



# STROKOVNA TERMINOLOGIJA V TUJEM JEZIKU 1 – ENGLISH FOR MECHANICAL ENGINEERING

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Višješolski strokovni program: Strojništvo Učbenik: English for Mechanical Engineering

Gradivo za 1. letnik

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#### Lektorica:

Ivanka Stopar, prof. slov in ang. jezika

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CIP - Kataložni zapis o publikaciji
Narodna in univerzitetna knjižnica, Ljubljana

811.111'373.46:621(075.8)(0.034.2)

ŠTROVS-Gagič, Milena
Strokovna terminologija v tujem jeziku 1 - English for mechanical engineering [Elektronski vir]: gradivo za 1. letnik / Milena Štrovs Gagič. - El. knjiga. - Ljubljana: Zavod IRC, 2009. - (Višješolski strokovni program Strojništvo / Zavod IRC)

Način dostopa (URL): http://www.zavod-irc.si/docs/Skriti_dokumenti/ Strokovna_terminologija_v_tujem_jeziku_1Strovs.pdf. - Projekt Impletum

ISBN 978-961-6824-10-1
249675264
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Izdajatelj: Konzorcij višjih strokovnih šol za izvedbo projekta IMPLETUM

Založnik: Zavod IRC, Ljubljana.

Ljubljana, 2009

Strokovni svet RS za poklicno in strokovno izobraževanje je na svoji 120. seji dne 10. 12. 2009 na podlagi 26. člena Zakona o organizaciji in financiranju vzgoje in izobraževanja (Ur. l. RS, št. 16/07-ZOFVI-UPB5, 36/08 in 58/09) sprejel sklep št. 01301-6/2009 / 11-3 o potrditvi tega učbenika za uporabo v višješolskem izobraževanju.

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Gradivo je sofinancirano iz sredstev projekta Impletum 'Uvajanje novih izobraževalnih programov na področju višjega strokovnega izobraževanja v obdobju 2008–11'.

Projekt oz. operacijo delno financira Evropska unija iz Evropskega socialnega sklada ter Ministrstvo RS za šolstvo in šport. Operacija se izvaja v okviru Operativnega programa razvoja človeških virov za obdobje 2007–2013, razvojne prioritete 'Razvoj človeških virov in vseživljenjskega učenja' in prednostne usmeritve 'Izboljšanje kakovosti in učinkovitosti sistemov izobraževanja in usposabljanja'.

Vsebina tega dokumenta v nobenem primeru ne odraža mnenja Evropske unije. Odgovornost za vsebino dokumenta nosi avtor.

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# Dear Student,

The material in front of you is both a student's book and a workbook with lots of, hopefully, interesting and varied exercises (the symbol of a pencil will lead you into exercises: (a symbol of a hard-working student means you have obligations to fulfil and tasks to perform at home - you will do this through e-classroom if you are already using it otherwise in the old-fashioned way, on paper) which will help you understand and learn more about the area of mechanical engineering and also revise a little grammar.

The book includes different chapters, from more general ones to extremely specific and field-oriented, such as: introduction, different kind of companies, engineering, numbers and shapes, computer science, materials, tools, health and safety at work, automotive etc. As mentioned above, there are plenty of different exercises included.

At the end of each chapter there is a short summary and a few revision tasks. This way you will be able to revise each chapter before moving onto a new topic.

I hope the material in front of you will help you enter the world of technical English and be a challenge for further learning in this field.

Milena Štrovs-Gagič

#### 1 INTRODUCING AND MEETING PEOPLE

After this unit you will be able to introduce yourself properly, especially in business situations and learn how certain countries and different nations behave in business situations. You will be also able to use present forms and express ability, obligation, and permission and give advice.

So, how do we introduce ourselves? Have you ever met a person from another company and introduced yourself to them? Or have foreigners been introduced to you?

You can introduce yourself in different ways, for example you can say a few sentences about yourself:

Hello, my name is Jana Novak. I come from Ravne. I am 19 years old. I am a student at the college for mechanical engineering. I like my studies as I learn something new every day. I have several hobbies, I like swimming, skiing and other outdoor sports.

Hi, I'm Jure Vesel. I'm an engineer and I work in a very successful company, Metal Ravne. I have been employed for two years now. I really enjoy going to work in the morning as my job is challenging and there is never a dull moment. In my free time I like going out and socialising.



Introduce yourself in a similar way.

English people do not usually introduce themselves, except in impersonal introductions. For example:

I am Police Officer James, and I am arresting you for speeding along the motorway at 120 miles an hour.

"I'm Bill Rightwing, your co-pilot on this flight to New York.

I'm Samantha, your tour guide on this exciting tour to Cappadocia.

When you meet foreigners it is common to shake hands and use some polite phrases, such as: How do you do? (This is very formal and used with certain nations: such as the British or Japanese or when you are introduced to people who are much older or very high in the company hierarchy), It's a pleasure to meet you.; Nice to meet you.; I've been looking forward to meeting you. We use formal introductions on formal occasions. For

important business situations, meeting important people or (some!) weddings and funerals, formal language is safest. For example:

Mr Thimes, this is Professor Jackson. Professor Jackson. I'm pleased to meet you.

Mr Thimes, may I present Professor Jackson. How do you do?

Allow me to present Professor Jackson.

I'm delighted to meet you, Professor. My name is Bill Thimes.

General/Neutral introductions

Mr Thimes, do you know Professor Jackson? How are you, Professor?

Bill, this is Jessica Jordan. I'm pleased to meet you.

Bill Thimes, Jessica Jordan. It's nice to meet you.

Sometimes it is hard to know if you should use the first name, (Tom); the title (Professor) or the formal name (Professor Jackson). English people have the same problem! When you are not sure, use the more formal name, or just call the other person "you". Sometimes the other person will help you and say (for example) "Please call me Jessica". We use general introductions for people we might never meet again, for meetings which are not very important, or for meeting people like ourselves - for instance the people we will work with.

Role play a scene of introducing your schoolmates to one another: try to be formal.

Look at this dialogue between Martin, a student of mechanical engineering from Munich, Germany, who has come to Birmingham to do his work placement there. He is introduced to Mr. Brown by David Lynch, his mentor at the company. The dialogue is mixed up (except for the first line), try to put it in the correct order. After that practise it in groups of three:

David: Mr. Brown, this is Martin Schiller from Munich. Martin, this is Mr. Brown, head of this department.

Mr. Brown: I'm glad you liked it. And I hope you enjoy your time with us, too. Have you been shown around yet?

Martin: Yes, I did. It's very lovely here.

Mr. Brown: Hello Martin. Nice to meet you. Welcome to Birmingham. When did you get here?

Martin: No, not yet.

Mr. Brown: Good. And how was your journey?

Martin: It's a pleasure to meet you. Thank you. I arrived at 8 o'clock last night.

Mr. Brown: Well, then, I suggest David gives you a tour first and then we can discuss what you are going to do while you're here.

Martin: Oh, very good, thank you for asking. I came by car so I managed to see a bit of the country already.

Mr. Brown: I see. I hope you liked it. Martin: Right. I'll see you later, then.

Visit a web page that you know or like and try to find an example of proper business introduction (you can also make it up).

#### 1.1 MEETING PEOPLE

We already mentioned that different nationalities have different rules and several specifics. Below you can read a story that might help you behave appropriately when you travel on business. Although there are certain rules how to behave in a certain country it also depends on people you will be meeting, especially now when the globalization process brings all a lot closer day by day.

**Reading** (from New International English, Jones and Alexander, 2000)

Nobody actually wants to cause offence but, as business becomes ever more international, it is increasingly easy to get it wrong. There may be a single European market but it does not mean that managers behave the same in Greece as they do in Denmark.

In many European countries handshaking is an automatic gesture. In France good manners require that on arriving at a business meeting a manager shakes hands with everyone present. This can be a demanding task and, in a crowded room, may require gymnastic ability if the farthest hand is to be reached.

Handshaking is almost as popular in other countries – including Germany, Belgium and Italy. But Northern Europeans, such as the British and the Scandinavians, are not quite as fond of physical demonstrations of friendliness. But the situation is changing also in these countries and handshaking has become a routine. It is also not true that people from these countries are reserved and cold, but the fact is they are more and more open and extremely friendly.

In Europe the most common challenge is not the content of the food, but the way you behave as you eat. Some things are not just done. In France is a not good manner to raise tricky questions of business over the main course. Business has its place: after the cheese course. Unless you are prepared to eat in silence you have to talk about something – something, that is, other than business deal which you are chewing over in your head.

Italians give similar importance to the whole process of business entertaining. In fact, in Italy the biggest fear, as course after course appears, is that you entirely forget you are there on business. If you have the energy, you can always do the polite thing when the meal finally ends, and offer to pay. Then, after a lively discussion, you must remember the next polite thing to do – let your host pick up the bill.

In Germany, as you walk sadly back to your hotel room, you may wonder why your apparently friendly hosts have not invited you out for a meal. Don't worry, it is probably nothing personal. Germans do not entertain business people with quite the same enthusiasm as some of their European counterparts.

The Germans are also notable for the amount of the formality they bring to business. As an outsider, it is often difficult to know whether colleagues have been working together for 30 years or have just met in the lift. If you are used to calling people by their first names, this can be a little strange. To the Germans, titles are important. Forgetting that someone should be

Herr Doktor or Frau Direktorin might cause serious offence. It is equally offensive to call them by a title they do not possess.

In Italy the question of title is further confused by the fact that everyone with a University degree can be called Dottore – and engineers, lawyers and architects may also be called by their professional titles.

The cultural challenges exist side by side with the problems of doing business in a foreign language. Language, of course, is full of difficulties – disaster may be only a syllable away. But the more you know of the culture of the country you are dealing with, the less likely you are to get into difficulties. It is worth the effort. It might be rather hard to explain that the reason you lost the contract was not the product or the price, but the fact that you offended your hosts in a light-hearted comment over an aperitif. Good manners are admired: they can also make or break the deal.

Decide whether these statements are true or false according to the story you have just read:

- In France you are expected to shake hands with everyone you meet. Yes, at meetings.
- People in Britain shake hands as much as people in Germany.
- In France people prefer talking about business during meals.
- It is not polite to insist on paying for meal if you are in Italy.
- Visitors to Germany never get taken out for meals.
- German business people don't like to be called by their surnames.
- Make sure you know what the titles of the German people you meet are.
- Italian professionals are usually addressed by their titles.
- A humorous remark always goes down well all over the world.

Write a few sentences how we meet, great and entertain business partners or guests in Slovenia.

#### 1.2 PRESENT FORMS

You have been learning about the rules of present forms all your school life, so you should be quite aware of them. That is why there are no rules included in this book, but quite a few exercises that might help you revise and thus improve also your speaking skills. To make your work easier I just included a few examples (I live in a block of flats. She goes to work every day. They always travel to work by car. I don't have any experience. He doesn't like team work. Where do you come from? When does she get up in the morning? What are you doing? I'm reading these sentences now. It isn't raining outside.)



# I. Answer these questions:

What do you do? And what are you doing at this moment? I'm a student. I'm doing an exercise at the moment – I'm answering questions.

Do you use a computer? Are you using it now?

How often do you use it?

When do you work/study long hours?

Why do people go back to school?

What do you most enjoy about your school/work? Is there anything you don't enjoy?

