### UNIT 7
#### TERM 3 TOPICS
- **The Sinking of HMAS GSLC**
  - Weeks 1/2: REDOX chemistry
  - Weeks 3/4: Electrochemistry/electrolysis
  - Weeks 5/6: Corrosion
  - Week 7: Restoration of artefacts
  - Week 8: REVISION
  - Week 9: SA TEST
  - Week 10: Term 4 unit: Context 8

#### Text references
- **Electrochemistry**: 4.1: 1 – 3 Oxidation–Reduction, Oxidation States, Identifying redox reactions
- 4.2: 1 – 4; Metal displacement reactions
- 4.3: 1 – 3 Galvanic cells: 4.4: 1 -3; 22.1: 1 – 4 Standard Reduction Potentials
- 4.5: 1 – 4 Reaction tendency/spontaneity
- 4.7: 1 – 3: Electrolysis 4.8: 1 – 4; Electro-refining and electroplating of metals. A&R 1 – 10
- 18.1: 1, 2; 18.2: 1 - 4; 18.3: 1 - 4
- Faraday’s Laws 22.3: 1 – 4
- 22.4: 1 – 3, Factors affecting electrolysis reactions; A&R 1, 2, 5 – 14
- 23.2: 1, 3, 5, 23.3: 1, 2, 3. Corrosion of iron; rusting. A&R 1, 2, 4 – 6, 8, 9
- 24.3 Salvaging metals from shipwrecks (time permitting) A&R 1, 5
- Module 5 Review: 1, 2, 7, 9, 11, 14, 15, 16, 20.

#### ASSESSMENT
- **SA Task 8 - Supervised Assessment**
- **DUE DATE**: Week 9, Tuesday 5th September

### UNIT 8
#### TERM 4 TOPICS
- **New Materials – from Plastics to Wine**
  - Weeks 3/4: Ethanol, production by fermentation; Oxidation of ethanol, breathalysers, BAC, esterification. The chemistry behind the ‘Art of wine-making” eg the influence of temperature, pH Visit to winery.
  - Week 5: Working on assignments
  - Week 6 - ERT due
  - Week 7 – Last week for Yr 12

#### Text references
- Quick review of Hydrocarbons with particular reference to alkanes (covered in Yr 11). Move onto alkenes, general formula, production of ethene by catalytic cracking of alkanes. (1.3) Review Ex 1.3: 1, 2ac.
- 1.4 Valuable reactions of ethene, idea of addition reactions. Eg’s page 9
- Chapter 2: Polymers: Addition and condensation polymers. Simple examples. 2.1: 1 – 5; Properties of polymers: 2.2: 1-2; 2.3: 1 – 4; 2.5: 1 & 2
- 3.3 Production of ethanol by fermentation; oxidation of ethanol (breathalyser), esterification; 3.1: 4; A&R 7, 10; the art of wine – making Heinemann ERT Research BAC, polymers, the art of brewing and wine-making.
- ERT reports due this week

#### ASSESSMENT
- **DUE DATE**: Week 2, ERT Task handed out during, Friday 13th October
- Week 5, ERT Draft due: Friday 3rd November
- Week 6, ERT Task due Friday 10th November

---

This work plan was last updated on Wednesday, 26 July 2017. The contents are subject to change – students will be advised in advance of any changes - regularly check for updates.