Map of the unit: Visiting the Chemical Industry

This shows the relationship between the Storyline, the Activities and the Chemical Ideas. To aid planning, laboratory-based practical work is indicated by (P), activities involving IT skills are indicated by (IT) and those developing study skills by (S).

ACTIVITIES	CHEMICAL STORYLINE	CHEMICAL IDEAS
VCI 1 Your visit to the chemical industry	**VCI 1** INTRODUCTION	
	VCI 2 RESEARCH AND DEVELOPMENT	**15.3** The best conditions for the process
	VCI 3 BUILDING THE CHEMICAL PLANT	**15.1** The operation of a chemical manufacturing process
	VCI 4 PEOPLE	
	VCI 5 SAFETY MATTERS	
	VCI 6 ENVIRONMENTAL ISSUES	
VCI 7 Setting up a new chemical plant	**VCI 7** LOCATION	
	VCI 8 CHOOSING A FEEDSTOCK	**15.2** Feedstocks
	VCI 9 MAKING A PROFIT	**15.4** Becoming even more efficient **15.5** Costs
VCI 10 Check your notes on **Visiting the Chemical Industry** (S)	**VCI 10** SUMMARY	

VCI

VISITING THE CHEMICAL INDUSTRY

Relation to other units

Examples of industrial chemistry are a recurrent theme in the course and we suggest that students use relevant parts of **Visiting the Chemical Industry** to support their work in each unit.

In addition, a structured visit to a chemical industry is a highly recommended part of the A2 course. This aspect of the course is supported by this unit.

The table below lists the main areas where industrial chemistry is covered in the teaching units and shows the related parts of the **Visiting the Chemical Industry** unit.

Area of industrial chemistry	Teaching unit	Visiting the Chemical Industry	
		Storyline	Chemical Ideas
Production of petrol; work of chemists in improving fuels and in searching for and developing fuels for the future	DF	VCI 7, VCI 8	15.2, 15.3
Extraction of bromine from sea water; chlorine production	M	VCI 5	15.2
Health and safety precautions needed when hazardous chemicals are stored, transported and used	M	VCI 5	–
Extraction of copper; scale of operation and environmental implications	M	VCI 6	15.1
Flow diagrams for chemical processes	DF, M, SS	–	15.1
Historical development of addition and condensation polymers; modern polymer industry	PR, DP	VCI 8	15.2
Pharmaceutical industry; development and testing of new medicines	WM, MD	VCI 2	15.1
Industrial importance of enzymes	EP	–	15.1
Steelmaking; types, properties and uses of steels; recycling steel	SS	–	15.1, 15.4
Haber process for the production of ammonia	AA	VCI 2	15.1, 15.2, 15.3, 15.4
Ways chemists can help improve food production (making fertilisers, controlling soil pH; pesticides, herbicides and fungicides)	AA	–	15.1
Dyeing fibres	CD	–	15.1