Do you come from a big family? How many siblings do you have? Do you get on well with them? Do you go on holidays with your family? Where do you usually go? Do you meet a lot of different people? Do you have a lot of money? If so, how do you spend it? Where does your best friend work/study? II. Complete the dialogue using the verbs in brackets: A: Where \_\_\_\_\_\_ (you come) from? *Where do you come from?*B: I \_\_\_\_\_\_ (come) from Manchester. A: \_\_\_\_\_ (you live) in Manchester? B: No, I \_\_\_\_\_\_ (not live) in Manchester. I \_\_\_\_\_ (live) in London. A: What \_\_\_\_\_ (you do)?
B: I'm an engineer. I \_\_\_\_\_ (work) for Ben Johnson & Son Ltd. A: How often \_\_\_\_\_\_ (you travel) abroad? B: I \_\_\_\_\_\_ (not do) it very often. I very seldom go anywhere. III. Fill in the correct present form: It's 10 o'clock on Monday morning in Atomic Ltd. In the Research and development department they are having (have) a meeting at the moment. Everybody who is involved in the new project \_\_\_\_\_\_(attend) it. At the moment Bob \_\_\_\_\_\_(present) his ideas. He has prepared an interesting PowerPoint presentation and while showing it, he \_\_\_\_\_\_(explain) several features. They \_\_\_\_\_(organise) such meetings every Monday morning. After these meetings, they all \_\_\_\_\_\_(return) to their desks where they continue with the tasks. In the production department the foreman \_\_\_\_\_\_(walk) around the production plant and \_\_\_\_\_\_(control) the process. He always \_\_\_\_\_(make) sure that things \_\_\_\_\_\_(not go) wrong as that \_\_\_\_(be) usually very costly. Outside, at the loading ramp a van is parked. Some workers \_\_\_\_(load) the truck with the faulty components they received yesterday. They \_\_\_\_\_\_(send) them back to the manufacturer. I work (work) for an electric company, called New Electrics. It is located in Kent and it \_\_\_\_\_\_(supply) a lot of households with electricity. We also \_\_\_\_\_\_(provide) other services as we want to have satisfied customers. If something \_\_\_\_\_(break) somewhere in the

\_\_\_\_\_\_(not know) what to do, another expert \_\_\_\_\_\_(come) and \_\_\_\_\_\_(have) a look at the fault or

(send) a specialist right away. If he

damage.

system, we always \_\_\_

2

1

2	We usually have most work after different kinds of storms when lines are broken and whole areas are left without electricity. That also happened last night when we had this huge storm so I really(not have) much time as I must rush off to help people in trouble.
3	Hello, I am Bob Livingston. I am (be) the
	Technical and Quality Manager at GBS in Berlin and I(work)
	within the Materials Testing Division which(make) equipment
	used by different companies. They use our equipment to test different properties of
	materials, such as strength, durability, softness, resilience and so on. GBS
	(employ) about 2,800 people and(be) a
	leading supplier of this type of equipment.  I'm responsible for operations which (mean) that I'm in charge of
	Research & Development and Quality. If something(go) wrong,
	I'm the one who(have) to find a solution and who
	(provide) answers to the Board.
	Currently, we (work) with our new clients from Japan. They have
	Currently, we(work) with our new clients from Japan. They have just placed a huge order so we(have) some difficulties fulfilling
	it. We have called in all workers, also the ones taking a holiday so we can finish the work
	on schedule.
4	Jonathan Black <i>is</i> (be) an executive recruitment specialist who has turned to writing. The result is the book 'Bosses Speak', based on interviews with 30 Chief Executives.  Each top manager – none of them very famous – is given a chapter and there is also some introductory material and a conclusion. This(mean) you can jump from one person to another which is good for people who(be) too
	busy to read a book from cover to cover. It(not be) expensive
	although whether it's good value for money it's doubtful.
	Some of the interviewees started their own business while others joined a company and worked their way up. Some(be) fairly new in their position while others have had years of experience. However, Jonathan(not
	seem) interested in these differences. They work in different area, from retailing to airlines, engineering, construction and software. This variety also(form)
	the main theme of the book.
	I have to say that Jonathan's approach(annoy) me. He rarely(stay) at a distance from his interviewees, who are mostly
	presented in their own, positive words. However, he(seem) to
	dislike certain interviewees. As a result, I(not know) whether to
	accept any of his opinions or not.
	It also means that the book(give) no clear lessons. At the very
	least, I expected to learn what(make) a successful Chief
	Executive. But these people seem to share two types of qualities. Some of them are very
	common, suggesting that anyone can be equally successful, which definitely is not true.
	And the other qualities are the ones that most successful bosses I've seen or met definitely
	(not have). So in the end, I'm not much wiser what
	(go) on.

Perhaps I'm being unfair. As long as you	(not think) about
whether you would like them as friends, and	pay no attention to what they say, the most
readable parts are where bosses describe their	way to their present position.
Nevertheless, Jonathan	(seem) to think that his book would be
useful for people who	(aim) for the top.

IV. Look at these job descriptions and underline the activities people normally do, there are two correct answers:

An architect

- a) works shifts
- b) negotiates prices and schedules with builders
- c) inspects the quality of the construction work.

A quality controller

- a) visits companies
- b) inspects samples
- c) analyses data and writes reports.

A warehouse manager

- a) inspects new shipments
- b) checks and controls inventories
- c) writes and tests new codes.

An electrical engineer

- a) designs circuits
- b) keeps records of inventories
- c) inspects and checks wiring and power supplies.

A maintenance engineer

- a) repairs and maintains customers' machines
- b) replaces damaged parts
- c) produces plans and drawings.

#### V. Correct these sentences:

Engineers has to work closely with production. Engineers have to work closely with production.

What does they talk about, is it the new project?

Does your company produces electronics?

I'm thinking this is your design. Do I right?

What does these mechanics do?

An engineer is using the computer every day.

How often does you have to work overtime?

Engineers usually aren't working in shifts.

# 1.3 EXPRESSING OBLIGATION, ABILITY, ADVICE, PERMISSION

You can do all that with the use of modal verbs. We can express strong obligation or prohibition with must – mustn't (I must go now, I'm very late. You must start exercising if you want to be healthier. You mustn't mix that, it can cause an explosion.). Mild obligation is expressed with the correct form of the verb have to (I have to go to a meeting this afternoon.

She has to get up early to get to work on time. Next week they will have to work long hours to fulfil all the orders. She had to recharge her mobile this morning as the battery went dead. Mike doesn't have to commute to the factory as he lives five minutes away.). We express ability with can – can't, could – couldn't, be able to (I can speak English but I can't speak French. When she was only two, she could swim like a fish. When I finish this book, I will be able to speak English much better.) Can, could are besides may, might (which are also used to express possibility) also used for permission (Can I use your computer for a while, mine has crashed? Could she attend the meeting? May I borrow your car? I may be able to help you.). To express advice and sometimes criticism should is used (You shouldn't touch that, it can kill you! She should go home and stay in bed if she's ill. If you wanted to pass the test, you should have studied more!).

I. Complete these sentences with the correct modal verbs:

We will have to go to school by bus as we seem to have car trouble.
I'm really up to my eyes today. I wonder if I call you back tomorrow.
€300,000! You be right. It be a mistake.
Give me ten minutes. I'll call you back. We be able to send you the
shipment today.
You think twice before making accusations!
We all open our eyes and pay more attention to the dangers around us.
I'm sorry but I help you anymore.
Each member of a team do their share of work.
Be careful, the floor is slippery, you slip and break an arm or leg or even
worse.
I have a beer, please?
If I want to earn some holiday money, I work overtime.
you go now? It's running late.
Look, you seem ill to me. I think you go home early today.
You use a metal ladder here. You get killed.
It's easy to do that and you spend a lot of money.
You leave any machine running if there's no one present.
We stay at work all night yesterday as we had so many urgent orders.
II. Two friends are discussing what is allowed to carry on the plane. Complete the dialogue
with the missing modal verbs:
Pete: Can I bring this laptop on board?
Jack: Yes, but I'm afraid you take those scissors with you.
Pete: I pack this camera in my suitcase?
Jack: No, you You take it in your hand luggage.
Pete: Do I leave the knife in my suitcase?
Jack: Yes, of course, you carry anything sharp on board of the plane.
Pete: What about an umbrella?
Jack: You worry about an umbrella. It is allowed to have one in your carry-
on luggage.
Pete: And finally, what about drinks?
Jack: Liquids are only allowed if they are less than 100 ml. You buy
something to drink either after you pass the security controls or on the plane.
Pete: Thanks so much You've really been very helpful

Jack: It's always a pleasure.

#### **SUMMARY**

In this chapter we learned how we can introduce ourselves in not very formal and also business situations. We also read about the ways of greeting and entertaining guests in different countries which we found are very different and we tried to establish what the situation is like in Slovenia. And finally, we revised the use of present forms and some modal verbs.

#### **SHORT REVISION**

- 1. Compare the informal and formal ways of introducing yourself or other people.
- 2. Analyse the differences between meeting and entertaining guest in different countries and compare them with those in Slovenia.
- 3. Can you describe your daily obligations at home?

# 2 JOBS AND HOW TO GET ONE

After studying this unit you will know more about different kind of jobs in general and in your field, learn about the rules of formal writing, be able to write a letter of application and a CV and also revise past forms. You will also be able to give instructions.

Have you ever thought about how many work areas and different jobs are available on the job market? Have you ever tried to find a job or at least part-time employment? If so, what did you do? Did you contact the Employment Agency or went through the small adds in the papers or the Internet? Are you aware of the rules that apply to formal writing? Do you know how to write a good letter of application or a CV?

I'm sure we are all aware of the crisis and the recession consequences so we know it's extremely difficult to find a job these days. So when we face the so-called real world, we need to be prepared and we need to know exactly what we are capable of and what we are looking for.

In the beginning of this unit we will discuss different jobs and do a few exercises, learning new vocabulary this way.

There are thousands of different jobs out there. Here are just some job areas possible: accounting and finance, insurance, advertising, aerospace and aviation, art and entertainment, publishing, law enforcement or security, automotive, legal, banking, management or executive, business development, manufacturing, clerical & administrative, construction, engineering, quality control, real estate, transportation and logistics, maintenance, green jobs and many more.

You might want to find a job for yourself by checking different web pages where you might come across different application forms which you complete with your information – if this happens, take your time and think hard before writing any information.

I. Use one of the words to complete each sentence: deal, work, responsible, of, manage, under, responsibility:

1. I <i>work</i> for Enginee	ring & Warehouses.
2. It	he production process in a subsidiary in Leeds.
3. I am in charge	the Research and Development.
4. About 280 people	work me.
	een marketing and sales is my
6. Iv	with a lot of difficult customers.
7. I'm	for a marketing budget of over €245 thousand
II. Match these jobs to t	heir job description:
a development engine	eer a product planner
a geologist	a quality controller
a field engineer	a mechanic
a software programm	er an architect
a civil engineer	a chemical engineer

Works for an IT company, writes codes, updates and debugs programmes. a software programmer

Repairs and services machines and equipment, works for a steel producer
Works for a telecommunications company, spends a lot of time travelling to companies to repair and replace or install telephone systems
Which professionals from above have to use a foreign language on a daily basis?
III. Complete the exercise below with the correct word (stay, installed, working, installing, work, design, install, travelling, travel, develops, involves):
I'm Tom Packman and I work for a company called Plugs and Lights, Ltd. We and exterior and interior lighting systems for architectural applications, mostly in large buildings. At the moment we're on new lighting for York Cathedral. Last year we a new lighting system outside the Westminster Abbey.  My name is Magdalena Smith. I'm an engineer in the software industry. I work for a company called Ideas and more, Ltd., that language recognition software. My work developing products for the telecommunications industry. We sell our software to almost every country in the world. That is why I a lot to have meeting with our existing and potential customers. At the moment, I'm a new system in China for their mobile phone network. Several specialists, especially engineers will there for about three months, but I'm back and forth all the time to keep an eye on the work and to keep up with the current situation back at the office.
IV. Choose the best word from the brackets to fill the gap:
I had a 9-to-5 <i>job</i> (job, work) when I left school but I didn't do it for long because I hated getting up early and the boredom of the routine.  We have a (flexible, repetitive) system, but everyone must be here between 11 and 4.
I work from (house, home) and simply send my work over the Internet; I only sometimes visit my co-workers at the company.  I sit in front of the computer all day, just drawing different kind of plans. This work is mentally (tiring, routine).
This is the most (stimulating, repetitive) job I've ever had. There is never a boring minute; I really like it a lot.
We all look forward to 5 o'clock because then we can (shift, clock) off for the day and finally go home.
The 7.15 train is always full of (commuters, telecommuters) who travel to London for work.
I'm at (work, job) by 8.45 and I leave for home at exactly 5 o'clock.

