redox reactions of metals with acids to form salts, including full equations?	☐
2.1.5 f	Can you interpret redox equations and unfamiliar redox reactions, to make predictions in terms of oxidation numbers and electron loss/gain?	☐