Cambridge IGCSE Physics
Teacher’s Resource
David Sang

Cambridge IGCSE Physics matches the requirements of the Cambridge IGCSE Physics syllabus (0625). It is endorsed by Cambridge International Examinations for use with their examination.

This Teacher’s Resource is intended to be used alongside the Cambridge IGCSE Physics Coursebook and Workbook.

The Teacher’s Resource CD-ROM contains:
- animations to illustrate key syllabus concepts
- question sheets and answers covering each block from the Coursebook
- answers to the end-of-chapter questions in the Coursebook and the multiple-choice questions from the Coursebook CD-ROM
- guidance notes for the Activities included on the Coursebook CD-ROM
- answers to the exercises in the Workbook.

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Introduction

The resources on this Teacher’s Resource CD-ROM have been written to help students studying Cambridge International Examinations IGCSE® Business Studies (0450). The materials are designed to support the IGCSE Business Studies Coursebook with Student CD-ROM.

The Teacher’s Resource CD-ROM provides four types of material:

1. answers to the activities, case study tasks, test yourself, exam practice questions, and exam-style case studies
2. teaching ideas, including further activities with answers and topics for discussion
3. worksheets and answers
4. sample Paper 1 and Paper 2 examination-style questions, and mark schemes and guidance.

There is a variety of materials included to support and help assess the relevant content areas. You can also use these ideas as a basis for creating your own materials, which you can tailor to both your own country’s and to students’ individual needs.

Using this CD-ROM will help you to provide students with:

- a variety of activity ideas to help them understand and apply concepts
- practice activities in dealing with the case study-style questions
- guidance to help them avoid common errors in answering examination questions.

Answers to Coursebook activities and end of unit exam-style case study

This section includes answers to the activities, case study tasks, test yourself and exam practice questions. It also provides a mark scheme and guidance for the exam-style case study that appears at the end of each unit in the Coursebook.

The answers for several of the questions will depend on the students’ home country. Guidance on possible points that could be included is provided wherever appropriate.

Teaching ideas and worksheets

The Coursebook and Student CD-ROM include a number of activities to accompany each unit, both for teaching and revision purposes.

The teaching ideas included on this Teacher’s CD-ROM are intended to complement these materials. They provide further activities and discussion ideas for use either in the classroom, or as homework for consolidation or revision purposes. The activities are not designed to be prescriptive, as much will depend on the ability levels of your individual students and how you, as a teacher, intend to approach each topic. For example, you might want to set the most able students case study-style activities, while giving others the reinforcement-style activities.

Be flexible in how you use the teaching ideas. For example, you might want to switch some of the discussion topics to be used as written exercises. Alternatively, you might want to give more able students the opportunity to explore the issues in more depth and for them to present their findings to you or the class. Most activities could be undertaken individually, in pairs or as part of a group.

Adapting resources is important in Business Studies as the subject matter is always changing. Businesses have to react to changing market conditions so there is always plenty of new material to use as the basis for a case study-style question, discussion or activity. Reuse or adapt the questions to suit the news story or event.
At the start of each chapter, there are brief guidance notes intended to highlight some of the main syllabus themes that need to be covered.

The material provides a mixture of reinforcement exercises, activities, worksheets and discussions.

- Reinforcement activities – these are simple questions designed to ensure students have understood the key terms involved in particular topics.
- Activities – these are tasks and activities for students to do in class or at home to help them understand and use knowledge learned in different situations. These should allow students the opportunity to practise their application, analysis and evaluation skills as appropriate.
- Discussion topics – these are intended to give students more opportunity to practise skills, or develop a wider understanding of a particular topic.
- Worksheets – these allow students the opportunity to independently practise or consolidate a skill or knowledge that has been introduced.

**Sample examination-style questions and mark schemes/guidance**

In the examination section you will find sample Paper 1 and Paper 2 style questions.

- For each paper, there is a mark scheme covering each of the eight questions intended to help teachers assess and comment on individual students’ answers.
- General guidance notes are provided to explain what makes a successful answer and to highlight common errors or mistakes.
The syllabus (0450)

To support students preparing for examination, teachers should familiarise themselves with the syllabus, the opportunities that it offers for flexibility and its implications for teaching and resourcing. Details of the Cambridge IGCSE® Business Studies (0450) syllabus, together with sample examination papers and mark schemes, can be found on Cambridge International Examinations’ open website at:

(For students taking Cambridge O Level Business Studies (7115), the syllabus and sample examination papers/mark schemes can be found at:

In terms of aims, learning objectives and standards expected, the latest syllabus (suitable for examination from 2015) is very similar to its predecessor (0450 – last examination in November 2014). Some additions and deletions have been made to the syllabus content. The content that will be tested in these examination papers can be obtained from the Cambridge website. You should select the relevant syllabus for the year in which students will sit their examination. There have also been minor changes made to the assessment structure, which are summarised below.

Notable changes include:
• four compulsory questions on each paper
• each exam is now 1 hour 30 minutes.

Paper 1 and Paper 2

Paper 1 – short answer/structured
• One hour 30 minutes
• 80 marks
• Four questions with a mixture of short answer and structured response type questions – each question will have five parts
• All questions should be answered

Paper 2 – case study
• One hour 30 minutes
• 80 marks
• Four questions based on a case study – each question will contain two parts
• The case study is provided as a separate insert

It is essential that teachers and students familiarise themselves with the type of examination papers they will be confronted with. (A full set of past papers, mark schemes, examiner reports and further support are available on the Cambridge Teacher Support website http://teachers.cie.org.uk/) It is particularly important that students:
• understand the layout of the paper, so that they know where to look for the section containing the questions for which they have prepared
• are familiar with the type of questions they are likely to be asked.

The Teacher’s Resource CD-ROM will explore these papers in detail, with a variety of sample questions and model answers. There are also practice exercises, designed to help students progressively develop the skills that they will require in order to address examination with confidence.
Planning – a scheme of work overview

A detailed scheme of work is available from the Cambridge Teacher Support website. The following outlines one possible way you might wish to organise your time over a typical two-year course. The specifics will vary depending on local circumstances.

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<td>Teacher explanations/student research</td>
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<td>Focus on developing students’ knowledge and understanding of key concepts</td>
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<td>Classification of businesses</td>
<td>Group work and discussions</td>
<td>Worksheets</td>
<td>Introduce simple scenarios/case studies and diagrams so students start to apply the knowledge learned</td>
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<td>Enterprise, business growth and size</td>
<td>Questions and answers</td>
<td>Media, e.g. the internet, television, newspapers</td>
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SAMPLE
## Scheme of work

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<td>Continue to use a range of activities to enable students to practise each of the four skills</td>
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<td>Teacher explanations/student research</td>
<td>Textbooks, Worksheets</td>
<td>Ensure there is a range of activities and strategies to enable students to practise all four skills</td>
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<td>TERM 6</td>
<td>Revision</td>
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<td>Past or sample papers</td>
<td>Focus on developing examination techniques – including command words, question focus, time management</td>
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<td>Worksheets</td>
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</table>
1 Business activity

Teaching ideas

Guidance notes
At the start of the course, it might be helpful to find out what students already know – consider having an ideas session by asking the question ‘What is business studies?’.

This chapter introduces a number of important concepts. The focus of the related worksheet is reinforcement to ensure students have understood the key points.

Activity 1.1 Opportunity cost (AO2, AO3, AO4)
This activity could be undertaken individually or in small groups.

1  Diaz and Cameron have saved up $1,000 to buy a car. It will be quicker and cheaper to get to work. Just before they are going to order it, a heavy storm damages the roof of their house. It will cost $800 to repair.
2  Silver Plc has just announced record profits. The management are keen to reward their employees to thank them for their efforts. They can now afford to pay their shareholders a dividend for the first time in three years. They cannot afford to do both.
3  The government of Country C has set aside $10 million for boosting the economy. It can either build a new training college or a business park to attract new businesses to set up in the country. Each project will cost $10 million.

For each of the above situations:
a  Explain one reason why a choice has to be made.
b  What would you decide to do? Give a reason for your choice.
c  Can you think of any disadvantages of the choices you have made?

Answers to activities

Activity 1.1

1  a It will cost too much to do both. To buy the car and repair the roof, Diaz and Cameron will need $1,800, $800 more than they have. Unless they can buy a different car for $200, they have to make a choice.
b  Either option is acceptable. The roof would seem more urgent as they will need shelter. The car will only make it easier for them to get to work; they have other means of transport.
c  Possible problems depend on the choice made. If they decide to repair the roof, it will mean their cost of travel remains high. What if prices rise? If they decide on the car and they do not fix the roof, they risk their home flooding, which could cost them even more money.

2  a A choice has to be made as only a certain amount of money is available. The company will need to keep some money to reinvest in the business.
b  Either option is acceptable. If Silver Plc rewards its employees, this is likely to encourage them to continue to work hard for the business, and so hopefully earn even more profit. Shareholders invest money in the business, and without their investment the business might not exist.
c  Possible problems depend on the choice made. If Silver Plc rewards its employees, this might discourage future investors from putting money into company, which could limit further expansion. If the company does not reward its employees, key employees might leave to join rival companies. This could damage the reputation or quality of goods provided.

3  a The government has a limited amount of money. If it decides to undertake both projects, it will need to increase taxation or cut spending elsewhere.
b Either option is acceptable. It is a difficult decision but it will depend on the priorities of the government.

c Possible problems depend on the choice made. If the government were to build the college, this could discourage businesses locating in the country so there might be a lack of jobs for the trained people to choose from. Equally, if it were to develop the business park, would there be enough trained workers to take advantage of the jobs created?
1 Business activity

Worksheet 1

Business activity basics (AO1)

Business activity

1 Match the following descriptions to the correct terms.

Needs  Items we would like to have, but are not essential.
Wants  Items that we must have in order to live.

2 State whether the following statements are true or false.

a The purpose of business activity is to make a profit for businesses. _________
b Opportunity cost is the cost of something in terms of giving up the next best thing. _________
c Specialisation means making unique items for each customer. _________

3 Complete the following sentence, selecting the right word for each gap.

scarcity   unlimited   limited   goods

The economic problem is trying to meet _________ wants but only having _________ resources to produce all the _________ and services to meet these wants. This leads to _________.

Factors of production

4 Draw lines to link each factor of production with its correct description and example.

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<thead>
<tr>
<th>Factor</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>People who take risks to bring about activity</td>
<td>Buy new machinery</td>
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<tr>
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<td>Buildings and inventory</td>
<td>Fish from the sea</td>
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<td>Enterprise</td>
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<td>Investors</td>
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</table>

5 Choose the correct word to complete the sentence.

Buying a new building increases businesses’ land/capital.

Added value

6 Draw a diagram on the reverse of this worksheet to explain what added value is. Use the following information to help you.

A food company buys materials for $2,000. It sells its products for $3,500. It spends $1,000 on wages and other costs.

Sectors

7 Choose the correct words to explain how most economies are organised.

public   charities   private   voluntary

Most economies are made up of two main sectors. The _________ sector includes businesses that are owned and run by individuals. The _________ sector is made up of organisations owned and run by the state. There is also a third sector, known as the non-profit making or _________ sector, which includes organisations such as _________.
1 Business activity

Answers to Worksheet 1

Business activity basics

Business activity

1 Needs – items that we must have in order to live.
   Wants – items we would like to have, but are not essential.

2 a False – the purpose of business activity is to produce goods and services that people need and want.
   b True
   c False – specialisation only tries to make the best use of limited resources.

3 The economic problem is trying to meet unlimited wants but only having limited resources to produce all the goods and services to meet these wants. This leads to scarcity.

Factors of production

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5 Buying a new building increases a business’s capital.

Added value

6 |
| Cost of bought in materials | $1000 labour costs |
| Added value | $500 profit |
| $2000 |
| $3500 |

Sectors

7 Most economies are made up of two main sectors. The private sector includes businesses that are owned and run by individuals. The public sector is made up of organisations owned and run by the state. There is also a third sector, known as the non-profit-making or voluntary sector, which includes organisations such as charities.
Answers to Coursebook activities

**Activity 1.1** (page 10)
Student’s own answer.

**Activity 1.2** (page 10)

1. Total required needs for population:
   - Water: $500 \times 100 \text{ litres} = 50,000 \text{ litres}$
   - Food: $500 \times 25 \text{ kilos} = 12,500 \text{ kilos}$
   - Clothing: $500 \times 20 \text{ units} = 10,000 \text{ units}$
   - Housing: $500 \times 1 = 500 \text{ houses}$
   
   Enough water, but not enough food, clothing or housing, to satisfy needs of population.

2. Those with a higher income than rest will want to satisfy their basic needs and will be able to afford to pay price charged by suppliers. As food, clothing and housing is scarce, this is likely to cause prices to rise. Those able to afford to pay higher prices may decide to buy more than they need to ensure they always have supply of their basic needs. This will reduce supply of basic needs for rest of population, so fewer families will be able to satisfy their needs.

**Activity 1.3** (page 12)

1. Land – natural resources, such as wheat for flour used in cakes
   - Labour – number of people available to work in Fatima’s business
   - Capital – machinery, equipment and finance needed to make cakes
   - Enterprise – Fatima prepared to take risk in setting up business.

2. Wage she earns from working in bakery.

3. ‘Needs’ are things that people need to survive. ‘Wants’ are things that people would like, but are not essential for living. Fatima produces cakes for special occasions. Although cakes are food, they are luxury items so are ‘want’ rather than ‘need’.

**Case study** (page 13)

a. Specialised machinery

b. The production process is divided into five stages and each worker only completes one of those stages. For example, some workers will only cut out panels from sheets of leather.

c. Workers become skilled in just one task so they are able to produce more. Also, because workers are skilled at what they do there will be fewer mistakes so the quality of footballs produced will be better.

d. One benefit to Global Sports is that workers will produce more footballs. This reduces the cost of producing each football. Global Sports will earn more profit for every football made, or they will be able to lower their prices below competitors and sell more footballs. The benefit for consumers is that they will be able to buy high quality footballs at a lower price.

**Case study** (page 15)

a. $600,000 + (30\% \times 600,000) = 780,000$

b. Consumer goods are sold to public for their use; can be divided into durable and non-durable. Printer cartridges are non-durable consumer goods as once ink has been used to print it cannot be used again. Capital goods are sold to other businesses for them to use in the production process, e.g. computer-controlled equipment to manufacture printer cartridges used by RTP.
Division of labour is where each member of RTP’s workforce will specialise in one area of the production process. They will become very skilled at doing the same task and this could increase RTP’s labour productivity. However, the workers may become bored if they are only doing simple repetitive tasks and this might cause problems for RTP. (Although not expected at this stage in the course, more able students may identify some of these problems, e.g. lower productivity, poor quality, increased absenteeism and an increase in labour turnover.)

Student’s answer must include suitable justification.

Activity 1.4 (page 17)
Student’s own answer.

Activity 1.5 (page 17)
- By taking raw materials, e.g. ingredients and food items, and converting these into meals for diners. Owners may also decorate and furnish restaurant so that it is nicer place for diners to eat.
- Taking leather and converting this into shoes for people to wear.
- By converting materials such as wood, cement, bricks into houses that people can live in.
- By taking flowers and combining these into bouquets or other displays for customers to buy.

Case study (page 18)

a Enterprise, e.g. Mitike Paulos and her younger sister; Land, e.g. workshop; Capital, e.g. equipment; Labour, e.g. ten workers.

b Process of producing goods and services to satisfy consumer demand. Mitike’s business produces leather bags and belts that are sold to customers.

c Business employs workers who are paid a wage. They can use money from wages to buy basic needs, e.g. water, food, clothing and housing.

d Mitike’s business takes raw material – leather – and converts this into bags and belts that it sells to customers at a higher price than what the business pays for the leather.

e Add special features to products that will make them different or better than similar products offered by competitors; create a brand image for products through advertising or persuading local celebrity to buy products – celebrity endorsement.

Test yourself (page 18)

1 A ‘need’ is something that is essential to living, e.g. food, water, clothing, shelter. A ‘want’ is something that people would like but is not essential for living, e.g. mobile phone, holiday.

2 Impossible to produce enough goods and services to meet consumers’ needs and wants.

3 Unlimited wants cannot be satisfied because there are limited factors of production. This creates scarcity.

4 Specialised machinery may help a business to increase productivity, lower costs of production and produce a wider range of products.

Exam practice questions (page 19)

1 a Jonah has identified that consumers want to buy wooden toys; Jonah buys raw material and other resources needed to produce wooden toys; Jonah converts raw materials into finished products which satisfies consumer wants. [2]

b Toys are hand-made. Jonah does not use machinery to make toys. [2]

c Cost of next best alternative given up (2). Instead of making and selling wooden toys, Jonah could earn wage by working as joiner for local house builder (2). [Total: 4]

d Answers might refer to branding, special features, personalised service and convenience, as shown below (1 per relevant point identified up to a maximum of 2). Jonah could add special features or
design new wooden toys (1). This will make his products better (1). Customers will be prepared to pay more (1). Jonah could create a brand for his toys (1) through advertising (1). Customers will be more aware of Jonah’s toys and buy his toys rather than competitors’ toys (1). Jonah could provide a specialised service (1). He might paint toys in the colours asked for by the customer (1). This will make Jonah’s toys unique (1). [Total: 6]

e Identification of benefits only (maximum 2). Answers might include: reduces costs of production; more efficient; reduces waste; improves quality; lowers price. Possible answers might include: Jack will be able to build houses more quickly (1) and the work completed will be better quality (1). This will help him to sell more houses (1). Or, workers will be more efficient (1). This reduces the costs of building each house (1). Jack can lower prices and this will increase sales (1). [Total: 6 marks]

2 a Land, labour, capital, enterprise. [2]
b Something that is essential to life, e.g. water and food. [2]
c When people and businesses concentrate on what they are best at doing (1). Company X is better at producing pottery products than other types of products (1). There is division of labour in the company (1). Production is divided into nine different processes and each worker only performs the tasks in one of these processes (1). [Total: 4]
d Taking clay and shaping this into plates and bowls (1) is likely to be labour intensive (1) and require a high level of skill (1). Taking the clay plates and bowls and putting them into an oven (1) is not a skilled process (1) and is capital intensive (1). [Total: 6]
e Company takes raw materials and converts these into plates and bowls (1), which it sells to consumers at price higher than cost of raw materials used in production process (1). Manager can add value by: improving branding of Company X’s products (1), e.g. through increased advertising or promotion of company’s products (1); improving service to customers (1); offering personalised service to hotels and restaurants that company sells products to, e.g. by visiting them in person and making sure that they receive the products that meet their specific needs (1). [Total: 6. Note: to be awarded maximum marks the suggestions must be related to the products Company X produces and their main markets of hotels and restaurants.]
25 Environmental and ethical issues

Teaching ideas

Guidance notes
This chapter covers a number of issues, for which there are no definitive answers. Issues such as cost-benefit analysis and sustainable development can produce a range of answers. Students need to practise identifying and explaining points in a variety of situations. Looking at local examples should help students have a better understanding of the issues. Discussions and presentations are a good way to allow students to explore a range of issues. Try to find examples that are relevant to your country, as this can help students develop a better insight into the various views/issues being raised.

Activity 25.1 Business decisions and externalities (AO2, AO3, AO4)
A major transport company wants to build a new distribution centre on an area of wasteland close to a local school. The land is used by local children as a playground. The business hopes to create 100 new jobs. Supporters think it would allow local shops to have a wider choice of goods to sell. Large vehicles would transport deliveries throughout the day and night to ensure shops always had access to inventories.

1 Identify possible social costs and benefits if the new development goes ahead.
2 Would you allow the company to build the new distribution centre? Give reasons for your answer.

Activity 25.2 Sustainable policies (AO1, AO2, AO3)
Shell is a global energy company that provides oil and gas products. Shell believes in sustainable development. It tries to take account of economic, environmental and social considerations as part of its business decisions.

While Shell’s objective is growth, the company tries to address the global problem of carbon dioxide (CO₂) emissions by supplying more natural gas to generate electricity, helping develop alternative energies such as carbon capture and being more energy efficient at all its operations.

1 What is meant by sustainable development?
2 Explain ways in which Shell could demonstrate it is trying to act in a sustainable way. Some examples are given in the text to help you.
3 Explain possible reasons why businesses try to act in a sustainable way.

Discussion ideas: Ethical awards (AO2, AO3)
In 2013, Kellogg’s and PepsiCo were among a number of major companies criticised for their lack of commitment to improving the rights of women and farmers who help produce their successful products. The following month, they were named as two of the world’s most ethical companies by a leading independent organisation.

All winning companies are likely to use these awards as part of their marketing – on websites, press releases and on the products they sell. But what do these awards do? What is ethical or unethical and who decides?

Awards create a lot of media interest, and can lead to some discussions within each sector about how they might improve their ethical standards. But is it more a case of celebrating what they have done, rather than tackling the actual problems of sustainability and other supply chain issues?

Source: Adapted from Guardian Sustainable Business Blog, 3 September 2013.
In pairs or small groups, discuss:

- What role do awards play in encouraging ethical behaviour?
- Are there examples of ethical companies that you can think of?
- Would an award persuade you to use that company?
- Is ethics a marketing ploy?

**Answers to activities**

**Activity 25.1**

1. Social costs: noise pollution, air pollution, loss of play area, increased traffic. Social benefits: more jobs, increased trade for local shops because of jobs, more choice and availability of goods.

2. Student’s own answer. Points made in question 1 should be used as the basis for the decision, which needs to be consistent with argument made.
   
   *Tip:* Encourage students to write in sentences and not use bullet points when giving and explaining reasons.

**Activity 25.2**

1. Being able to maintain levels of production for a good or service over a long period of time.

2. Alternative energies so don’t use up scarce oil reserves as quickly, better efficiency will eliminate waste so uses scarce resources better, look for less environmentally-damaging sources of energy, e.g. gas rather than oil, choose sites after careful consideration of environmental impact; use video-conferencing to reduce need for travel where practical.

3. Lower costs so help improve profits, protect environment, achieve objectives, avoid negative publicity, which might damage reputation, ensure meet government regulations so able to operate, competitive advantage as if other companies don’t follow principles might gain customers from them.
25 Environmental and ethical issues

Worksheet 25

Pressure groups (AO1, AO2, AO3)

Polluters beware!

The government has announced plans to impose new restrictions on businesses that pollute the environment. The environment minister said, “The level of pollution that people have to suffer is completely unacceptable.”

One pressure group said it was time that the government took some action. “It’s society that pays for the pollution and businesses make the profit. Businesses just talk about ethics. At the end of the day, businesses can’t have profits and be ethical!”

1 What is a pressure group?

2 List two methods that a pressure group might use to try to influence business or government behaviour.
   Method 1:

   Method 2:

3 Explain two possible measures a government could take to deal with the pollution problem.
   Measure 1:

   Measure 2:

4 Outline three things a business could do to reduce its impact on the environment.
   Option 1:

   Option 2:

   Option 3:
5 Do you think business activity always damages the environment? Explain your answer.


Follow-up work
Find out if any pressure groups exist in your country. What issues are they interested in?
25 Environmental and ethical issues

Answers to Worksheet 25

Pressure groups

1. A pressure group is a group of people who come together with a common aim to try to influence the decisions and activities of businesses, local groups and government.

2. Lobbying local or national government to get laws or regulations passed or changed, such as restricting night-time flying by airlines; writing letters to the chief executives of companies or newspapers to draw attention to issues; direct action such as boycotting the goods of companies so that they take notice of the pressure group’s concerns.

3. Pass laws or regulations limiting amount of pollution allowed – businesses would then be restricted to the amount of pollution they could produce; impose fines or penalties for pollution – business must cut levels or face increased costs of production; provide education or training to help businesses find ways to solve pollution problems; pass laws preventing certain practices so companies cannot pollute – firms must change behaviour or go out of business.

4. Change methods of production to use greener, more efficient practices; change equipment, e.g. fit filters to chimneys; update polluting machinery to reduce emissions such as ‘greener vehicles’; change to cleaner fuels or methods of distribution – send by rail or sea rather than plane, as more items can be sent in a single trip compared to air freight.

5. Student’s own answer. Points to consider include: some businesses do try to think about the environment in the products they make, and how they package, market and distribute goods. In some firms there is a growing awareness of their impact on the environment. Other firms are only interested in profit so might not care about the effect of their actions on the environment. Much depends on the business objectives and the type of business.
25 Environmental and ethical issues

Answers to Coursebook activities

Activity 25.1 (page 317)

1. Students should be encouraged to evaluate whether the advantages of the location of factory, i.e. the positive externalities outweigh the disadvantages, i.e. the negative externalities. There is no ‘right’ answer. Arguments in support of the location might focus on issues such as improved products for consumers, employment opportunities in an area of high unemployment, the sharing of ideas with other businesses and the benefits to the local community of improvements in the local infrastructure. The location of Loreli’s factory and the improvements it could bring in infrastructure and product expertise might encourage similar businesses or support industries to also locate in the same area. Arguments against might focus on the general environmental impact of the location of the factory and how this might have a negative effect on the local population. Issues such as pollution and destruction of ‘green spaces’ and how this might affect the local population’s quality of life/living standards and the loss of possible income to the local area from any possible reduction in tourist numbers.

2. Might approve because: provides employment, which reduces government spending on payments to unemployed; improves standard of living for local community through employment and improved infrastructure; contributes towards growth of economy. Might not approve because: might be politically unpopular – how soon is the next election for government? (this may not be relevant to all countries); action of pressure groups; might want to protect the environment – could have objective to reduce pollution in the country.

Activity 25.2 (page 318)

1. Government, local community, pressure groups, suppliers/construction companies, airlines, airport customers.

2. Construction traffic, increased traffic congestion once airport is opened, noise pollution and air pollution once airport is operational.

3. Economic benefits: employment opportunities both for the construction and operation of new airport – increases consumer disposable income. Consumers will spend some of this ‘extra’ income on goods and service produced in Country X – increases output of domestic businesses. Increase in tourism – increases exports; earns foreign currency for country X – tourists spend money in local businesses, e.g. hotels, restaurants and tourist attractions.

4. More aircraft increases noise and air pollution; land used for new airport cannot be used for more environmentally friendly uses; trees, plants and animal habitats will be destroyed forever; could affect health of local residents.

5. Student’s own answer, depending on answers to previous questions.

Activity 25.3 (page 322)

1. Noise, air and land pollution; possibility of chemical leaks; effect on local water supplies and the habitat this provides for birds and other animals.

2. Benefits: provides employment, which increases consumers’ disposable income and improves living standards. Limitations: air, noise and traffic pollution; health issues arising from the toxic chemicals used in tyre manufacturing; will water and energy supplies to local households be reduced as a result of the factory usage?

3. Passing and enforcing laws to prevent/control the level of pollution. Planning laws to restrict the size of the factory or its hours of operation to protect local residents from 24-hour noise, traffic or air pollution.
pollution. Could require ABC to offset their damage to the environment with schemes aimed at helping the environment, e.g. planting trees.

**Activity 25.4 (page 324)**

1. Student’s own answer.
2. Not only unethical, it is illegal.

**Case study (page 325)**

a. Ignored warnings about unsafe conditions of buildings, low pay, limited workers’ rights, dangerous working conditions and child labour.

b. Should not buy goods from suppliers who provide worse conditions than would be expected if they were being manufactured in the buyer’s own country. However, this does not mean that low labour costs are unethical as long as workers are being paid the ‘going-rate’ for Bangladesh. Western buyers are, after all, looking to source supplies at the lowest cost. But if Western retailers are then selling these goods using very high profit margins, is it ethical that they should do so when wage rates are so low?

c. Western buyers have a responsibility for ensuring that the goods they source are being produced ethically. They could send representatives from their company to visit Bangladesh and inspect the factories. The power is with the Western buyers and they could force suppliers in Bangladesh to behave ethically otherwise they will not buy their products.

d. Children should be receiving an education and not forced to work simply because they are cheaper than adults. Children are more likely to suffer injuries in the workplace as they are not as physically well developed as adults and are less aware of potential dangers in the workplace.

e. Pass laws stating the minimum age for workers; ensure all children receive an education; fine or close down businesses that break the law; provide financial assistance to families so that they do not have to rely on the wages of their children.

**Test yourself (page 325)**

1. Causes different types of pollution, uses up natural resources, soil erosion, destruction of animal habitats, production of waste, emission of greenhouse gases, uses up non-renewable energy resources.

2. The effect of business activities on unrelated parties.

3. To analyse the social costs and social benefits of a project. Benefits should outweigh cost.

4. A business activity that has a positive overall impact on the environment and its stakeholders, ensuring future survival.

5. It is in the long-term interests and survival of business to act ethically.

6. A group of people who join together for a common cause, often to change the behaviour of business.

7. Pollution targets and waste disposal regulations; government might fine, close down or even imprison business owners who ignore these targets or regulations; taxes or levies on commercial energy use; to encourage businesses to be more energy efficient.

**Exam practice questions (page 326)**

1. a. A business activity that has a positive overall impact on the environment and its stakeholders. (2)
   b. The effect of business activity on unrelated parties. (2)
   c. Positive: provides employment (1), Juan Cruz will pay wages to local people to work in his shrimp farming business (1). Negative: damage to marine biodiversity (1), the business is taking too many shrimps from the sea and soon none will be left (1). [Total: 4]
   d. Uses energy sources (1), might use sources of energy that cannot be renewed such as coal and gas (1), use of these energy sources also creates greenhouse gases that are bad for environment (1). Uses
natural resources (1), might take too many shrimps from sea/overfishing (1), could lead to scarcity of shrimps, which will increase prices (1). [Total: 6]

e  Impose a tax on energy use (1), increase price of energy to business, which increases costs of production (1), they will look at ways to reduce energy consumption/use more energy-efficient production methods/use alternative, more environmentally-friendly energy sources (1). Set standards for businesses to meet when using renewable resources, e.g. shrimps (1), set quota for the amount of resources a business can use in a given time period (1), reduces risk of resource becoming scarce (1). [Total: 6]

2  a  A group of people who join together for a common cause (1) to influence business activity/government policies (1). [Total: 2]

b  Exploiting workers by paying very low wages, employing child labour, unsafe/unhealthy working conditions. [2]

c  Improves reputation/brand image (1) increases sales/profits/investment (1). Motivates workers (1), easier to retain and recruit workers (1). [Total: 4]

d  Encourage consumers to boycott/stop buying Khan’s products (1), reduces sales and profits (1), could cause closure of Khan’s business. Could persuade government to ban import of supplies from countries acting unethically (1), Khan will not have enough supplies of raw materials (1), will not be able to produce full output so lose sales (1), or have to look for other suppliers who might be more expensive (1). [Total: 6]

e  If he does not change supplier then consumers may boycott his goods (1), this will decrease sales and profits (1), could result in closure of the businesses (1). If he does change then costs will rise (1), might have to increase price of garments (1), less competitive so consumers buy elsewhere and Khan’s market share/profits will fall (1). [Total: 6]