I clock (in, at) at 8.50 every day	and I'm at my desk
(until, for) 5 pm.	
The difficult thing is that my home is my office so	I'm there 24 (hours,
minutes) a day.	
We turned one of our rooms into an	(office, storage) and that's where I do
all my work which is sometimes rather boring.	
If you want to get a good job, you need the right	(papers, qualifications).
My job is really (mentally, physicall	y) demanding as I work in the mine.

#### 2.1 RULES OF FORMAL WRITING

Since you probably (at least a bit) discussed some of these rules in secondary school, we will only revise them shortly.

Business correspondence writing belongs to the most important and exacting of professional activities. A correspondent is a professional who knows well all the problems of business events about which he/she wants to inform his/her partner.

Business correspondence is formed according to established rules, and expressed in a lively language. There is an emphasis on the vocabulary of the special branch of business.

We have to say more about the so called business style: a more frequent use of foreign words is concerned and many times concessions to grammar have to be made, connected with the requirements for professional expression.

Grammar rules also have to be applied in business writing. Wrongly made sentences cannot clearly express our thoughts, and in business writing such mistakes could be fatal.

It is important to line up your ideas systematically – with the use of paragraphs which separate different thoughts and ideas.

What you always have to remember is that not contractions are allowed in formal writing (can't – cannot, don't – do not, isn't – is not …). Think also about the correct salutation (Dear Sir or Madam – Yours faithfully, Dear Mr. Brown – Yours sincerely). The punctuation is also very important – there are no exclamation marks in formal letters.

Layout is very important! The letter should also be attractive for the reader.

Look at this model letter:

5, High Street OXFORD

7<sup>th</sup> October, 2009

The Sales Manager Carrick-Gateway 34 Waterloo Bridge Road LONDON SE2G 1ED

Dear Sir or Madam,

Would you please send me details of your copying machines which were advertised in the May edition of Business World magazine?

I am especially interested in the Super fax A3 types.

I look forward to hearing from you.

Yours faithfully,

Ben Kingsley

# 2.2 APPLICATION FORMS AND LETTERS

If you want to be even considered as a potential candidate for a certain job opening or vacancy, you have to be able to write a good and persuasive letter of application.

Although we all use computers nowadays, sometimes it is still expected from you to send in a handwritten application as some managers, especially the ones of the 'old school' still believe that the handwriting is the reflection of someone's personality. Sometimes the company might want to fill in an application form (that is listed somewhere in the advertisement) but usually they would want you to write a letter of application.

Below you can see an example of an appropriate letter of application which should neither be too short and nor too long but needs to include all the right and expected or even demanded information. It always has to be attractive for the reader (usually someone in the Human Resources department or even the manager or director, especially in small private companies). If you are not persuasive and your letter is full of grammatical mistakes, you will not be taken seriously and your application will be thrown away and usually not answered at all.

You also have to be extra careful about the addresses and titles not to offend anybody.

Celjska cesta 12 1420 Trbovlje

Termoelektrarna Trbovlje Ob Železnici 27 1420 Trbovlje 22<sup>nd</sup> October, 2009

Dear Sir or Madam,

With reference to your advertisement in the Zasavec of the 19<sup>th</sup> of this month, I am writing to apply for the position of an engineer.

I have all the right qualifications as I finished the college programme for mechanical engineers in Celje two years ago. In the meantime I have been working in Pivovarna Laško as the head of maintenance department. My mentor during my traineeship, Mr. Zmazek, can be approached at any time to provide references for me. But as I would like to work closer to home and as I believe that the job you are offering will be more suitable for me I am applying for this position. I am polite and friendly and used to working with people. I am able to use the computer, especially Microsoft programmes and I am excellent with CAD. I can speak English fluently as I have passed the First certificate exam and also some German which will be useful when dealing with customers and suppliers from abroad.

I hope you will find me a suitable candidate and grant me an interview.

I look forward to hearing from you soon.

Yours faithfully,

Tomaž Štraser

Enclosures: CV, photocopies of my diploma, reference from Mr. Zmazek

Go to www.ess.gov.si or www.iskanjedela.si, find an advertisement from a Slovene company looking for an engineer and write a letter of application.

#### 2.3 CV

An application letter is usually accompanied by a CV or a resume (your own biography). Never make things up (you can't say that you can speak a language fluently unless you really do) as most data that you state can be verified and, I can assure you, that it usually is. Look at this example:



Name Tomaž Štraser

Present address Celjska cesta 12, Trbovlje

Telephone number 041 896 111

Email address tomaz.straser@gmail.com

Marital status Single

Education and qualifications 1998-2002 Secondary technical school – machine

engineering, Trbovlje

2002- 2005 College for Mechanical engineering in Celje

Diploma of a mechanical engineer

Work experience Different summer jobs in my secondary school years

(Coal mine Trbovlje, Rudis Trbovlje, Cement works

Trbovlje)

Somrak, d. o. o.: work placement

Sepultura: import-export company: work placement

Pivovarna Laško, Head of maintenance (2007-2009)

Still employed

Other information While working I attended various evening courses

for English and German. My interests include different

sports, socialising and travelling.

References Mr. J. Zmazek, Assistant manager, Pivovarna Laško



Write your own CV to accompany the letter of application.

If you did well, you have to wait patiently for a reply. If you are lucky enough, you may be granted an interview and even offered the job. In that case, prepare well for your first day at work (you should be a bit early, dress appropriately, ask only intelligent questions, don't take long breaks, and write down important information ...).

The people below are all looking for a job for a short period of time. Read about them, and then read some advertisements from companies who would like to employ people for some time – then match the people with the jobs. (Be careful – there are more advertisements than are the candidates). Explain why each candidate is suitable for a certain position:

- 1. Peter has just finished school and is taking a year off before he starts a food technology course. He would like to gain some experience in this area.
- 2. Nancy is considering a career in nursing the elderly but wants to know what the job involves before she starts training. She doesn't mind helping someone for free. She just wants to get some valuable experience.
- 3. Jacky has just dropped out of studying languages at the university in Germany but is still planning to do a teaching qualification next year. She really enjoyed living abroad and would like to do it again.
- 4. Stuart gave up his job as an engineer because of low payment and is now doing a full-time computer course. He would like to earn some money but can only work before 9 a.m. or after 5 p.m.
- 5. Alison has just returned from the States where she was working with teenagers in a summer camp. She's going back shortly (probably in 6-7 months) but she needs money for the plane so she would like to work in the meantime.

#### A Mick's Supermarket

We are looking for additional staff in checkout sales and customer services. Daytime only (part-time hours possible). No experience essential. Staff benefits include free food in the restaurant, food discounts and travel allowance.

#### **B** Oasis

Volunteers needed in our friendly old people's home. Suitable for anyone wanting unpaid experience in care work. Light duties only, such as serving drinks and meals, helping our old residents getting out on the lawn and playing games with them. Temporary assistance is also welcome.

#### C Cheerful Hours - after-school care

Play leaders are needed for the after-school club. We run a number of play schemes in the area. Ages range from 5-15. Candidates must have previous experience of working with children and plenty ideas for entertainment.

#### **D** Clothes for Little Ones

Children's clothes shop is looking for a part-time shop assistant. The hours are 9 a.m. - 6 p.m. on Tuesdays, Wednesdays, Thursdays and Fridays. Benefits include discounts. Experience is desired. If you are interested, phone Sally on 894675.

#### **E Helping Hands**

Part-time mini-bus drivers wanted for a small local service providing transport for the disabled and elderly people. Hours can be arranged by agreement and there's reasonable payment. Evening work is also available. Sometimes help is required at weekends – for day trips.

#### F Let's Make Our City Cleaner

Part-time cleaners are required in busy offices around the city. Monday to Friday from 6 a.m. to 10 a.m. We pay €75 per week and provide uniforms and all equipment. We also have a mini-bus that will pick you up. But we expect good quality work.

# **G Six-Month Au-Pair Position in Germany**

Are you friendly, patient and cheerful? We need someone to look after three children (9, 6 and 3 years old) in return for food, accommodation and €45 pocket money a week. Evenings and weekends are free. The children already speak a little English but would like to learn more.

#### H Telco's Hypermarket

A fresh food assistant is wanted for the fish counter to prepare and display quality fish and to provide friendly and efficient service to our valued customers. Some basic training will be provided. Morning hours only, good pay, friendly and helpful staff.

Example: 1 H: Peter would be appropriate as he would gain valuable experience about fresh food before he goes studying.

#### 2.4 PAST FORMS

1

As we have already stated, grammar rules are not included in this book, but again just a few exercises to help you revise the past forms. Here are just a few examples (I worked hard last week. She opened the door but she didn't say anything. He was watching TV when I came home. After I had finished all my obligations, I went home.).

I. Think of an interesting holiday you went on or an exciting trip you made. Tell others about it:

Where did you go? *I went to Egypt*. Who was with you? How did you travel? What did you take with you? Did everything go according to plan? How did you feel when you got back?

II. Complete these stories with the correct form of the verb (Past forms only):

Music legend Michael Jackson *died* (die) at the age of 50 on the 26<sup>th</sup> June 2009. He \_\_\_\_\_\_ (suffer) a cardiac arrest at his home in Beverly Hills. Jackson, who \_\_\_\_\_ (have) a history of health problems, had been due to stage a series of comeback concerts.

	His body was airlifted from the hospital to the coroner's office in downtown Los Angeles. TV stations (carry) live coverage of the helicopter's journey. An autopsy was carried out later that day to establish the precise cause of his death.  Paramedics had been called to the Beverly Hills mansion Michael Jackson
	(rent) while he (prepare) for a series of fifty sold-out concerts in London. The singer's brother, Jermain Jackson (tell) at the news conference that after they (fail) to resuscitate him, Michael was transferred to a nearby hospital where a team of doctors (work) for more than an hour in a vain attempt to revive him.
	Only a few hours earlier Michael (rehearse) at a local sports stadium and he (look) much better and less frail than in the past years. His voice (be) back and he again (enjoy) performing dancing steps with his group.
2	
	On Wednesday, July 24 <sup>th</sup> , 2006, a team of gold miners <i>were</i> (be) hard at work in Forrester mine in Arrow Town, New Zealand.
	They (have) a map so they knew that there was another mine shaft nearby.
	But they (not know) that their map was wrong and the old mine was much
	closer than they (think).
	At 8.50 p.m., a terrible thing happened. Some miners (break) through the
	connecting wall and over 350 million litres of water poured in the old mine. They managed
	to escape the rushing water, but they were cut off from the surface, trapped 75 metres
	below ground.
	The miners (try) to find higher ground, but it was impossible. They found
	a small air pocket, but the water continued to rise. The water was very, very cold and there
	was only a limited amount of air, so breathing became extremely difficult.
	Above the miners the rescue team (not know) if they were alive or dead,
	but they (try) to reach them all the time. They drilled small holes to where
	the miners were and at 3.45 a.m. they lowered a pipe down to the miners. Fresh, heated air
	(come) down through the pipe.
	So, the miners had warm air, but the water was another problem. It (rise)
	all the time. Fitzpatrick, the miners' leader, estimated that they would be all dead in an hour. They
	hour. They (write) notes saying goodbye to their wives and children and put them in an airtight plastic bucket. The water (still rise) and it
	(rise) to their necks, but then it stopped. The men were still alive.
	The rescuers on the surface (still work) and they worked all the next day
	and into the night. They (have) to drill a tunnel to get them out. They
	drilled 34,5 metres into the ground but at 2.35 a. m. on Friday the drill
	(break). They had to remove it but they couldn't continue. The rescue team started the
	second tunnel, 15 metres from the first. And after a 16-hour shutdown, the first tunnel was
	back in business. But this was 46 hours from the accident. Was it too late?
	The breakthrough came on Saturday at 10.25. The first rescue drill finally
	(cut) through to the trapped miners. All miners escaped to safety after they
	(be) trapped for 78 hours.

NOW decide if the sentences below are true or false, correct the false ones:

The map the miners had didn't show the correct location of the old mine. True

The accident happened at ten to nine in the morning.

The miners couldn't find higher ground.

The miners' leader thought the rising water would kill them all in an hour.

Two rescue tunnels were started at the same time.

The drill broke again on Saturday at 10.15 p.m.

What is the writer trying to do in the story?

A Encourage other to think about the environment.

# III. Fill in the correct past forms of the verbs in this interesting story below:

My perfect holiday used to be two weeks in a hotel with no cooking, no cleaning and staff
waiting on me. After we had had (have) children, we (find) it easier to
choose places where kitchen facilities were included and we (do) the
cooking. It was a generally more convenient option although we (tend) to
stay in Britain because of the cost. Then friends of mine (introduce) us to
the idea of house-exchange holidays.
At first, we (think) that staying in someone else's house was unthinkable. I
also (not like) the idea of complete strangers wandering about in my home,
using my bathroom and sleeping in my bed. However, my friend (tell) me
how she, her husband and two children (spend) two lovely weeks in the
heart of Florida just for the price of the flight. They also (not have) any
problems with the family who stayed in their house in London.
Because they (be) so positive, we decided to try it ourselves. We joined a
house-exchange agency, (choose) the countries we were interested in
visiting and were soon sent information on possible exchanges. We chose a family from
Vancouver in Canada, (go) away and had the best holiday we'd ever had
in our lives. That was six years ago. Since then we've been to Hungary, Finland, Scotland,
the USA, Slovakia and even Australia.
One day, when I was sitting (sit) in a huge traffic jam on the way to school, I
I think other young people should do more to protect the environment; after all, it's our future.

B Give information about the environment.

C Advise people to use public transport.

D Warn young people about their lack of fitness.

What is the writer afraid will happen in the future?

A People will no longer walk anywhere.

B Car drivers will become completely depressed.

C There will be more pollution.

D Traffic jams will get even longer and will take too much time.

Which of the following did the members of the club realise they couldn't do?

A Start a club.

B Help protect the environment.

C Improve bus and train services.

D Change the way we live.

What did 'The environment People' decide to do?

A Write a letter to the government.

B Write down what actions they could take.

C Persuade people to use public transport.

D Join up with other similar clubs.

#### 2.5 GIVING INSTRUCTIONS

In our everyday but also professional life we have to give and follow certain instructions. Have a look at this example about how to change an oil filter:

Check the handbrake is on and jack up the front of the car. Put a shallow pan on the ground under the engine.

Make sure that's directly underneath the engine's drain plug.

Unscrew the drain plug and wait for the oil to drain completely. It will flow out easily. Replace the plug and tighten it with a wrench.

Then locate the oil filter.

Remove the filter by rotating it slowly counter clockwise. Pour any remaining oil into the pan. Screw in the new filter, rotating it clockwise. Do not screw it too tightly.

Remove the drain pain and carefully pour the oil into a special container that can be sealed off.

Lower the car to the ground again. Do it slowly. Then pour new oil in. Check for any leaks under the car.

Repeat this process every 5,000 kilometres to keep your car in a good condition.

Write down another instruction: for example how to operate your mobile, TV, DVD, a washing machine ...

Can you guess which devices these instructions are for?

Put on this suit before going for a ride. In a crash it swells with compressed gas and protects your body. *Protective jacket and trousers*.

Lose weight by using this. It has sensors that time your mouthfuls. When the red light comes on, wait. When the green light comes on again, you can eat another mouthful.

Keep cool on hot days by wearing this. It protects your head and because of the size also your upper body.

#### **SUMMARY**

We could find out that finding the right job is not easy. We also discussed some rules of formal writing and how to write a good letter of application and a CV. So, if we know how to write a good and persuasive letter of application which is accompanied by a thorough and detailed CV (or your own biography), this is the first step towards finding a job you will like doing and will be challenging enough for you to keep studying and improving yourself. And thus we might be able to start a successful career. These steps are: look for advertisements, write a good application form and a detailed CV, prepare well for a job interview, and act smartly and businesslike on your first day at work. We also revised past forms and learned how to give instructions.

#### **SHORT REVISION**

- 1. Do you happen to remember where can people looking for jobs find information about vacancies?
- 2. Summarise in a sentence what the first step towards finding a job is.
- 3. Explain and analyse what kind of information you have to include in your CV.
- 4. Try to think of an interesting invention that you know and give instructions how to operate or use it.

#### 3 DIFFERENT KIND OF COMPANIES

After this unit you will be able to describe certain companies and the three different sectors. You will also learn much more about engineering. Besides you will be able to use Present perfect more correctly and know how to give directions.

What do you know about different kind of companies? How familiar are you with the different sectors or different sizes of companies?

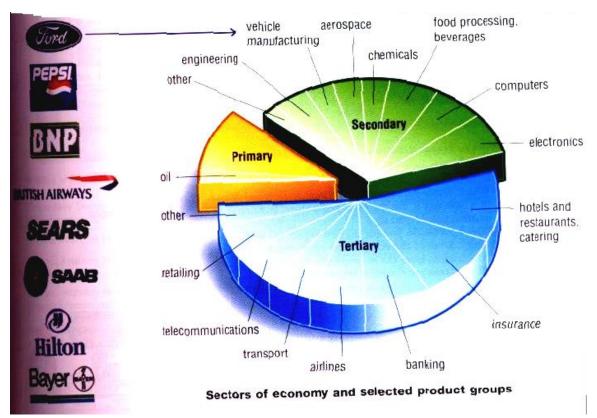
Companies are a very important part of a country's economy. They produce goods and services and they come in every shape and size.

There will be many occasions when you will have to talk about the company you work for. This may be when you are actually showing someone around the place of work or premises or when you give presentations to future clients, customers or business partners.

You may also need to explain to someone how your department or your company is organised or how it is run, who is responsible for different aspects of business and similar.

The first step towards this is to decide or explain which sector your company belongs to. Look at the picture below and then answer the questions in exercise 2:

Which of these companies do you know?



Picture 1: Different kind of companies

Source: Jones, Alexander, New International Business English, 2000, page 43

If we compare the three sectors, we can say that primary sector grows or takes different kind of things directly from the ground or water or in general our surroundings and mainly deals with raw materials; secondary sector produces or manufactures and tertiary sector companies offer services.

Companies can be further divided according to the size (small, medium, big or large), ownership (private, public, national), type (engineering, insurance, joint-stock ...) etc. They also have very different organisational structure (from only one manager to boards of managers, supervising committees ...) and can have only a few or several different department (production, purchasing-sales, export-import, advertising, marketing, finance, accounting ...).

I. Look at the logos of different companies below. Divide them into the three sectors: if you have never heard of them or if you are not sure, check them out on the Internet:



Picture 2: Company logos

Source: www.epsvectorlogosoncd.com

#### II. Answer these questions:

Which are the five largest or most important companies in your region (country)? For example: Prevent, Lek, Krka, Mercator, TAP

Which sectors of industry or product group do they belong to?

Make a list of the products they make or services they supply.

Which sector do you (you intend to) work for?

Which areas of the economy are changing the most?

Which sectors can we not do without?

Has the rate of unemployment in your country increased or decreased in the past years?

In which economic sectors have jobs disappeared?

In which economic sectors have jobs been created?

III. Describing a company: complete the sentences with one of these expressions: famous, established, high, reliable, owner, quality (not all of them are used):

Ford is a <i>long- establishe</i>	d company.	
Harrods only sells high		products
Sony is	_ for their televisi	ions.
Philips make	electrical	goods.

Try to find as many logos of Slovene companies (at least 5-10) from each sector

(like this example: secondary and tertiary sector: prevent ).

#### 3.1 ENGINEERING

Engineering is based on many other sciences, such as physics, chemistry, mathematics but also mechanics, thermodynamics and analysis.

It is a science, discipline, art and profession of acquiring and applying technical, scientific and mathematical knowledge to design and implement materials, structures, machines, devices, systems, and processes that safely realize a desired objective or inventions. Its main focus is to design or develop structures, machines, apparatus, or manufacturing processes, or works utilizing them singly or in combination; or to construct or operate the same with full cognizance of their design; or to forecast their behavior under specific operating conditions; all as respects an intended function, economics of operation and safety to life and property. This broad discipline can be further divided into sub disciplines, each with a more specific emphasis on certain fields and particular areas, for example: civil, mechanical, electrical, electronic, marine, automotive, aeronautical, heating and ventilation, mining and medical engineering.

One who practices engineering is called an engineer.

Watch an episode on 'How is it made?' or 'Mega structures' or 'Extreme engineering' on Discovery or National Geographic Channel about the work the engineers do and describe it to your classmates.

Here is an extract from a speech to a group of students who are yet to decide which programme they want to choose and study. Complete it by choosing one of the words: machines, highway, mechanical, civil, physics, electrical, develop, production, electronic, chemical:

Engineering students need to have an understanding of math, <i>physics</i> and chemistry. Working
with pharmaceuticals, food, mineral processing and chemical manufacturing, a
engineer is trained to understand, design, control and investigate
material flows. If you like problem solving and find projects for building tunnels or dams
interesting, engineering is the right choice for you. This way you will
produce creative designs at competitive prices and you will be actively taking care of the
environment. If your interest lies in road building, then you can decide to specialise in
engineering. By studying and
engineering you learn about the design of complete systems, such as
computers, power or transport systems engineers plan, design and
a wide range of things, such as white goods (for example: washing
machines) cars and even spacecrafts engineers work closely with
mechanical engineers to make a new product at the reasonable price, on time and at the right
quality. Besides designing and selecting and materials, they are
expected to organise people and finances.
II. Look at the text below about a company that has an office also in Ljubljana (find where)

II. Look at the text below about a company that has an office also in Ljubljana (find where) and then answer the questions below:



#### Welcome to ABB

# The ABB Group

ABB is a global leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact.

# **Technology**

Technology plays a key role for ABB. We have activities all over the world working to develop unique technologies that make our customers more competitive, while minimizing environmental impact.

### Sustainability

Sustainability is integral to all aspects of our business. We strive to balance economic, environmental and social objectives and integrate them into our daily business decisions.

#### Where to find us

ABB operates in more than 100 countries and has offices in 87 of those countries to give its global and local customers the support they need to develop and conduct their business successfully.

(Source: www.abb.com)

- 1. What do they produce? They are involved in power and automation technologies.
- 2. What is their main goal? What is the purpose of their activities?
- 3. What's their attitude towards environment?
- 4. Where does the company operate?

#### 3.2 COMPANY PROFILE

Very often you will have to talk about your or any other company, so you need to know how to do it well. Look at this example:



CRANE engineering, Ltd. is a small, private company, employing a staff of 55 workers who are all fully and highly qualified.

We are located in the industrial zone of Manchester and we employ mostly local workforce. It all started in 1980 when Mr. Jack Crane decided to start his own company after he had been made redundant at his previous company. It was rather difficult at the beginning as the company that employed only 10 people had to face the competition of large companies that dominated the market and could offer, if necessary, more competitive prices of different machines used in the industry. The turning point came in 1985 when the company landed a big contract with British Railways. The success of the company has continued ever since and the company personnel and their products have earned good reputation.

The company is run by Mr. Graham Crane, the son of the founder, who is the managing director. He gets help from the finance, design, production and marketing department.

Their main plan is to maintain the same market share also in the future and to get more involved in the environmentally friendly production.

Read this short company description and complete it with the missing expressions: name, promote, solar, burgundy, Ltd., exotic, ranges, built-in, promotional, items, plastic, conference

Promotions in Plastic, Ltd. (better k	known as P.I.P.) is a	small company,	specialising in
producing personalised	for companies	s wishing to	
themselves or their products. One or	f their most popular _		is promotional
pens, but they also produce	desk or	ganisers, golf ba	alls with your
company printed or	n them, personalised c	omputer discs,	
folders and calcu	lators. One of their	fastest-growing	ranges is the
mousepads. The	y come in four d	ifferent colours:	black, grey,
and green. There	is also a version with	ı a	calculator.
They can also be made in unusual	or s	shapes (for examp	ple: a car or a
fruit).			

Find an engineering company on the World Wide Web and prepare a similar presentation.

#### 3.3 PRESENT PERFECT

Present perfect is a tense that we don't have in our mother tongue so it often causes problems to the Slovene learners of English (I have already done the exercise. I've never tried something so dangerous. She has just finished her work. They haven't returned our call. She hasn't seen something like that before. I've been teaching for a very long time. She's been working too much lately.)

Below are a few exercises that may help you be more confident when using it.



# I. Answer these questions:

What ha	ve you	done so f	ar today?	I have	had bi	reakfast, I	have	driven to	school.
---------	--------	-----------	-----------	--------	--------	-------------	------	-----------	---------

Why have you decided to study engineering?

Have you been doing anything interesting lately?

I (have played/played) tennis when I was younger.

yet.

Where have you been on your holiday?

Who has influenced you most so far?

How long have you been learning English?

Who have you always been able to rely on?

II. Complete the dialogue using the verbs in the list: called, installed, has, had, have promised,
haven't, have, done, come, have installed:
A: <i>Has</i> all the equipment arrived yet?
B: Yes, it has already It came this afternoon.
A: Oh, good you everything?
B: No, I haven't. I enough cable to connect everything.
A: And have you connected the PCs to the printers and photocopiers?
B: Yes, I, but there's a problem with photocopiers.
A: Can you fix it?
B: I don't know. I the software and everything seemed OK, but
then they called me and told me that they couldn't print.
A: Have you the company that sold us the photocopiers?
B: Yes, of course. I've just that.
A: And what did they say?
B: They to send a technician round tomorrow.
A: OK. Let's hope they can fix it.
III. Complete this extract from an advertisement about Emerging Markets Fund with the correct form of the verb:
Over the past few years, before the world's crisis, caused by the recession, the capital returns from many emerging Asian markets <i>have been</i> (be) much higher than those of the developed world. The same can be seen also in the countries of the Latin America. For example, the markets in Argentina (rise) by almost 800% and Mexico (increase) by more than 600%. In Asia, the booming market in Thailand (go) up by 300% and investors in the Philippines have earned more than 200%. The situation has worsened a little in the past few months, but still looks much more promising than in the rest of the world.  The developed nations (not manage) to make anything closely similar.
The developed nations (not manage) to make anything closely similar. Although the USA market (grow) a lot before the crisis, it all went
downhill last year with the start of the recession.
The growth rates that these emerging markets (enjoy) in the recent years is
phenomenal. Experts say that we can expect positive results also in the future.
phonomenal. Experts say that we can expect positive results also in the ruthre.
IV. Which of the options in the brackets is correct – explain why?

I (passed/have passed) the written test but I (haven't taken/didn't take) the practical part

He was a service engineer and then he (has joined/joined) the production department.

She (has qualified/qualified) as a mechanical engineer two years ago.

The first job Bob (has had/had) was at a small logistics company in Dublin.

(Have you ever been/Did you ever go) to Japan?

She (studied/has studied) civil engineering from 2007-2009.

These plans have been written/were written last month when their creative team was working/has been working together with ours.

#### 3.4 GIVING DIRECTIONS

It doesn't really matter whether you live in a small town or a big city (it can also happen within your own company), there will always be someone who can't find their way around, and so you will need to give them precise and clear directions.

Look at theses examples:

- A: Sorry to bother you, but could you tell me how to get to the Human Resources department?
- B: Sure. It's on the third floor of the main building. Just continue down the corridor to the elevator and go to the ground floor. When you get out of this building, turn right, go through the small park and you will see the main building in front of you.
- A: Thank you. You are very helpful.
- A: I'm sorry but I forgot how to get to the conference centre tonight. Could you tell me again?
- B: Will you walk or go by taxi?
- A: If it's not too far, I'd rather walk.
- B: No, it's not that far. You will need about half an hour.
- A: That's great. So, where do I go?
- B: From your hotel just turn left and go down the main shopping street. When you come to the church, turn left and continue uphill. When you come to the monument, turn right and take the bridge across the river. The conference centre will be on your left. I wish you a pleasant walk.
- A: Thanks again.
- A: Excuse me, please, how do I get from Mislinja to Ravne?
- B: It will take you about 40 minutes. Just follow the main road and when you come to Slovenj Gradec and you see the sign for the centre, turn left. Carry along through two traffic lights and when you come to the roundabout, take the third exit. Continue straight on, through Stari trg, Sele to Kotlje where you turn right and drive for another 5 minutes before you reach Ravne. It's easy, just pay attention to the traffic signs.
- A: Thank you so much.
- B: You're welcome.

Obtain a map of your town/city and practice giving directions to people who have no idea where to go.

#### **SUMMARY**

If we summarise in a few sentences, we can say that there are three main sectors of companies that are further divided into private or public, small, medium or large, have different management and also very different organisational structure.

Engineering is a science that is closely connected with other areas and is essential in our modern life. In this unit we have also learned about Present perfect and how to give directions.

#### **SHORT REVISION**

- 1. Can you explain how we divide companies, according to the sectors?
- 2. Can you name some companies that belong to each of the sectors, what kind of products they make or what services they provide? Would you like to work for any of them? If yes, why?
- 3. What is engineering? Who is an engineer? Which sciences are closely connected with the engineering? Is working as an engineer an interesting profession? Why/why not?

# 4 NUMBERS, SHAPES, DISTANCES & DIMENSIONS

After this unit you will know much more about numbers and shapes, distances & dimensions and you will be able to work with them, explain them, draw them and operate with them. You will also be able to use Future forms better and easier.

Do you know the difference between the Roman and Arabic numbers, between Cardinal and Ordinal, have any idea how fractions are spoken? Which types of shapes do you know?

#### **4.1 NUMBERS**

You will be working with numbers all the time, so you need to be aware of them, how we pronounce them individually and mathematical formulas. Let's have a closer look.

#### Cardinal numbers are:

0	zero (oh, nought, nil)	315	three hundred and fifteen
1	one	6,155	six thousand one hundred and fifty-five
2	two	2,340,901	two million three hundred and forty
10	ten		thousand nine hundred and one
100	one (a) hundred		
1,000	one (a) thousand		
1,000,000	one million		
1,000,000,000	one billion		

#### Ordinal numbers and dates

Oramai mami	ocis and dates		
$1^{st}$	the first	1 <sup>st</sup> January	the first of January
$2^{\text{nd}}$	the second	3 <sup>rd</sup> April	the third of April
$3^{\text{rd}}$	the third	15 <sup>th</sup> May 200	9 the fifteenth of May two
4 <sup>th</sup>	the fourth	-	thousand and nine
10 <sup>th</sup>	the tenth	22 <sup>nd</sup> June 199	90 the twenty-second of June
$20^{\text{th}}$	the twentieth		nineteen and ninety
25 <sup>th</sup>	the twenty-fifth		-
31 <sup>st</sup>	the thirty-first		
$1,000,000^{\text{th}}$	the millionth		

# Fractions, decimals and percentages

$2^{1/2}$	two and a half
3 1/4	three and one quarter
25%	twenty-five per cent
99%	ninety-nine per cent
1.33	one point thirty-three
6.7895	six point seven eight nine five

#### Arithmetic

+	addition $5 + 4 = 9$	five plus four equals nine
-	subtraction $5 - 4 = 1$	five minus four equals one
X	multiplication $5 \times 4 = 20$	five multiplied by four equals twenty
:	division $20:4=5$	twenty divided by four equals five

#### Roman numbers

1 I

5 V 9 IX 10 X 49 XXXXIX 50 L 100 C 500 D 900 CM 1000 M

I. Read this information about the Colorado River and fill it with the missing numbers:

900 km, 20 m2, 1935, 4,860 m, 1933, 907 tonnes, 15 m, 23 m2, 2,253 km, 229,359 m3, 5,500 m3



Picture 3: Colorado River Source: <u>www.sustainabilityninja.com</u>

The Colorado River is 2,253 k	km long. When they we	re building the Hoover	dam, they
rerouted the river through tunne	els. The tunnels had a total	al length of	and they
were over in diar	neter. They were lined w	vith of co	ncrete. The
tunnels could carry over	of water per	second. They started	laying the
concrete in June	and finished in May	The dam v	vas built in
blocks that varied in size from	about at th	e bottom to about	at
the top. To set the concrete, they	y laid more than	steel pipe in the c	oncrete and
pumped icy water through it.	The water came throug	th a refrigeration plant	that could
produce of ice a d	lay.		

II. Write down these numbers or dates and fractions:

1,000,000,000 *one billion* 21<sup>st</sup> May 35% 8237 654 1/3 \$4,320 9.369 34.65 g

Three minus three plus sixteen divided by four equals four. 3 - 3 + 16: 4 = 4

Twelve plus six divided by nine times ten minus two equals eighteen.

Sixteen point five plus one point three four minus ten point eight six equals six point nine eight.

The square root of thirty-six multiplied by four cubed equals three hundred eighty-four.

# III. Write the following in words not in numbers:

5% of the population owned 85% of the country's wealth in 1995. Five per cent ....eighty-five per cent... nineteen ninety-five

About 2,000,000 people live in Slovenia.

55.2% of adults have false teeth.

 $6 \times 7 = 42$ 

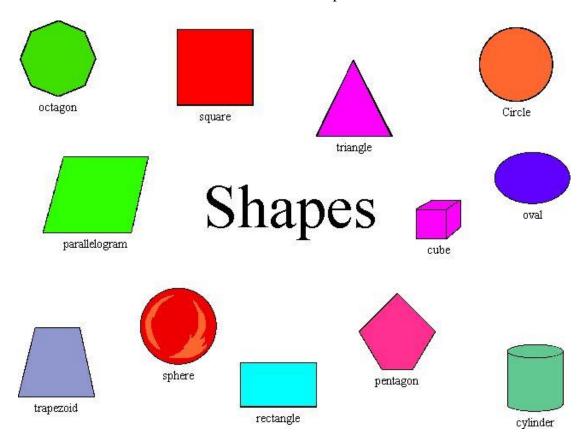
That is 33,923 km from here.

23,250 umbrellas are approximately sold in England every year.

It was extremely cold, about -20 degrees Celsius.

# **4.2 SHAPES**

All scientists and technologists need to be able to talk about different shapes; they can be twodimensional or three-dimensional ones. Look at the picture below:



Picture 4: Shapes Source: www.learnc.org



Draw the following:

an ellipse

a rectangle with diagonal lines joining opposite angles

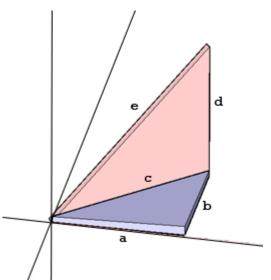
two curved lines, going in the opposite directions

a square with a diagonal going from the centre to the top left corner a capital E is the wrong way round, its top line extends to the left so that it is six times longer than the bottom line

two parallel lines, the above much longer, there is a semi-circle on the top, not connected to the above line

#### 4.3 DISTANCES & DIMENSIONS

You probably know all the common words for distances and dimensions, such as broad, wide, tall, high, long, short, low, far, deep and also its derivatives (broaden, widen, width, heighten, height, lengthen, length, shorten, lower, faraway, deepen, depth ...). In mathematics you will often come across different pictures like the one below where you have to calculate out all measurements.



Picture 5: Mathematical dimensions Source: <a href="http/wps.pearsoned.com.au">http/wps.pearsoned.com.au</a>



I. Write down the opposites of the following:

a length of the room -a width

a tall person	a faraway place
to shorten	a low mountain
	with the correct expression, choose from: diameter, square, ide, circumference (some are used more than once):
Our classroom4 The rug is 1 metre4	65 centimetres and a of 24.5. 65 by 5.8 metres, that's almost 27 metres. and 0.7 metres  y one centimetre
III. Match the questions to the an	swers:
1 How long did it take to build 2 How much does it cost? 3 How much do they weigh? 4 What are its dimensions? 5 What's it made of? 6 What's its operating time? 7 What's the maximum load? 8 How high can it fly? 9 What type of fuel does it use 10 Why type of engine does it 11 What's its maximum speed: 11 What's the fuel tank capacitation of the company of the compan	B) 8 L C) 1,700 hours D) 4455 kg E) over 200 km/h F) 6.3 hours on a full tank G) a maximum of 3500 m above sea level H) 6 m x 1.5 m x 8.5 m I) wood have? J) 4.4 L V8 K) unleaded petrol y? L) \$655  4 5 6
IV. A quiz:	
What is longer: a centimetre or Is one metre as long as a yard? Which building is taller: 50-me Who drove faster: the driver w km/h?  Do you get the same if you buy Which is lighter: one gram or or	tre or 50-feet one? no was driving 80 miles/hour or the one who was driving 80 one kilo of cherries or one pound of them? ne ounce? ould you write two metres as 2 ms? or meter? or 1? number 6455340000?

shallow water

Measure your room at home and use different expression when describing and presenting it.



Write the birthdays of your family with Roman numbers.

#### **4.4 FUTURE FORMS**

We use different future forms (Present simple & continuous, Will future, Going to future, Future continuous and Future perfect) to describe events that are likely to happen in the near or distant future. Here are a few examples (I'm seeing my doctor next week. She's having a meeting later in the afternoon. The match starts at 7 o'clock tonight. When does the sun rise tomorrow? I'll have a cup of coffee, please. They'll go on holiday to Hawaii. She won't accept the job because the salary is too low. I'm going to buy a new car when I save enough money. She's going to have a baby soon. Before the exam I'll be studying a lot. When will you have finished that report?).



I. Answer the following questions:

What are your plans for this weekend? I'll go out with my friends; we are going to have a good time. On Sunday I'm seeing my old friend and we will be having a picnic together.

When is your next birthday?

What will you be doing tonight? Will you be watching TV?

Where are you going to spend your next holiday?

Will you buy a new car soon?

Do you happen to know when the sun rises tomorrow?

When will you have finished this school?

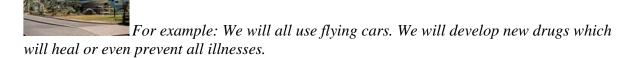
Who will you be working for in 5 years' time?

What position will you have in the company?

What sort of things, do you think, you will be doing as part of your job?

What will you have achieved by 2020? What changes will have taken place in your personal life by then?

II. Make predictions what life will be like in the future -50 or 100 years from now.



III. Complete the conversation below (it takes place at a construction site) with the correct expressions from the list:



won't be able to start work won't be able to get our lorries Will the site be ready will have to widen the door won't let you come to work won't have to widen the road will not be able to start work it will be

Jim: OK, let's get over this one more time. Will the site be ready for us to start work tomorrow?
Joe: Bob says and he's in charge.
Jim: If they haven't prepared the site, we on time and that means unexpected costs.
Joe: We gave clear instruction. Bob says everything is ready.
· · · · · · · · · · · · · · · · · · ·
Jim: What about access to the site? If they haven't taken down the fence, we
Joe: Don't worry. It's been done already. So we don't need any specific tools because we
Jim: What about the door?
Joe: The door?
Jim: We to get the compressor in. It was in the plan.
And if we can't get the compressor in, we on time.
Joe: But can they do it?
Jim: They'll have to. But don't worry so much. It'll be OK. If you are so worried about
everything, I tomorrow.
IV. The export manager of an agricultural machinery company is talking to his assistant about
the business trip he's going to take. Put the verbs in the conversation in the correct future
form:
Nancy: I've booked your flight and hotels for your visit to Vietnam next Friday. You are leaving (leave) at 6.30 a.m. and that means you (arrive) there late in the afternoon.  Lason: What about hotels?
leaving (leave) at 6.30 a.m. and that means you (arrive) there late in the afternoon.  Jason: What about hotels?
<ul><li>leaving (leave) at 6.30 a.m. and that means you (arrive) there late in the afternoon.</li><li>Jason: What about hotels?</li><li>Nancy: You (stay) at the Marriott for the first two nights. You</li></ul>
leaving (leave) at 6.30 a.m. and that means you (arrive) there late in the afternoon.  Jason: What about hotels?  Nancy: You (stay) at the Marriott for the first two nights. You (have to) take a taxi from the airport. Your first meeting is on
leaving (leave) at 6.30 a.m. and that means you (arrive) there late in the afternoon.  Jason: What about hotels?  Nancy: You (stay) at the Marriott for the first two nights. You (have to) take a taxi from the airport. Your first meeting is on Monday and you (see) Mr. Chin from the Ministry of
leaving (leave) at 6.30 a.m. and that means you (arrive) there late in the afternoon.  Jason: What about hotels?  Nancy: You (stay) at the Marriott for the first two nights. You (have to) take a taxi from the airport. Your first meeting is on Monday and you (see) Mr. Chin from the Ministry of Agriculture at 10 o'clock.
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leaving (leave) at 6.30 a.m. and that means you (arrive) there late in the afternoon.  Jason: What about hotels?  Nancy: You (stay) at the Marriott for the first two nights. You (have to) take a taxi from the airport. Your first meeting is on Monday and you (see) Mr. Chin from the Ministry of Agriculture at 10 o'clock.  Jason: (I need) any vaccinations?  Nancy: I'm not sure. I (ask) our Health Directorate and I (let) you know as soon as possible.
leaving (leave) at 6.30 a.m. and that means you
leaving (leave) at 6.30 a.m. and that means you
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leaving (leave) at 6.30 a.m. and that means you
leaving (leave) at 6.30 a.m. and that means you
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leaving (leave) at 6.30 a.m. and that means you
leaving (leave) at 6.30 a.m. and that means you
leaving (leave) at 6.30 a.m. and that means you
leaving (leave) at 6.30 a.m. and that means you

V. Fill in the correct future form:

Dear Jane,

Why don't you come with us to Yorkshire? It's all arranged. Jo is coming (come) to my
house at six so we can go to the station together. The train (not
leave) until 6.45, but we don't want to be late. It (stop) a lot on the way so it (not arrive) until three in the afternoon. I imagine we
(get) quite tired by the time we get there. We (stay) in a youth hostel and we (spend ) five days there.
We can catch a bus on the way from the station, but it (not go) all
the way, so we (have) to walk the last two miles from the village.
We (have) breakfast and dinner at the youth hostel. It's in a beautiful
spot with lots to see. On the way back we need to set off early as there's only one bus and it (leave) at 8.30. The train back is much faster so it arrives just
after lunch.
As you can see we have everything planned and organised. I hope you (change) your mind and join us.
Write soon.
Love,
Emily
VI. Correct these sentences:
Don't worry. It'll only be lasting a few minutes before the tooth will be out. Don't worry. It'll only last a few minutes before the tooth is out.  By the time I get there the chef will cook for three hours.  Next year I work in our factory in Germany.  This year she stays at home for the holidays.  On Saturday Jack will have got married.  Tom will see his doctor next Monday.  I'll call you when I'll know something.  The bus will be leaving at three.  What do you think you are doing next year?
4.5 COMPARISON OF ADJECTIVES
When we talk about distances, dimensions we very often have to compare things, items or characteristics: we can do this with suffixes (long – longer than – the longest, easy – easier – the easiest, big – bigger – the biggest; good – better – the best, bad – worse – the worst, far – further, the furthest) or (with longer adjectives) we use more and the most (difficult – more difficult – the most difficult).
I. Can you complete these sentences with the correct form of an appropriate adjective? Sometimes there are different possibilities.
My brother is the <i>tallest</i> in our family. He's 198.
The BMW was the car in their showroom.
I don't have much money so I'll choose the hotel for my holiday.  These days everything is so Yesterday I bought some fruit. Bananas
These days everything is so Yesterday I bought some fruit. Bananas
were the while the grapes were than the melon.

Last night I was very tired so I went to bed \_\_\_\_\_\_ than usually. Their house is the \_\_\_\_\_ in our street.

This box is just too \_\_\_\_\_ . It won't fit into the car.

II. Compare the characteristics of three means of transport below (use adjectives: fast, expensive, cheap, heavy...):







Price: €150	€1,560	€45,000
Weight: 15 kg	80 kg	1,340 kg
Top speed: 85 km/h	185 km/h	240km/h
Length: 195 cm	245 cm	5,485 cm
Width: 35 cm	45 cm	2,450 cm

Example: The BMW is the most expensive and the bicycle is the cheapest.



Do you have your own motorbike or a car? Can you describe it?

#### **SUMMARY**

In this unit we got to know a lot about different numbers (Arabic and Roman, cardinal and ordinal, fractions, percentages and mathematical operations), various shapes (two- and three-dimensional), distances and dimensions. We also revised future forms and comparison of adjectives.

# **SHORT REVISION**

- 1. Explain the difference between cardinal and ordinal numbers.
- 2. Write your birth date in Roman numbers.
- 3. Can you divide the shapes into two- and three-dimensional?

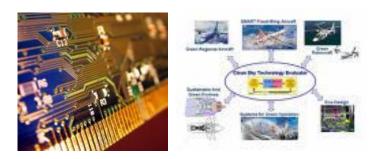
# 5 TECHNOLOGY, MATERIALS AND TOOLS

After this unit you will have a more detailed knowledge about technology, will be able to talk about different materials, know their properties and features and be able to discuss different tools.

What do you understand under the term technology? Which materials do you know? Do you know the differences between solids and liquids? What is an alloy? Do you have any idea how tools are divided? Have you ever heard about the lathe?

#### **5.1 TECHNOLOGY**

Technology is the knowledge of tools and crafts. Technology can refer to machines, hardware or utensils, but can also encompass broader themes, including systems, methods of organization, and techniques. The term can either be applied generally or to specific areas: examples include construction technology, medical technology, or state-of-the-art technology. Recent technological developments, including the printing press, the telephone, and the Internet, have enabled better communication. Unfortunately not all technology has been used for peaceful purposes; the development of weapons of ever-increasing destructive power has progressed throughout history.



Pictures 6, 7: Different technologies Sources: www.cnq.ca, www.asd-europe.org

I. Below you have some of the amazing discoveries and achievements of modern times. Match the names on the left with the definitions on the right:

1 modem	A) a machine which record	ls and plays back soun	d
2 photocopier	B) a camera which records	moving pictures and s	ounds
3 fax machine	C) a machine which record	ls and plays sounds and	d pictures
4 tape recorder	D) a machine which makes	copies of documents	
5 camcorder	E) a machine which acts lil	ke a person	
6 robot	F) a machine which makes	copies and sends them	n down telephone lines
7 VCR	G) a piece of equipment, no	ecessary to have Intern	et connection
1 G 2	3	4	5
6 7			

# II. Match each problem with a solution:

1 This wall is very dirty.2 The window hinges squeak.A) It needs recharging.B) They need servicing.

English for Mechanical Engineering	
3 The car's battery is dead.	C) It needs tightening.
4 The car seat is too far back.	D) They need oiling.
5 My two cars both make funny noises.	E) It needs adjusting.
6 This screw doesn't hold the shelf properly.	F) It needs painting.

1 F	2	3	4	5
6				

#### III. Underline the correct word in the sentences below:

Don't touch that. The wire is *live*/lively/living.

I can't use this electric drill; the lead/wire/plug isn't long enough.

There were no lights in that house. Their cable/fuse/safety probably went out.

This gadget is powered by a tiny electric engine/motor/machine.

Most appliances in Britain are fitted with a three point cable/plug/socket.

# IV. Make a list of things that can get or go - pair work:

dented: parts of the car in an accident
rusty
bent
dirty
blocked or clogged
cracked or broken
blunt
torn
flat
scratched
stained

#### V. Which inventions are described below?

If you want to get up at a certain time, this will wake you with different ringing sounds. An
alarm clock
If you need to get somewhere in the city, this is the best way as you avoid traffic jams. It
also doesn't pollute
If you need or want to talk to someone, you just press a few buttons
If you want to communicate with someone on the other side of the world, you can send
them an e-mail with the help of this
If you want to know the time, you just have a look at this. It can also be a fashion item.

Can you think of more appliances, gadgets or machines that have dramatically changed our world?

Increase your knowledge of vocabulary by reading articles of general science in technology (you shouldn't have problems finding one on the WWW). You can also expand your vocabulary by reading children's book with pictures or flipping through a picture

dictionary (Duden picture dictionaries can be very useful.). Present at least 20 new words that you have learned this way.

#### **5.2 MATERIALS**

There are different materials that we come across on daily basis. Material is synonymous with substance, and is anything made of matter - hydrogen, air and water are all examples of materials. Sometimes it is used more narrowly to refer to substances or components with certain physical properties which are used as inputs to production or manufacturing. In this sense, materials are the pieces required to make something else, from buildings and art to everyday products, such as computers. A material can be anything: a finished product in its own right or an unprocessed raw material.







Pictures 8, 9, 10: Different materials

Sources: www.treehugger.com, www.piceramic.de, www.photosearch.com

Raw materials are first extracted or harvested from the earth and divided into a form that can be easily transported and stored, then processed to produce semi-finished materials. These can be input into a new cycle of production and finishing processes to create finished materials, ready for distribution, construction, and consumption.

They are divided in different ways: nature, artificial, solids and liquids or fluids, each of them having certain properties.

I. Which of these materials do you know? Do you know the meaning of the properties listed?

Iron: heavy, stiff, hard, rigid, rough, non-combustible, brittle, not very corrosion-resistant

Steel: light, stiff, tough, malleable

Aluminium: light, soft, ductile, conductive, highly corrosion resistant

Rubber: flexible, soft

Concrete: rough, hard, non-combustible Oil: oily, thick, combustible, viscous Wood: soft, combustible, rigid

Glass: brittle, breakable, transparent, clear

Plastics: tough, good insulator, durable, wear-resistant, stiff

II. Work in pairs: write a list of some things that can be made of:

steel: products for big kitchens (for cooking), doors, vaults...

silk

cardboard

wax

rubber cotton gold glass			
III. Match these adjectives t	o their meaning:		
1 transparent 2 porous 3 durable 4 brittle 5 dense 6 pliable 7 translucent	A) able to last a lon B) hard, but easily C) easy to bend wit D) light can pass th E) has many small F) has a high mass G) clear, allows to	broken hout breaking, flex rough holes that allow wa to volume ratio	ible ter and air to pass through
1 G 2 6 7	3	4	5
and the Safety regulations required Rubber should be ableed. In other Windscreens are made of Fabrics used in cars need Steel is used for load-bear Sheet metal is used for land	n interiors because it esium are importate erefore good for weight that the foam used in the to withstand greater words, it shouldn't a special	looks natural and sant for car malght-saving. In car seats shouldn's temperature det become brittle.  glass to pro and not look oles it is	warm. kers because they are  It be ifferences while staying otect drivers in accidents. d too quickly.
When you heat metal, it e If you leave iron outside i	below by using one wes, contracts, crash unces, softens, freeze axpands and if you con the rain, it	e of the following les, sinks, ignites, es, expands, shrinks ol it, it <i>contracts</i> .	words: boils, evaporates, bursts, rusts, condenses,
If you wash your T-s	hirt in too hot w	ater, it	and the colour
	f it comes in contact f you leave it in the som the freezer, take it y. Don't put it back a ealth.	with very cold glass un. tout one day earlier ngain. If it	at 100 degrees. s. r and put it in the fridge so one more time, it

English for Mechanical Engineering

silicone

If you put sugar into your tea and mix it	t gently, it
If you pull this rubber band, it	
If you drop the ball, it	off the floor.
If you overload your laptop, it	and you need an expert to fix it.
If a balloon gets in contact with a cactus	s, it
The candle for many i	hours before it goes out.
If you throw a stone into the sea, it	, but if you throw a wooden plank, it



Find at least three different materials for these properties:

It can be burned. It's extremely hard.

It's brittle. It's durable.

You can't stretch it easily. It's non-combustible.

It's a good insulator. It's very light. Wood, plastics, paper

#### **5.3 TOOLS**

In your work life you will come across many different tools, from hand tools (such as: a hammer, screwdriver, pliers, vices, wrenches; measuring tools: squares, callipers, levels; cutting tools: saws, chisels, punches, snips; finishing and repairing tools: files, scrapers; boring and drilling tools; fastening tools: bolts, rivets; cutters...) to various machine tools (lathe, drilling and boring machines, planning and shaping machines ...).











Pictures 11, 12, 13, 14, 15, 16: Different tools Source: www.squido.com

I. Match the descriptions with the tools/instruments/machines (or their parts) and decide which professionals might use them:

lathe micrometer pencil file bulldozer jack computer mouse knife drill ruler

Part of the machine that helps you search the Internet. Computer mouse

A machine used for excavation work.

A metal tool with a rough surface.

An instrument consisting of a thin stick of graphite enclosed in a piece of wood.

A device for lifting heavy weights of the ground.

A small hand tool that is used for cuts.

A measuring instrument used to measure very small distances in metal.

A tool or a machine for making holes.

A tool for measuring, made of wood or plastic.

A machine that shapes pieces of wood or metal.

II. Complete each sentence with the appropriate tool, choose between: axe, file, scissors, spade, hammer, saw, screwdriver, spanner, drill, knife, pliers:

You can make these edges smoother with a <i>file</i> .
can't open the back of television without a special
You can cut that wooden plank in pieces with this
For twisting electrical wires you will need
The good thing about this is that it has a very sharp blade.
We could chop the wood for the fireplace if we had an
am going to burry that dead bird. Where is the?
Oh dear? I've hit my finger with the It really hurts.
You will not be able to make a hole without a special

If you want to wrap that present, you will need the	to cut the wrapping
paper.	
These nuts are very difficult to undo. I might need a larger	•

III. Read this story about a tool manufacturer and then answer the questions below:

Astor Industrial Corp. has been in the international trading business since 1979. While we specialize in hand tools, electrical items, and hardware, we are also active in a variety of other industries providing OEM solutions to our customers. We also provide Engineering Solutions and our engineers can assist you in your new product development. Astor acts as a sourcing agent for our customers and provides an easy gateway to Asian suppliers in various industries. With facilities in Taiwan, Hong Kong, and China, Astor has a good network of suppliers who can fulfill all of your requirements. Our experienced staff can perform, Factory Audit, Contract Negotiations, Shipment Arrangements, and Inspections for you. Creating great savings in time and money for your company! Please take a look through our website to see a sample of the products we offer. Please keep in mind Astor's products is not limited to the items on our website. Send us any inquiries you wish for us to investigate and we will be happy to assist you. We thank you again for your time and hope to be working together in the near future!

**Contact Information** 

Astor Industrial Corp.

Company Name: (Exporter, Buying agent, Manufacturer)

Contact Person: Elaine

Phone: +886/2-28261385 Fax: +886/2-28277472

(Source: www.asianproducts.com)

When was Astor Industrial Corporation established? It was established in 1979.

What do they specialize in?

Who can assist you in your product development?

Where can you find their subsidiaries or contacts?

Why can their offer help you save money?

Are all their products shown on their website?

Who is the contact person?

Write down the parts of the lathe or the CNC machine and describe its use.

#### **5.4 THE PASSIVE VOICE**

The Passive Voice is not much used in our mother tongue, but extremely often in English as the stress is on what has/was/is/will be... done/achieved/finished/completed...

I. Read these sentences and decide whether they are active or passive:

This is where the crash tests are carried out. *passive* 

We use crash-test dummies to measure the injuries.

A 1,360 kg barrier is driven into the side of the car at 50km/h.

Side air bags can prevent a lot of serious head injuries.

But a lot of side bags are not designed to protect smaller passengers.

We now use smaller dummies in a lot of our tests.

These tests are expensive to set up and carry out, but they can save a lot of lives.

Over 40,000 people a year are killed in traffic accidents in the USA only.

Boxes should never be lifted manually.

A fork-lift is much safer than manual lifting.

My new set of tools was made in China.

It is of good quality so it can be used all the time.

# II. Put these two stories into the Passive Voice:

1

If there is <u>a vacancy</u> we usually advertise it in-house first of all, and if I don't find <u>any suitable candidates</u>, then we advertise <u>the job</u> in newspapers. We ask <u>the applicants</u> to send their CVs and we invite <u>some of the candidates</u> to an interview. After that, we make <u>a list of suitable candidates</u> and ask <u>some of them</u> back for a second interview. We choose <u>the best candidate</u> and then I check <u>his or her references</u> and if everything is OK, we offer the successful applicant <u>the job</u>.

A vacancy is usually advertised in-house first and if no suitable candidates are found, the job is advertised in newspapers.

2

Thieves held the manager of the Ridgeway Hotel at gunpoint last night during a robbery in which they took <u>nearly \$50,000</u> from the hotel safe. They also broke into <u>several of the bedrooms</u> and removed <u>articles of value</u>.

The thieves made <u>their escape</u> through the kitchen where they damaged <u>several pieces of equipment</u>. They injured <u>the chef</u> when he tried to stop them and left <u>him</u> lying unconscious on the floor. But they didn't enjoy in their money long because the police arrested <u>them</u> this morning.

#### 5.5 COUNTABLE AND UNCOUNTABLE NOUNS

When talking about different materials and tools we also need to know whether these nouns are countable or uncountable. In English most nouns are countable and have singular and plural forms: these are the names of separate objects, people, ideas and can be counted (a book – books, a box – boxes, a watch – watches, an idea – ideas, an engineer – engineers, a child – children, a man – men, a mouse – mice …) but there are also a lot of uncountable nouns which are the names of materials, liquids, abstract qualities, collections and only have singular or plural forms (meat, sugar, water, steel, carbon, money, luggage, paper, information – pliers, glasses, scissors, binoculars, jeans, clothes, police, handcuffs …). Sometimes the same noun can be both, countable and uncountable (Glass is a fragile material. There are four glasses on the table. I need glasses for reading.)

I. Sort these nouns into two groups: one for countable and the other for uncountable (some may be both):

tip, trip, clothing, work, glass, case, baggage, fact, news, research, job, advice, travel, accommodation, chocolate, costume, equipment, spaghetti, stone, rubber, athlete, patience, tea-bag, concrete, coal, braces, traffic-lights, knife, iron, rain, hair

countable: trip,

uncountable: tip,

II. Are the sentences below correct or wrong? If they are wrong, correct them.

I've just heard a wonderful news. I've just heard (some) wonderful news.

I need an pen. Can I borrow yours?

The contents of the house were sold after his death.

Physics were always my favourite subject.

I need scissor to cut this paper.

She has done some research on the life of dolphins.

The people who works there is very well-paid.

The police is looking for a suspect.

He likes playing billiard.

My knowledges in that area are very poor.

In the north of the country most houses are made of stones while in the south bricks are more common.

I have a new leather jacket.

This railing is made of irons.

Look around your house and try to find as many countable and uncountable nouns that you can.

# **5.6 EXPRESSIONS OF QUANTITY**

When we talk about different materials and we want to express how much of them we need, we use different expressions of quantity, such as: some (We need some water to cool this tool.), any (We don't need any more raw materials at present.), a lot of (There's a lot of valuable steel available.), much/many/more (How much time do we need to finish this project? There are many engineers involved in this project.), several (We need several new machines to modernise our production.), every/each (Every engineer should know about this new invention.), a huge amount of (We require a huge amount of plastic to pack all of our finished products.), all/whole (The whole company will benefit from this improvement.), no/none/not (They invested no money in the modernisation, so they were not competitive anymore.), a little/a few (We need a little more time. A few of our workers are on sick leave.), something/somewhere/someone/noone/nobody/nowhere/nothing/anything/anybody/anywhere /everybody/everything/everywhere (I need somebody to help me. Something came up. There's nothing we can do. I couldn't find it anywhere.), both (Both our partners declared bankruptcy.), half (We will invest half of our profits into buying new premises.)...



Fill in the missing expressions of quantity:

Did you make *any* progress at the meeting?

Shall I send you	samples of our latest fabrics?
We only made _	money on this product so perhaps we should start phasing it
out.	
I met	potential customers at the trade fair.
	has used my files and now I can't find!
	told me that this information is confidential.
I'm sorry to hear	that went wrong on your trip to Barcelona.
The flood caused	l damage in our warehouse.
	person involved in this project should do their best.
Managers spend	more than of their work time at meetings.
Do you have any	ridea how material do we still have on stock?

Search your pockets and your bag and describe what you have found – use different expressions of quantity.

# **SUMMARY**

In this unit we obtained a lot of useful vocabulary and learned about technology in general, different types of materials and some tools you will come across on daily basis but also in your professional life. We also revised the Passive Voice and countable and uncountable nouns and expressions of quantity.

#### SHORT REVISION

- 1. Try to analyse the importance of technological discoveries and inventions in our daily life.
- 2. Describe the tools that are found in your own home, are they mechanical or machine? What do you use them for? How often?

# 6 INFORMATION TECHNOLOGIES AND COMPUTER SCIENCE

After this unit you will know about the computers, their effect on our life and you will be able to use and discuss them more confidently. You will also learn how to write e-mails and you will be able to use them, not just in your private life but also in professional correspondence.

Do you have a computer at home? Can you imagine life in the modern world without them? What effects do computers have on you in your daily life?

Information systems collect, organise, store, process, retrieve and display formats. Information technology enables easier work, more detailed processes and fast communication. We all know that computers have hardware which does all the physical work the computers are used for (CPU – central processing unit, printer, graphic card, keyboard, monitor, mouse, RAM – random access memory, scanner, modem …) and software which are instructions for the computer and without which the computer as such is just a useless machine as it cannot function (in Slovenia it's usually Microsoft programmes such as Windows).

If you thought of a computer as a living being, then the hardware would be the body that does things like seeing with eyes, lifting objects, and filling the lungs with air; the software would be the intelligence, interpreting the images that come through the eyes, telling the arms how to lift objects, and forcing the body to fill the lungs with air.



Pictures 17, 18, 19, 20: Different types of computers and their parts Sources: www.treehugger.com, www.vcs-techs.com

Draw and describe your own computer.

I. Complete the sentences below with the missing expressions, choose between: icon, website, cursor, mouse, download, reboot, highlight, paste, engine, copy:

If you are writing something, the text appears at the position of the flashing <i>cursor</i> .
If you are unable to find the information that you are looking for on a,
try typing out a key word in the search
If you want to transfer some text or a picture from one document to another, you can
and
Sometimes it really takes a long time to something from the Internet.
If you want to open a certain document, just click on the appropriate
With all the viruses, warms and similar, your computer might crash. In that case you might
have to it.

If	you	want	to	a	certain	part	of	the	text,	hold	down	the	left
				button and drag it ove	r the text	t.							

II. Complete this presentation with the missing expressions, choose from the following: processor, integrated, battery, powerful, graphics, performance

# Incredibly fast graphics processing

MacBook Pro delivers both powerful graphics and long
battery life. Every MacBook Pro features the NVIDIA GeForce 9400M
graphics processor, which provides an outstanding everyday graphics experience with up to
a 5x performance boost. Power your way through the latest 3D games - including Call of
Duty and Quake - and enjoy improved performance with iWork '09, iLife
'09, and everything you do in Mac OS X. The power-saving NVIDIA integrated
also keeps you up and running throughout the day, with up to 7 hours of
life on the 13- and 15-inch MacBook Pro and up to 8 hours on the 17-
inch MacBook Pro.

(Source: <u>www.apple.com</u>)

III. Read this short message about corporate governance and then answer the questions below:

#### Message from Our Chairman

At Microsoft, success comes from our passion for creating value—value for customers, shareholders, and partners; value for our employees and the communities around the world where we do business. Underlying our success is an approach to corporate governance that extends beyond simple compliance with legal requirements. I believe that corporate governance must provide a framework for establishing a culture of business integrity, accountability, and responsible business practices.

Strong corporate governance at Microsoft starts with a Board of Directors that is independent, engaged, committed, and effective. Our Board establishes, maintains, and monitors standards and policies for ethics, business practices, and compliance that span the company. Working with management, we set strategic business objectives, ensure that Microsoft has leadership that is dynamic and responsive, track performance, and institute strong financial controls. We believe in strengthening investor confidence and creating long-term shareholder value so we can continue to deliver technology innovations that provide opportunities for customers and for Microsoft.

Bill Gates, Microsoft Chairman

(Source: www.microsoftcorporation.com)

#### Answer:

Who is Bill Gates? He's the founder and the chairman of Microsoft, he's also one of the richest people in the world.

What is the basis for the success of Microsoft?

What does corporate governance provide?

What are the characteristics of their Board of Directors?

What does it do?

What are some of the company's values or beliefs?

#### 6.1 E-MAILS

With the explosion of information technology, we use more and more e-mails. E-mail is extremely convenient, with the click of a mouse, an e-mail can be sent to a colleague in the next office or a business partner at the other side of the world. Although you are probably more used to sending quite private e-mails to your friends, you will also have to learn to write formal e-mails to your existing or potential business partners – you need to remember that you have to be polite and follow almost the same rules as for formal letters.

E-mails tend to be less formal, but there are still some points we should consider: address messages carefully: we've all heard stories of messages being sent to unintended recipients: this may be funny, but also disastrous; remember that e-mail messages are not private: you must have in mind that every e-mail you send may be read by anyone and everyone else; remember that e-mails may be saved and used as a proof of certain communication.

# 10 Tips for office E-mail:

Carefully read e-mail and answer all questions, to avoid going back and forth.

Avoid sending confidential information via e-mail - make a phone call or ask to discuss sensitive issues in person.

Don't use text message or chat jargon unless it is widely used within your organization.

Include a brief greeting that is appropriate for status of sender. Also include a closing.

Watch the tone - remember no body language can be interpreted, only your words.

Use spell check and read message for errors before sending.

Respond promptly; if you cannot respond at the time, indicate that you will do so later.

Use proper colour, fonts, layout, and formatting (those that fit with your work environment).

Avoid "casual speak" or slang; use abbreviations wisely.

If you e-mail back and forth three times, and the problem is not resolved, pick up the phone.

Look at this example of a rather formal e-mail:

From: milena.strovs@guest.arnes.si

To: Gab. de Relações Internacionais [mailto:gri2@iscap.ipp.pt]

Subject: International week in Porto

Dear Ms Carneiro,

Thank you very much for your formal invitation.

I have completed the registry form and I am returning it to you.

If there's anything else, please do not hesitate to contact me.

Yours sincerely,

Milena Strovs-Gagic



I. Read this e-mail and then answer the questions below:

Dear Mr. Philtre,

Thank you for your e-mail and for sending me the specifications.

I have no idea if that is possible but I would like to discuss them in person so if you have any time until the end of the week, we should try to arrange a meeting. Although I'm also quite busy I will try to work my obligation so I can adapt to your availability.

This would be essential as we need to work out the detail for the production line.

I hope to hear from you very soon.

Best wishes,

Tom Young

Why would Tom like to meet Mr. Philtre in person? Because he's not sure if what they want to do is possible.

If Tom is so busy, how can they meet then? Why is it necessary that they meet?

II. You received this e-mail from your customer. Complete it with the right words, choose from: appreciate, attachment, forward, received, delivery, possible, sending, order, unfortunately, writing

From: pierre@sr.g.fr

To: francis.brown@dillinger.co.uk

Subject: Order no. 7H325K

Dear Mr. Brown.

Dom Mil Brown,
I'm writing to you because of the problem with the delivery which we from you last week. The was 1,000 dash
panels.
, 50 boxes that arrived were empty. Can you send us the missing
items as soon as? We would also it if you
could look into the problem to make sure this does not happen again. I'n you a scan of the note as an
I look to hearing from you soon.
Best wishes,
Juliann Pierre
III. Use the following words and phrases to complete the e-mail: I'm attaching, Is there, I would also be good, Please confirm, Thank you so much, There will be, Could, Would you like:
Dear Mrs. Anniston,
Thank you so much for the project outline we discuss the specifications of the main unit at your earliest convenience? to
discuss the schedule to have a conference call (you, me and Brad

Cooper)?		a	convenient	time	at	the	end	of	this	week,	Friday
preferably?											
	_ a draf	t budget	•			so	ome (	chai	nges	when w	e agree
all the specifications,	of cour	se.									
	_ that	you've	received	this	mes	sage	so	I	can	make	further
arrangements.											
Best regards,											
Samantha Cook											

Name some abbreviations (and explain them) that you use when communicating with your friends.

# **SUMMARY**

In this chapter we talked about some general points of the information technology and we learned how to write formal e-mails (similar rules apply as for formal letters).

#### SHORT REVISION

- 1. Discuss the differences between hardware and software.
- 2. What is RAM?
- 3. Analyse the differences between informal and formal writing in e-mails.
- 4. Can you name some tips for successful e-mailing?

# 7 HEALTH AND SAFETY AT WORK

After this unit you will be able to discuss the rules and regulations about safety at work, build up your vocabulary and know more about verb patterns.

Have you ever worked? Was it in a dangerous environment? Did you have to follow any special regulations? Have you ever passed any kind of exam on health and safety at work? How did it look like – just theory or also a practical part? What did you learn?

Safety and health is an area concerned with protecting the safety, health and welfare of people engaged in work or employment. The goal of all occupational safety and health programs is to foster a safe work environment. As a secondary effect, it may also protect co-workers, family members, employers, customers, suppliers, nearby communities, and other members of the public who are impacted by the workplace environment. The average person finds it difficult to assess risks and that is why work practices need to be regulated.

Safety in the workplace is critical to the success of your business, no matter what size it is. As a business owner you have responsibilities regarding health and safety in your workplace. Even if you don't have any employees, you must ensure that your business doesn't create health and safety problems for your customers and the general public.

Knowing and understanding the Occupational Health and Safety laws can help you avoid the unnecessary costs and damage to your business caused by workplace injury and illness.

There are many examples of dangerous activities at your workplace, such as welding without goggles, working at a construction site without the protection of a hard hat, working in noisy environments without ear plugs or mufflers, working in production with different possibly hazardous materials without protective gloves and/or clothes, smoking near inflammable substances...

There are different risky or hazardous situations, such as: combustion, contamination, dust, the possibility of explosion, poisonous fumes, gas leakages, toxic vapors, the danger of electrical shock ... which can all have effects on us and can cause lethal or very serious damage to our body (for example: vomiting, dizziness, burns, birth defects, cancer, genetic damage).

All around risky environments or materials there are warning signs that people have to take seriously.

Below you can see three such examples:







Pictures 21, 22, 23: Warning signs Source: www.pharmaininfo.net, www.ehs.uky.edn

Try to find some warning signs and explain them.

I. The person in charge of health and safety is trying to explain the rules and regulations to the new employed workers. Complete what he says by filling the blanks with the missing expressions. Choose from: noise, protection, drowsiness, dust, accidents, smoke, poisonous, fumes, risks, burns, goggles, safety, masks, plugs:

New government regulations mean that we are a	all required to be more aware of risks in the
workplace. As your superiors we will provide	you with the necessary
equipment. You have to wear	to protect your eyes when working on the
welding machines. You should also wear ear	
from the machines is so high that it could da	
in the air, so don't forget to we	ear to stop you breathing it
in. You are also personally responsible for your s	
happen.	
We also have a possibility of fire here. Ren	nember that it is extremely dangerous to
near the chemical storage. That	at is why, we have a no-smoking policy not
just inside the company but also in its proximity	7. I'm sure you are aware that chemicals are
very so they must never	enter your mouth. They could cause
if you get them on your	skin. If you forget to put the lid on,
might escape and cause headac	hes, or dizziness.

# II. Name the safety items below. Can you add more?



Pictures 24, 25, 26, 27, 28, 29, 30, 31, 32: Protective clothes, shoes and other equipment Source: www.jmbtraining.com

III. Read this report, complete the safety rules and then answer the questions below:

# Accident with a ladder

Jason had an accident yesterday and he cut his head badly. He is in hospital now.

This is what happened: he took a metal ladder from the storage and carried it into the machine shop. Then he put it onto some boxes next to the main door of the workshop (which was closed but not locked) and climbed the ladder. While he was repairing the electric cable, someone opened the door and walked into the workshop. The door hit the ladder and it fell over. