7 OPERATIONS: PRODUCING THE GOODS

Operations management is covered in this unit and Unit 8. In this unit, the focus is on production methods and processes and associated issues. The first listening extract, from a lecture, looks at the input–transformation–output process and discusses how value is added at each stage of the process. It also describes the three main types of production: job, batch and flow. Finally, the importance of scheduling in planning the production process is emphasized. The second listening extract is from a seminar in which criteria for choosing a business location are discussed.

Skills focus

Listening

- understanding speaker emphasis

Speaking

- asking for clarification
- responding to queries and requests for clarification

Vocabulary focus

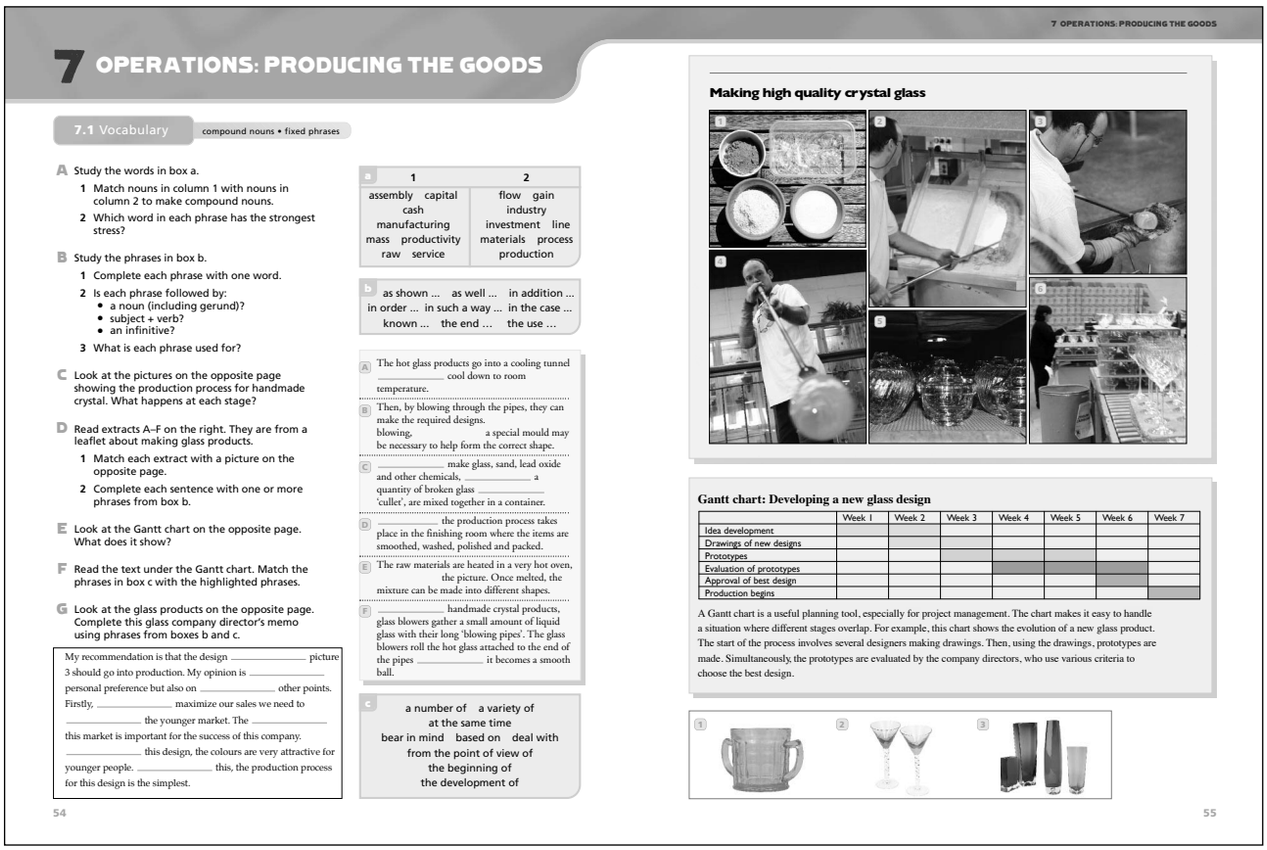
- compound nouns
- fixed phrases from business studies
- fixed phrases from academic English
- common lecture language

Key vocabulary

See also the list of fixed phrases from academic English in the *Vocabulary bank* (Course Book page 60).

assembly line	lean production	quality
batch production	linear	raw materials
capital (n)	locate	resource (n)
cash flow	location	revenue
component	manufacturing	scheduling
continuous	mass production	sequence (n and v)
delay (n)	method (n)	simultaneously
design (n and v)	operation	supply (n and v)
fixed cost	planning	supply chain
flow production	process (n)	value added
ingredient	productivity	variable costs
investment	project management	
job production	prototype	

7.1 Vocabulary



7 OPERATIONS: PRODUCING THE GOODS

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7.1 Vocabulary compound nouns • fixed phrases

A Study the words in box a.
1 Match nouns in column 1 with nouns in column 2 to make compound nouns.
2 Which word in each phrase has the strongest stress?

B Study the phrases in box b.
1 Complete each phrase with one word.
2 Is each phrase followed by:
• a noun (including gerund)?
• subject + verb?
• an infinitive?
3 What is each phrase used for?

C Look at the pictures on the opposite page showing the production process for handmade crystal. What happens at each stage?

D Read extracts A–F on the right. They are from a leaflet about making glass products.
1 Match each extract with a picture on the opposite page.
2 Complete each sentence with one or more phrases from box b.

E Look at the Gantt chart on the opposite page. What does it show?

F Read the text under the Gantt chart. Match the phrases in box c with the highlighted phrases.

G Look at the glass products on the opposite page. Complete this glass company director's memo using phrases from boxes b and c.

My recommendation is that the design _____ picture 3 should go into production. My opinion is _____ personal preference but also on _____ other points. Firstly, _____ maximize our sales we need to _____ the younger market. The _____ this market is important for the success of this company. _____ this design, the colours are very attractive for younger people. _____ this, the production process for this design is the simplest.

a

1	2
assembly	flow
capital	gain
cash	industry
manufacturing	investment
mass	line
productivity	materials
raw	process
service	production

b as shown ... as well ... in addition ... in order ... in such a way ... in the case ... known ... the end ... the use ...

A The hot glass products go into a cooling tunnel _____ cool down to room temperature.

B Then, by blowing through the pipes, they can make the required designs. blowing, _____ a special mould may be necessary to help form the correct shape.

C _____ make glass, sand, lead oxide and other chemicals, _____ a quantity of broken glass _____ 'cullet', are mixed together in a container.

D _____ the production process takes place in the finishing room where the items are smoothed, washed, polished and packed.

E The raw materials are heated in a very hot oven, _____ the picture. Once melted, the mixture can be made into different shapes.

F _____ handmade crystal products, glass blowers gather a small amount of liquid glass with their long 'blowing pipes'. The glass blowers roll the hot glass attached to the end of the pipes _____ it becomes a smooth ball.

c a number of a variety of at the same time bear in mind based on deal with from the point of view of the beginning of the development of

54

Making high quality crystal glass

Gantt chart: Developing a new glass design

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Idea development							
Drawings of new designs							
Prototypes							
Evaluation of prototypes							
Approval of best design							
Production begins							

A Gantt chart is a useful planning tool, especially for project management. The chart makes it easy to handle a situation where different stages overlap. For example, this chart shows the evolution of a new glass product. The start of the process involves several designers making drawings. Then, using the drawings, prototypes are made. Simultaneously, the prototypes are evaluated by the company directors, who use various criteria to choose the best design.

55

General note

Read the *Vocabulary bank* at the end of the Course Book unit. Decide when, if at all, to refer your students to it. The best time is probably at the very end of the lesson or the beginning of the next lesson, as a summary/revision.

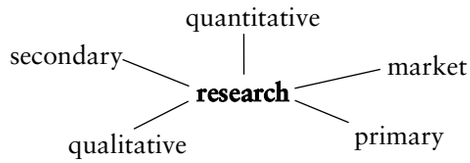
Lesson aims

- understand and use some general academic fixed phrases
- understand and use fixed phrases and compound nouns from the discipline

Introduction

1 Revise some noun phrases (noun + noun, adjective + noun) from previous units. Give students two or three minutes to make word stars with a base word, trying to find as many possible combinations as they can (preferably without having to look at dictionaries).

For example:



Other base words which could be used are *job*, *company*, *goods*, *management*. If they are stuck for ideas, tell them to look back at previous units.

2 Introduce the topic of the lesson by looking at the pictures of glass objects. Discuss what students know about the glass production process. How are things like vases and drinking glasses made?

Exercise A

Set for individual work and pairwork checking. Feed back with the whole class, making sure that the stress pattern is correct. Ask students to suggest other fixed phrases which could be made using the words in column 2.

Answers

Model answers:

a'ssembly line

capital in'vestment

'cash flow

manu'facturing process

project 'management

produc'tivity gain

i'dea development

'service industry

Exercise B

1/2 Set for individual work and pairwork checking. Feed back with the whole class, building the first three columns of the table in the Answers section on the board.

3 Add the fourth column with the heading 'Use to …'. Give an example of the kind of thing you are looking for, i.e., a phrase which can describe why you would choose to use this fixed phrase. Elicit suggestions from the students to complete the table, supplying the information yourself if students don't know the answer. If students are not sure about the meaning of some of the phrases, give them some example sentences and tell them that you will look further at how they are used shortly. Leave the table on the board as you will return to it.

Answers

Model answers:

Phrase		**Followed by …**	**Use to …**
as shown	in	noun	indicate a diagram or table
as well	as	noun/gerund	add information
in addition	to	noun/gerund	add information
in order	to	infinitive	give the purpose for doing something
in such a way	that*	subject + verb	give the result of doing something
in the case	of	noun/gerund	mention something
known	as	noun	give the special name for something
the end	of	noun	refer to the end of something
the use	of	noun	refer to the use of something

**as to* is also possible after *in such a way*, although in this exercise, one word is required

Exercise C

Set for pairwork. Students should try to identify what each picture represents. One pair can describe each picture to the whole class. On the board, build up as many key words to describe the process as students can come up with. If students don't know some important words, tell them they will meet them shortly.

Answers

Answers depend on the students.

Exercise D

Explain that the information from the leaflet goes with the pictures they have just discussed. Each extract (A–F) goes with one picture. Students should first read the extracts, checking words they can't guess in the dictionary. They should not pay attention to the spaces at this point.

1 Set for pairwork. Feed back with the whole class. Add any key words which might have been useful in Exercise C to the board.

2 Set for individual work. Refer back to the table in Exercise B, which will help students to choose the correct phrase. Feed back with the whole class.

Answers

Model answers:

1 C	In order to make glass, sand, lead oxide and other chemicals, as well as a quantity of broken glass known as 'cullet', are mixed together in a container.
2 E	The raw materials are heated in a very hot oven, as shown in the picture. Once melted, the mixture can be made into different shapes.
3 F	In the case of handmade crystal products, glass blowers gather a small amount of liquid glass with their long 'blowing pipes'.The glass blowers roll the hot glass attached to the end of the pipes in such a way that it becomes a smooth ball.
4 B	Then, by blowing through the pipes, they can make the required designs. In addition to blowing, the use of a special mould may be necessary to help form the correct shape.
5 A	The hot glass products go into a cooling tunnel in order to cool down to room temperature.
6 D	The end of the production process takes place in the finishing room where the items are smoothed, washed, polished and packed.

If you wish, ask students to return to the table in Exercise B and write one sentence for each of the fixed phrases to show their meaning. If you can put this into the context of a production process which students are very familiar with, such as a recipe, so much the better.

Exercise E

Introduce the Gantt chart – if students have not seen one before – by saying that it is a highly important tool in project management. It shows how different stages in a process might overlap.

Set for pairwork discussion. Feed back with the whole class, making sure that students understand the concept behind the chart. Do not correct or confirm students' views of the content at this point.

Subject note

The Gantt chart was the invention of Henry Laurence Gantt (1861–1919), who was a mechanical engineer. Gantt developed his charts in the early 20th century. His invention was hugely important in management then as well as now. It can be used for large-scale construction projects as well as for small pieces of work that an individual person may have to do.

Exercise F

Set for individual work and pairwork checking. Students should use their dictionaries if they are not sure of the meaning of the phrases. Note that some phrases can be used for the same thing – it is a good idea to use a different word to avoid repetition. Ask students to say which sentence goes with which part of the chart. Which part of the diagram is not mentioned?

Answers

Model answers:

A Gantt chart is a useful planning tool, especially (*for*) from the point of view of project management. The chart makes it easy to (*handle)* deal with a situation where (*different*) a number of stages overlap. For example, this chart shows (*the evolution of*) the development of a new glass product. (*The start of*) The beginning of the process involves (*several*) a number of designers making drawings. Then, (*using*) based on the drawings, prototypes are made. (*Simultaneously*) At the same time, the prototypes are evaluated by the company directors, who (*use*) bear in mind (*various*) a number of/a variety of criteria to choose the best design.

Language note

The fixed phrases here are used in a situation which describes a series of chronological stages. However, the same words can be used when writing or talking in more general abstract academic terms, for example when introducing an essay or lecture or piece of research. This use of these words will be covered later in the unit.

Exercise G

Set for pairwork. Feed back with the whole class.

Answers

Model answers:

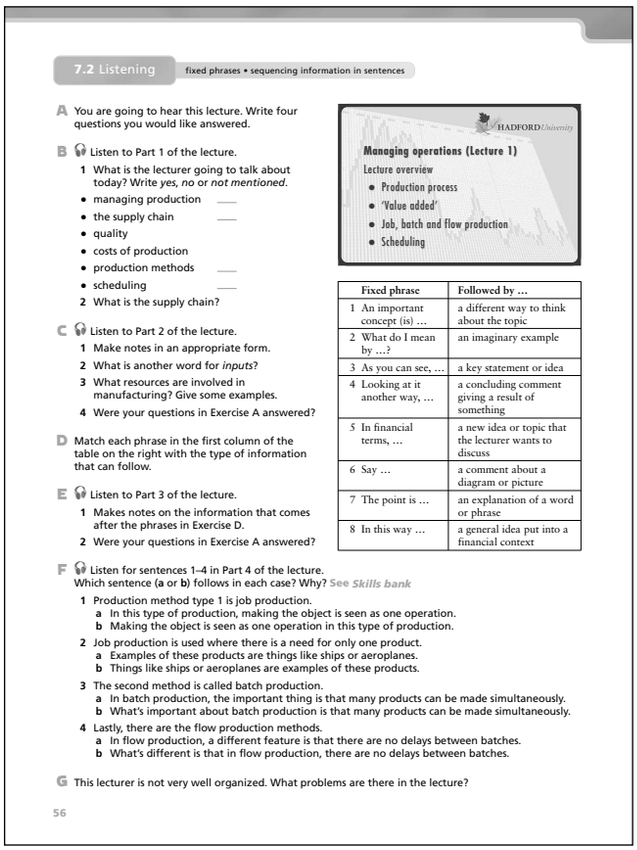
My recommendation is that the design (as) shown in picture 3 should go into production. My opinion is based on personal preference but also on a number of other points. Firstly, in order to maximize our sales we need to bear in mind the younger market. The development of this market is important for the success of this company. In the case of this design, the colours are very attractive for younger people. In addition to/ as well as this, the production process for this design is the simplest.

Closure

Tell students to cover the text and then describe:

- the typical main stages of a design process, e.g., glass-making
- what a typical Gantt chart looks like and what it includes

7.2 Listening



7.2 Listening — fixed phrases • sequencing information in sentences

A You are going to hear this lecture. Write four questions you would like answered.

B Listen to Part 1 of the lecture.

1 What is the lecturer going to talk about today? Write *yes*, *no* or *not mentioned*.

- managing production ___
- the supply chain ___
- quality
- costs of production
- production methods ___
- scheduling ___

2 What is the supply chain?

C Listen to Part 2 of the lecture.

1 Make notes in an appropriate form.
2 What is another word for *inputs*?
3 What resources are involved in manufacturing? Give some examples.
4 Were your questions in Exercise A answered?

D Match each phrase in the first column of the table on the right with the type of information that can follow.

E Listen to Part 3 of the lecture.

1 Makes notes on the information that comes after the phrases in Exercise D.
2 Were your questions in Exercise A answered?

F Listen for sentences 1–4 in Part 4 of the lecture. Which sentence (**a** or **b**) follows in each case? Why? See *Skills bank*

1 Production method type 1 is job production.
 a In this type of production, making the object is seen as one operation.
 b Making the object is seen as one operation in this type of production.
2 Job production is used where there is a need for only one product.
 a Examples of these products are things like ships or aeroplanes.
 b Things like ships or aeroplanes are examples of these products.
3 The second method is called batch production.
 a In batch production, the important thing is that many products can be made simultaneously.
 b What's important about batch production is that many products can be made simultaneously.
4 Lastly, there are the flow production methods.
 a In flow production, a different feature is that there are no delays between batches.
 b What's different is that in flow production, there are no delays between batches.

G This lecturer is not very well organized. What problems are there in the lecture?

HADFORD University
Managing operations (Lecture 1)
Lecture overview
- Production process
- 'Value added'
- Job, batch and flow production
- Scheduling

Fixed phrase	Followed by …
1 An important concept (is) …	a different way to think about the topic
2 What do I mean by …?	an imaginary example
3 As you can see, …	a key statement or idea
4 Looking at it another way, …	a concluding comment giving a result of something
5 In financial terms, …	a new idea or topic that the lecturer wants to discuss
6 Say …	a comment about a diagram or picture
7 The point is …	an explanation of a word or phrase
8 In this way …	a general idea put into a financial context

56

Lesson aims

- improve comprehension through recognition of fixed phrases and what follows them in terms of words/type of information
- understand how information can be sequenced in different ways within a sentence, e.g., for emphasis (see *Skills bank*)

Further practice in:

- understanding fractured text

General note

Read the *Skills bank – 'Given' and 'new' information in sentences* at the end of the Course Book unit. Decide when, if at all, to refer students to it. The best time, as before, is probably at the very end of the lesson or the beginning of the next lesson, as a summary/revision. Alternatively, use the *Skills bank* in conjunction with Exercise F.

Introduction

Review key vocabulary by writing a selection of words from Lesson 1 on the board and asking students to put them into phrases of two or more words.

Exercise A

Remind students about preparing for a lecture. If you wish, review Unit 1 *Skills bank – Making the most of lectures*. Remind students that, when they begin their talks, lecturers usually provide their listeners with an outline in order to aid comprehension. Elicit from the students the kinds of signpost words lecturers might use (e.g., *To start with, … , Firstly, … , I'll begin/start by …ing, discuss, examine,* etc.). If necessary, refer students to Unit 5.

Refer students to the lecture slide. Tell them to look at the title and bullet points and to list ideas/make questions for each bullet point. At this stage do not explain any words from the slide, or allow students to check in their dictionaries, as the meanings will be dealt with in the lecture. Set the exercise for pairwork.

Feed back with the whole class: ask several students to read out their questions. Write some of the questions on the board.

Exercise B

Tell students they are going to hear the introduction to the lecture – not the whole thing. Give students time to read questions 1 and 2. Remind them they will only hear the recording once. Play Part 1. Allow students to compare their answers.

Feed back. Confirm the correct answers. Note that 'scheduling' is mentioned on the slide, but not in the introduction, so we have no idea if this will be covered or not.

Answers

Model answers:

1

managing production	yes
the supply chain	no
quality	no
costs of production	no
production methods	yes
scheduling	not mentioned

2 The supply chain is the flow of resources through the stages of getting the raw materials, making the products, to getting the products to the consumer.

Transcript 1.29

Part 1

Good morning, everyone. What I'm going to talk about today is the core activity of business: that is, how the business does what it does. In other words, how does a company manage its production processes? Bearing in mind that this process also depends on many other operations, beginning with getting raw materials. Plus, of course, transporting the finished products to a place where they can be sold. This whole operational sequence is also known as the 'supply chain'. What I mean is ... it's everything from getting the raw materials, making the products, to getting the products to the consumer. It's the flow of resources through these stages. Anyway, we'll look at the supply chain later on, I mean, another time.

So, er … in later lectures, we'll also go on to consider how companies balance the quality of their goods or services with the need to control costs of production. Today, however, we will deal with production processes and methods.

Exercise C

Refer students to the first point on the lecture slide ('production process'). Ask students to suggest an appropriate type of notes. The key word here is process, which should instantly trigger the idea of a flowchart (see Unit 1).

Give students time to read the questions. Ask if they remember the model of business given in Unit 1. Can they suggest the other key words which accompanied *input?* (i.e., *transformation* and *output*). Write these on the board. Play Part 2.

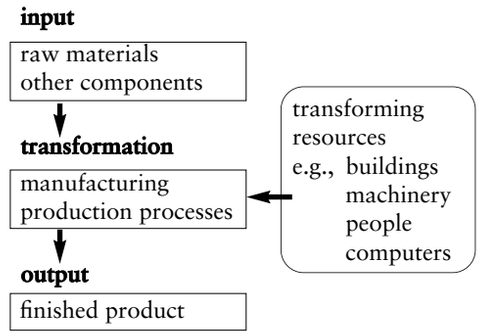
Put students in pairs to compare their diagrams and discuss the questions. With the whole class, ask students how many answers to their questions in Exercise A they heard.

Build the flowchart from the Answers section on the board, at the same time checking the answers to questions 2 and 3, and eliciting synonyms for the words *transformation* (manufacturing and/or production processes) and *output* (finished products).

Answers

Model answers:

1



2 Resources.

3 Buildings, machinery, computers, people.

4 Answers depend on students' questions.

Transcript 1.30

Part 2

As we have seen in an earlier session, the production process can be thought of as input, transformation and output. As we know, the inputs include all the raw materials and other components that are needed for the transforming, or manufacturing, process. Now, another term for these inputs is *resources*. Of course, as well as the raw material resources, the production processes themselves will also involve resources. In other words, the buildings, machinery, computers and people that are necessary to carry out the production – or transforming – processes. In this case, we call these resources the 'transforming resources'. And then, finally, as we saw previously, at the end of the manufacturing process, we have the output – or finished product.

Exercise D

Explain that these are common phrases in an academic context such as a lecture. Knowing the meaning of the phrases will help a lot with comprehension. Make sure students understand that the items in the second column are not in the correct order.

Set for individual work and pairwork checking. Tell students to check the meaning of any words they don't know in a dictionary. They should be able to guess the meanings of the phrases, even if they don't actually know the phrases.

Feed back with the whole class, completing the first two columns of the chart in the Answers section for Exercise E on the board. (Alternatively, make an OHT from Resource 7D in the additional resources section.) Once the 'Followed by …' column is completed, this will act as a predictive support for Part 3 of the lecture.

Methodology note

Two-column activities are good for pair checking and practice. Once students have got the correct answers they can test each other in pairs. Student A covers the first column and tries to remember the phrases, then B covers the second column and tries to remember the purpose of each phrase.

You can then check memory by getting students to close their books and giving a phrase; students (as a group or individually) must give its purpose. Then change roles.

Exercise E

1 Tell students that in the next part of the lecture they will hear the phrases in Exercise D. They know now what *type* of information is likely to follow. Now they must try to hear what *actual* information is given. If you wish, photocopy the table in the additional resources section (Resource 7D) for students to write their answers on.

Do the first one as an example. Play the first sentence and stop after '*value added*'. Ask students: *What is the important concept?* (Answer: '*value added*'.)

Play the rest of the recording, pausing briefly at the points indicated by a // to allow students to make notes. Put students in pairs to check their answers.

Feed back with the whole class, asking questions based on the words in the 'Followed by ...' column. For example:

After phrase number 2, what is the word or phrase that is explained?

After phrase number 3, what is the diagram that is commented on?

2 Refer back to students' questions in Exercise A. Discuss with the whole class whether they heard any answers to their questions.

Answers

1 Model answers: see table below.

2 Answers depend on students' questions.

Transcript 1.31

Part 3

Now, an important concept in business is the notion of 'value added'. What do I mean by value added? Well, to help you understand this idea clearly, can you look for a moment at the leaflet I have given you from the Monckton Crystal Company? // As you can see, the ingredients for making glass – i.e., sand, lead oxide and other chemicals – go though several stages of production in order to be made into beautiful glass objects that customers will want to pay money for. // However, looking at it another way, when a business makes raw materials into something else, it is actually 'adding value' to the raw materials. In fact, at each *stage* of production, value is added to the raw materials. // In financial terms, we can calculate added value by comparing the cost of the raw materials and the price which the goods are actually sold for. //

Let's look at an example of this. Say the company buys in some raw materials for £3,000. From these materials, the company makes 2,000 glass products which it sells for £4 each. The income from sales will be £8,000. Subtract the cost of the raw materials from the income from sales. The difference between these two figures is £5,000, and that's the 'value added'. //

Why is value added so important? Well, the point is that if companies know exactly which stages of production add the most or least value, then they can develop and improve their products and their production methods. // In this way they can maximize the benefits of the production operation to the business.

	Fixed phrase	Followed by …	Actual information (suggested answers)
1	An important concept (is) …	a new idea or topic that the lecturer wants to discuss	value added
2	What do I mean by …?	an explanation of a word or phrase	explanation of value added
3	As you can see, …	a comment about a diagram or picture	the glass-making process
4	Looking at it another way, …	a different way to think about the topic	value is added to the raw materials in the production process
5	In financial terms, …	a general idea put into a financial context	added value can be calculated financially
6	Say …	an imaginary example	some examples of figures for costs of raw materials, number of products and income from sales
7	The point is …	a key statement or idea	value added helps companies to improve products and production methods
8	In this way ...	a concluding comment giving a result of something	the benefits of production can be maximized

Exercise F

The purpose of this exercise is to look at how information tends to be structured in sentences. It also requires very close attention to the listening text.

Before listening, allow students time to read through the sentences. In pairs, set them to discuss which sentence (**a** or **b**) they think will follow the numbered sentences.

Play Part 4 all the way through. Students should choose sentence **a** or **b**. Put them in pairs to check and discuss why **a** or **b** was the sentence they heard.

Feed back with the whole class. Deal with sentences 1 and 2 first. Tell students that all the sentences are correct, but sentence **a** 'sounds better' when it comes after the first sentence. This is because of the way that sentences go together and the way in which information is organized in a sentence. Draw the table below on the board. Show how the underlined words in the second sentence have been mentioned in the first sentence. In the second sentence the underlined words are 'old' or 'given' information. When sentences follow each other in a conversation (or a piece of writing), usually the 'given' information comes in the first part of a sentence.

Now look at sentences 3 and 4. These are different. The normal choice would be the **a** sentences. However, here the speaker wanted to emphasize the idea of 'important' and 'different'. So a *Wh~* cleft sentence structure was used, which changes the usual order of information. Show this on the table as below. This 'fronting' of information has the effect of special focus for emphasis.

Language note

In English, important information can be placed at the beginning or at the end of a sentence. There are two types of important information. The first part of the sentence contains the topic and the second part contains some kind of information or comment about the topic. Usually the comment is the more syntactically complicated part of the sentence.

Once a piece of text or a piece of conversation (i.e., a piece of discourse) has gone beyond the first sentence, a 'given'/'new' principle operates. Information which is 'given', in other words that has already been mentioned, goes at the beginning of the sentence. Normally speaking, information which is new goes at the end of the sentence. So in the second sentence of a piece of discourse, an aspect of the comment from the previous sentence may become the topic. Thus the topic of the second sentence, if it has already been mentioned in the previous sentence, is also 'given'. Of course, the given information may not be referred to with exactly the same words in the second sentence. Other ways to refer to the given information include reference words (*it, he, she, this, that, these, those*, etc.) or vocabulary items with similar meanings.

Information structure is covered in the *Skills bank* in the Course Book.

First sentence		Second sentence	
		Given information	New information
1 Production method type 1 is job production.		**a** In this type of production, … one operation.	… making the object is seen as
2 Job production is used when there is a need for only one product.		**a** Examples of these products, …	… are things like ships or aeroplanes.
3 The second method is called batch production.	normal order	**a** In batch production, …	… the important thing is that many products can be made simultaneously.
	special focus	**b** What's important about batch production is …	… that many products can be made simultaneously.
4 Lastly, there are the flow production methods.	normal order	**a** In flow production, …	… a different feature is that there are no delays between batches.
	special focus	**b** What's different is …	… that in flow production, there are no delays between batches.

Further examples of different ways to 'front' information and more practice will be given in Lesson 3.

Transcript 1.32

Part 4

Now … er … let's see … oh dear, I see we're running short of time … but perhaps I *should* just say something about production methods.

There are three main types of production method. To start with, production method type 1 is *job production*. In this type of production, making the object is seen as one operation. So, because it's one operation, it has to be finished before the next one can start. Job production is used where there is a need for only one product. Examples of these products are things like ships or aeroplanes. In other words, very big things. In the early days, cars were made like this, too, before Henry Ford came along with his mass production ideas. Projects with one customer in mind can also be seen as a type of job production: for example, building an extension to a house, or repairing a car.

On the other hand, making one thing at a time is clearly not very economical. So the second method is called *batch production*. What's important about batch production is that many products can be made simultaneously. It's what happens, for example, in a bakery, where a baking company will make, say, 50 cakes all at the same time, and then start the process again with another 50, and so on. Batch production is suitable for products such as food or clothes. The glasses that we have looked at are also made in batches. At the same time, disadvantages of this system are that sometimes people have to wait around for a batch to finish before they can start a new batch, so the process is not continuous.

Lastly, there are the *flow production* methods. What's different is that in flow production, there are no delays between batches while workers wait for each batch to be finished. Instead, the products move along an assembly line and are made in a continuous, linear sequence as each worker does his or her part. This method of production is of course associated with car manufacturing, mechanical parts for machines, and products such as toys.

Now … oh dear, I was going to mention the advantages and disadvantages of these methods of production, but … ah … I see that time is moving on. So instead, I'm going to …

Exercise G

Set for pairwork discussion. Feed back with the whole class. Note that the lecture has not yet finished. The last part will be heard in Lesson 3.

Answers

Model answers:

Scheduling was not mentioned in the introduction, but is on the lecture slide.

The lecturer is running out of time.

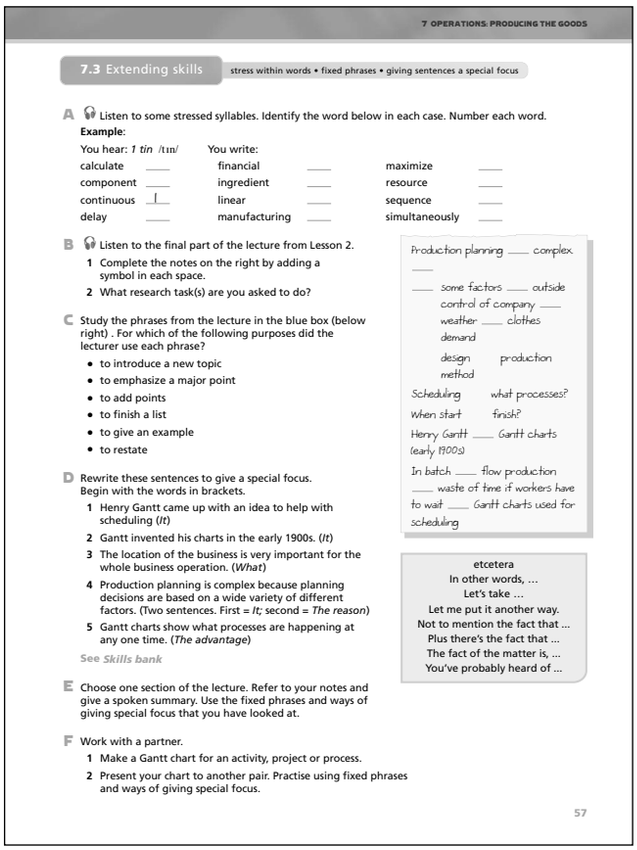
The lecturer has not had time to talk about advantages and disadvantages of the different production methods.

Closure

Ask students to group these products according to whether they think they are most likely to be made with job, batch or flow production methods.

bicycles	houses
biscuits	music CDs
bridges	public buildings
buses	restaurant meals
cakes	roads
cameras	shirts
cheese	TVs
computers	washing machines
frozen pizzas	watches

7.3 Extending skills



7 OPERATIONS: PRODUCING THE GOODS

7.3 Extending skills — stress within words • fixed phrases • giving sentences a special focus

A Listen to some stressed syllables. Identify the word below in each case. Number each word.

Example:

You hear: *1 tin* /tɪn/ You write:

calculate ___	financial ___	maximize ___
component ___	ingredient ___	resource ___
continuous 1	linear ___	sequence ___
delay ___	manufacturing ___	simultaneously ___

B Listen to the final part of the lecture from Lesson 2.

1 Complete the notes on the right by adding a symbol in each space.

2 What research task(s) are you asked to do?

Production planning ___ complex ___

___ some factors ___ outside control of company ___ weather ___ clothes demand

design production method

Scheduling what processes?

When start finish?

Henry Gantt ___ Gantt charts (early 1900s)

In batch ___ flow production ___ waste of time if workers have to wait ___ Gantt charts used for scheduling

C Study the phrases from the lecture in the blue box (below right) . For which of the following purposes did the lecturer use each phrase?

- to introduce a new topic
- to emphasize a major point
- to add points
- to finish a list
- to give an example
- to restate

D Rewrite these sentences to give a special focus. Begin with the words in brackets.

1 Henry Gantt came up with an idea to help with scheduling (*It*)

2 Gantt invented his charts in the early 1900s. (*It*)

3 The location of the business is very important for the whole business operation. (*What*)

4 Production planning is complex because planning decisions are based on a wide variety of different factors. (Two sentences. First = *It*; second = *The reason*)

5 Gantt charts show what processes are happening at any one time. (*The advantage*)

See *Skills bank*

etcetera
In other words, ...
Let's take ...
Let me put it another way.
Not to mention the fact that ...
Plus there's the fact that ...
The fact of the matter is, ...
You've probably heard of ...

E Choose one section of the lecture. Refer to your notes and give a spoken summary. Use the fixed phrases and ways of giving special focus that you have looked at.

F Work with a partner.

1 Make a Gantt chart for an activity, project or process.

2 Present your chart to another pair. Practise using fixed phrases and ways of giving special focus.

57

Lesson aims

- extend knowledge of fixed phrases commonly used in lectures
- give sentences a special focus (see *Skills bank*)

Further practice in:

- stress within words

Introduction

As in Units 3 and 5, tell students to ask you questions about the information in the lecture in Lesson 2 as if you were the lecturer. Remind them about asking for information politely. If they need to revise how to do this, tell them to look back at the *Skills bank* for Unit 3.

Exercise A

Remind students of the importance of stressed syllables in words (see the teaching notes for Unit 3, Lesson 3, Exercise A). Play the recording, pausing after the first few to check that students understand the task.

Feed back, perhaps playing the recording again for each word before checking. Ideally, mark up an OHT of the words. Finally, check students' pronunciation of the words.

Answers

calculate	7
component	10
continuous	1
delay	8
financial	11
ingredient	2
linear	9
manufacturing	5
maximize	12
resource	4
sequence	6
simultaneously	3

Transcript 1.33

1 con'tinuous
2 in'gredient
3 simul'taneously
4 re'source
5 manu'facturing
6 'sequence
7 'calculate
8 de'lay
9 'linear
10 com'ponent
11 fi'nancial
12 'maximize

Exercise B

Write these words on the board and ask students to say what symbols you can use for them when taking notes. Put the symbols on the board.

∵	because
e.g.	for example
=	is, means
→	invented, leads to*
∴	therefore, so
& +	and
numbers or bullet points	a list
/	or

*the arrow has a wide range of possible meanings, including *made*, *produced*, *did*, *causes*, *results in*, etc.

Tell students they will hear the final part of the lecture. Ask them to read the notes through. Remind them also to listen for their research task. Play Part 5.

Put students in pairs to compare their symbols. Feed back with the whole class, if possible using an OHT of the notes. Discuss acceptable alternatives, e.g., *start & finish* instead of *start / finish*.

Answers

Model answers:

1 Production planning = complex ∴
   1) some factors = outside control of company
      e.g. weather → clothes demand
   2) design → production method
   Scheduling = what processes? When start / finish?
   Henry Gantt → Gantt charts (early 1900s)
   In batch & flow production = waste of time if workers have to wait ∴Gantt charts used for scheduling
2 They must research the criteria for business location.

Transcript 1.34

Part 5

I'm going to finish with some comments on the planning of production – in other words, scheduling.

Now, the fact of the matter is, it's a highly complex task to plan production. The reason for this is that planning decisions are based on a wide variety of different factors – not to mention the fact that some of these factors are totally outside the control of the company. Let's take clothes: a change in the weather can affect the demand for clothes, which of course companies can't control. Plus there's the fact that the design of the product affects the type of production method, as we've just seen.

OK. Where was I ? Oh, yes … So scheduling means working out what the different processes are, when they start, when they finish, etcetera, in relation to other processes. You've probably heard about Gantt charts? It was Henry Gantt who came up with a very simple idea to help with scheduling – the Gantt chart. Many organizations use Gantt charts to help with organizing and planning these types of production methods. The advantage of Gantt charts is that they show what processes are happening at any one time. In batch and flow production, it is very expensive and a waste of time if workers have to wait for one job to finish before another one can start. So, although it was in the early 1900s that Gantt invented his charts, they are still very much used today.

To sum up, then, production must be carefully planned. Let me put it another way … Planning must take into account the necessary processes and variables if the company is to succeed.

Oh, I almost forgot to mention your research topics. OK, well, what's very important for the whole operation is the location of the business. So I'd like you to find out what are the main criteria that need to be borne in mind in deciding where to locate a business.

Exercise C

Set for pairwork. Feed back with the whole class. If necessary, play the relevant sections again. Ask for other phrases which have similar meanings, particularly from Lesson 3, and also from Unit 5. Build the table in the Answers section on the board. Accept any suitable words or phrases for the third column.

Answers

Model answers:
See table below.

Use	Fixed phrase	Other phrases
to introduce a new topic	You've probably heard of …	Now, an important concept is …
to make a major point	The fact of the matter is, …	Actually, … In fact, … The point is that ...
to add points	Not to mention the fact that … Plus there's the fact that …	also, and, too
to finish a list	et cetera	and so on
to give an example	Let's take …	For example, … e.g., … Let's look at an example of this. For instance, …
to restate	Let me put it another way. In other words, …	What I mean is ... That is to say, … By that I mean … To put it another way, …

Language note

The phrases in Exercise C are appropriate in speaking. Many are not suitable for written language, for which different phrases which should be used.

Exercise D

Students need to decide which word(s) should receive the particular focus and then try to rewrite the sentences. Depending on the class, they can work in pairs or individually first.

Feed back with the whole class. Take each sentence in turn. Ask for suggestions as to which aspect could receive special emphasis (actual words are underlined below). Accept any reasonable answers. Replay Part 5 at this stage if you wish students to check their answers. Note that:

- sentences 1, 2 and the first part of 4 use an *It* construction to give the special focus
- sentence 3 uses a *Wh~* cleft sentence already seen in Lesson 2
- sentences 4 and 5 introduce new, general words (often found in academic contexts) followed by *is* plus a *that* clause

Answers

Model answers:

1 Henry Gantt came up with an idea to help with scheduling. (*It*)

It was Henry Gantt who came up with an idea to help with scheduling.

2 Gantt invented his charts in the early 1900s. (*It*)

It was in the early 1900s that Gantt invented his charts.

3 The location of the business is very important for the whole business operation. (*What*)

What's very important for the whole operation is the location of the business.

4 Production planning is complex because planning decisions are based on a wide variety of different factors. (*Two sentences. First = 'It'; Second = 'The reason'*)

It's a complex task to plan production. The reason for this is that planning decisions are based on a wide variety of different factors.

5 Gantt charts show what processes are happening at any one time. (*The advantage*)

The advantage of Gantt charts is that they show what processes are happening at any one time.

After completing Exercises C and D, students can be referred to the *Vocabulary bank* and the *Skills bank* for consolidation and preparation for Exercise E.

Exercise E

Set the initial preparation for individual work. Students can refer to their notes in Lesson 2 (Exercises C and E) or the notes for completion in Lesson 3 (Exercise B). They should think about how they can use the phrases they have looked at, and ways of giving special focus/emphasis. (Note: They should not write out exactly what they are going to say in complete sentences and then read!)

Put students in pairs to give their oral summaries to each other, preferably pairing students who have chosen different sections to summarize.

Go around the class noting any problems or especially good examples of language use. You may wish to choose one or two individuals to give their summary to the whole class.

With the whole class, feed back any language or other difficulties which you noticed.

Exercise F

1 Set for pairwork. Suggest simple activities like making a cup of tea or a sandwich or writing an essay. Students should first list all the different processes and then decide how to order them and which processes overlap. They should make a Gantt chart and put the activities in it. They should decide what time units to use.

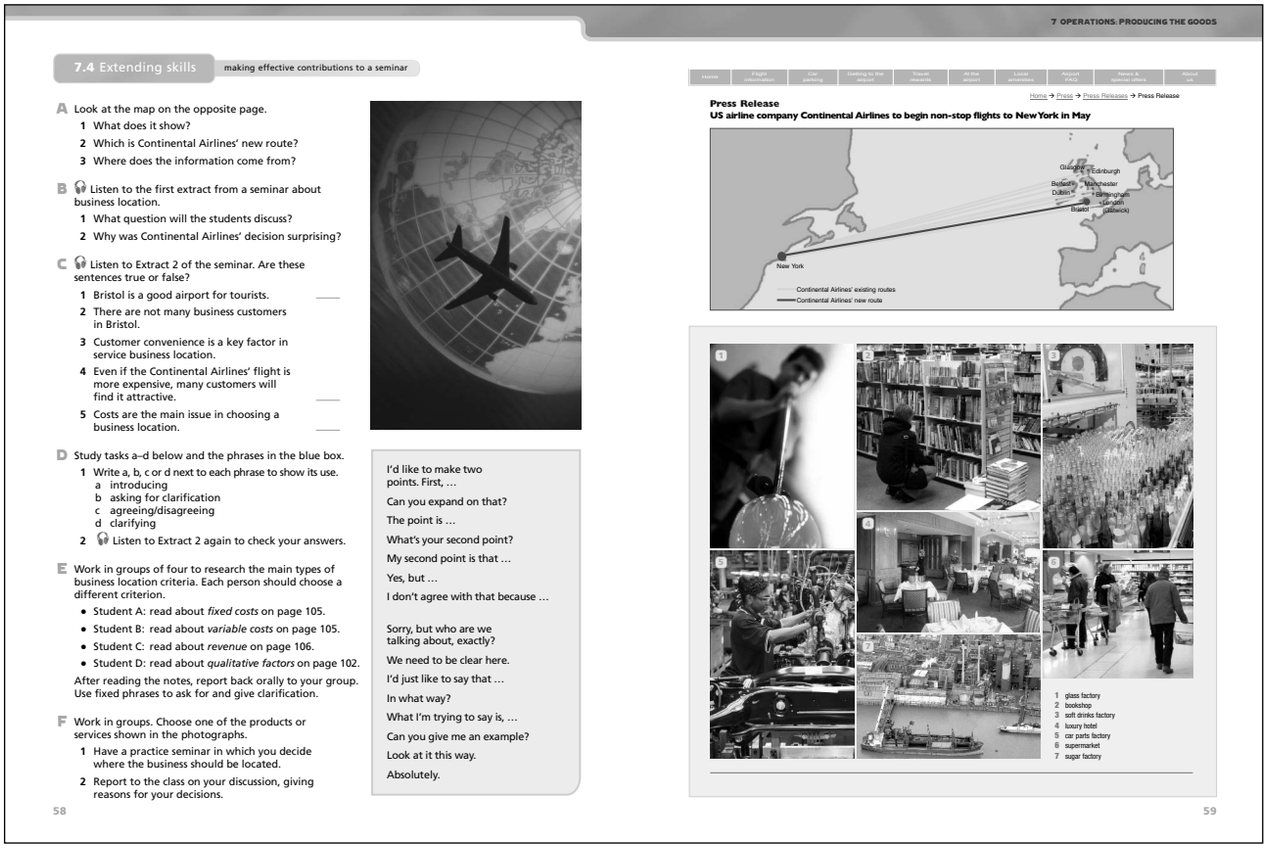
2 Put the pairs in groups of four to present their charts to each other.

Closure

Dictate some words for which students have learnt note-taking symbols or abbreviations such as *and, minus, approximately, less than, results in, therefore, because, etc., as, since, for example, approximately.* Students should write the symbol or abbreviation.

Remind them of the list of symbols and abbreviations at the back of the Course Book.

7.4 Extending skills



7 OPERATIONS: PRODUCING THE GOODS

7.4 Extending skills — making effective contributions to a seminar

A Look at the map on the opposite page.
1 What does it show?
2 Which is Continental Airlines' new route?
3 Where does the information come from?

B Listen to the first extract from a seminar about business location.
1 What question will the students discuss?
2 Why was Continental Airlines' decision surprising?

C Listen to Extract 2 of the seminar. Are these sentences true or false?
1 Bristol is a good airport for tourists. ____
2 There are not many business customers in Bristol.
3 Customer convenience is a key factor in service business location.
4 Even if the Continental Airlines' flight is more expensive, many customers will find it attractive. ____
5 Costs are the main issue in choosing a business location. ____

D Study tasks a–d below and the phrases in the blue box.
1 Write a, b, c or d next to each phrase to show its use.
a introducing
b asking for clarification
c agreeing/disagreeing
d clarifying
2 Listen to Extract 2 again to check your answers.

E Work in groups of four to research the main types of business location criteria. Each person should choose a different criterion.
- Student A: read about *fixed costs* on page 105.
- Student B: read about *variable costs* on page 105.
- Student C: read about *revenue* on page 106.
- Student D: read about *qualitative factors* on page 102.

After reading the notes, report back orally to your group. Use fixed phrases to ask for and give clarification.

F Work in groups. Choose one of the products or services shown in the photographs.
1 Have a practice seminar in which you decide where the business should be located.
2 Report to the class on your discussion, giving reasons for your decisions.

I'd like to make two points. First, …
Can you expand on that?
The point is …
What's your second point?
My second point is that …
Yes, but …
I don't agree with that because …

Sorry, but who are we talking about, exactly?
We need to be clear here.
I'd just like to say that …
In what way?
What I'm trying to say is, …
Can you give me an example?
Look at it this way.
Absolutely.

58

Home → Press → Press Releases → Press Release

Press Release
US airline company Continental Airlines to begin non-stop flights to New York in May

Glasgow, Edinburgh, Belfast, Manchester, Dublin, Birmingham, London (Gatwick), Bristol, New York
Continental Airlines' existing routes
Continental Airlines' new route

1 glass factory
2 bookshop
3 soft drinks factory
4 luxury hotel
5 car parts factory
6 supermarket
7 sugar factory

59

Lesson aims

- make effective contributions to a seminar:
  using pre-organizers – *I'd like to make two points; I don't agree with that because …*
  responding to queries by clarifying – *What I'm trying to say is …/What I meant was …*

Introduction

Revise phrases from the previous lessons. Give a word or phrase and ask students to give one with a similar meaning. Ask for phrases from the previous lesson which can be used to:

- introduce a new topic
- emphasize a major point
- add a point
- finish a list
- give an example

Exercise A

Set for pairwork discussion. Feed back.

Answers

Possible answers:

1 It shows several routes which Continental Airlines operates from New York to the UK.
2 The new route from Bristol to New York.
3 The headline comes from a press release.

Exercise B

Allow students time to read the two questions. Play Extract 1 once only. Check answers in pairs. Feed back with the whole class.

Answers

Model answers:

1 Why did Continental Airlines establish a new non-stop route from Bristol to New York in 2005?
2 They already had routes to several other places in the UK. At least two of these places are not far from Bristol (Birmingham and London). There are already many flights provided by other airlines to the USA from London airports.

Transcript 1.35

Extract 1

Now, as we know, the location of their operations is one of the most important decisions that companies have to make. I asked you to look at the case of Continental Airlines, which in 2005 established a new non-stop route from Bristol Airport in the south-west of the UK to New York. Why did they do this? They already had routes to several other places in the UK, including London (Gatwick) and Birmingham, which are not far away. Also, there are many other airlines flying from the London airports to the USA. So, let's have some views.

Exercise C

Allow students time to read the questions. Play Extract 2 straight through once while they mark the answers true or false. Check in pairs and/or with the whole class. Check any unknown vocabulary, such as *expand on, untapped potential*.

Answers

1	true	
2	false	Bristol is an important regional business centre.
3	true	
4	true	
5	false	There are many factors; other factors also mentioned are revenue and investment potential.

Transcript 1.36

Extract 2

Note: The underlining relates to Exercise D.

JACK: Well. I'd like to make two points. First, Bristol gives easy access to several popular tourist destinations.

LEILA: Can you expand on that, Jack?

JACK: Sure, Leila. Bristol is near Wales, and the south-west peninsula of the UK.

LEILA: So?

JACK: So the point is that both areas are famous for their beaches and natural beauty.

LECTURER: OK. So, what's your second point, Jack?

JACK: I was coming to that! My second point is that Bristol is an important regional business centre.

LEILA: Yes, but that's true for London, too. Even more so, I'd say. So there's no need to expand outside London.

MAJED: Well, I don't agree with that, Leila, because from what I've read, there's huge untapped potential for business customers based in or near Bristol.

EVIE: Sorry, but who are we talking about, exactly? People flying into the UK from the USA? Or people going to the USA?

LEILA: Yes, we need to be clear here. It must be both. Anyway, I'd just like to say that according to what I've read, in the case of a service industry like travel, convenience for customers is a major factor in location.

EVIE: In what way?

LEILA: Well, if you can bring your service nearer to the customer, you can charge a bit more. Also, you may be able at the same time to offer a more attractive service than the competitors.

EVIE: I don't get that. How can it be more attractive if it's more expensive?

LEILA: What I'm trying to say is, the company can charge more for their product but actually the customer might get the product more cheaply overall.

EVIE: I still don't understand. Can you give me an example, Leila?

LEILA: OK. Look at it this way. People who live near Bristol would have to travel to London or Birmingham to fly to the USA. That will cost them money – say, £100. If they go from Bristol they don't have to spend that money. If Continental Airlines charge £50 more for the flight than a flight from London, the customers still get the flight for £50 less.

MAJED: So everybody wins! It's all about money, in fact.

LECTURER: Absolutely. In making a decision on location, companies have to think about their fixed and variable costs, as well as the revenue they're likely to get from a particular site.

MAJED: Yes, and I'd just like to say something else. As I mentioned before, there are potentially a lot of business customers who might use the Bristol flight. So it's a good investment, as business usage is likely to increase in the future.

Exercise D

Check the meaning of 'introducing' phrases. This means a phrase to use before your main statement to announce that you are going to say something. It may also signal how much you are going to say, or how important you think what you are going to say is.

1 Set for individual work and pairwork checking. Feed back.
2 Play Extract 2 from Exercise C. Ask students to tell you to stop when they hear each phrase (underlined in the transcript above). Check what kind of phrase they think it is. Get students to repeat the phrase to copy the intonation.

Answers

Model answers:

I'd like to make two points. First, …	a
Can you expand on that?	b
The point is …	d
What's your second point?	b
My second point is that …	a
Yes, but …	c
I don't agree with that because …	c
Sorry, but who are we talking about, exactly?	b
We need to be clear here.	d
I'd just like to say that …	a
In what way?	b
What I'm trying to say is, …	d
Can you give me an example?	b
Look at it this way.	d
Absolutely.	c

Exercise E

With the whole class, revise asking for information. Tell students to look at the *Skills banks* in Unit 3 and Unit 5. Remind students also about reporting information to people (see Unit 3 *Skills bank*).

Set students to work in groups of four. Each student should choose one aspect of location and turn to the relevant page to make notes on the information. When everyone is ready they should feed back to their group, giving an oral report on the information. It's important that they do not simply read aloud the information, but use it to inform their speaking.

Alternatively, the research activity can be done as a 'wall dictation' as follows. Use Resource 7E in the additional resources section. Make large A3 (or A4) size copies of the location information (one type of research per page) and pin the sheets on the classroom walls. Each student should leave his/her seat and go to the wall to find the information he/she needs. Students should not write anything down: instead they should read and try to remember the information. Then they return to their group and tell them the information. If they forget something they can go back to the wall to have another look.

Circulate, encouraging students to ask for clarification and to use the appropriate phrases when giving clarification. Note where students are having difficulty with language and where things are going well. When everyone has finished, feed back to the class on points you have noticed while listening in to the discussions.

Exercise F

Move on from Exercise E to this simulation. Encourage students to make this as realistic as possible by choosing a product or service that they know or can identify with. The location could be in your area. If students decide on an international location, remind them that there will be other factors to consider such as language barriers, political stability, exchange rate fluctuations, and so on. If you wish, the whole class could work on the same product or service, but with the location decision discussed in groups.

Alternatively, you could have a 'pyramid discussion'. Choose one product or service for the whole class to debate and put students in pairs to discuss a suitable location. After a short while, the pair should join together with another pair. This group of four should then come to an agreement on a suitable location. The group of four should then join another group of four. One or two people from each group of eight should then present the decision and the reasons for the decision to the class. It will help their presentation if they use visual aids such as maps or diagrams. Finally, the whole class should try to reach agreement on the site decision, taking a vote if necessary.

Remind students about agreeing and agreeing, and about good and bad ways to contribute to seminar discussions (refer to Unit 5 if necessary).

While the representatives are presenting their group decisions, you should occasionally interrupt with a wrong interpretation so that students are forced to clarify their statements. Or you could ask for clarification.

Closure

Choose three cities in your country. Ask students to first discuss and then *describe* and *evaluate* the characteristics of each city according to the following:

- location
- logistics and transport systems
- people
- industries
- economy
- environment
- quality of life
- image
- cost of living

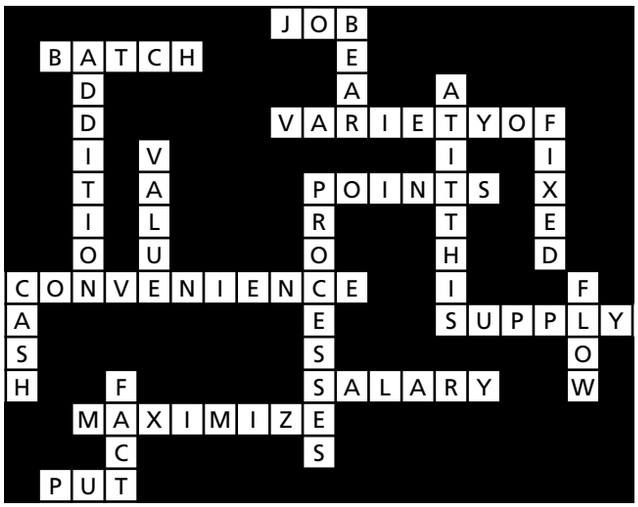
Extra activities

1 Work through the *Vocabulary bank* and *Skills bank* if you have not already done so, or as a revision of previous study.

2 Use the *Activity bank* (Teacher's Book additional resources section, Resources 7A–C).

A Set the crossword for individual work (including homework) or pairwork.

Answers



B Put students in pairs to play 'word battleships'. The idea behind this game is that each word represents a battleship, which is 'sunk' when all the letters of the word have been located; the aim of the game is to be the first to sink all the ships.

Give Resource 7B to Student A; give Resource 7C to Student B. Make sure they can't see each other's information. Students take turns to ask about individual squares, e.g., *Is there a letter in (1C)?* The other student answers either *No* or *Yes, it's (F).* They mark their empty grid accordingly – either putting a letter or a cross in each square. If a student finds a letter, he/she can continue asking until he/she gets a negative answer (i.e., an 'empty' square). Students continue asking one question each until one of them thinks they have found a word, when they can say *Is the word … ?* The first student to find all their words is the winner.

The words for each category are:

Student A:

- four words for production types: *batch, flow, job, mass*
- two verbs ending in *~ate: calculate, evaluate*
- four words which can be nouns or verbs: *delay, design, handle, supply*

Student B:

- two ways to show an idea for a new product: *drawing, prototype*
- four types of cost from a location: *fixed, variable, loan, rent*
- two ways to refer to raw materials: *ingredients, resources*
- two words for the place of business: *location, site*

3 Make some statements about what you're going to do after the class and ask students to transform them into *Wh~* cleft sentences. For example:

I'm going to have a coffee after the class.

➔ *What you're going to do after the class is have a coffee.*

I might go to a film tonight.

➔ *What you might do tonight is go to a film.*

Put students in pairs to practise.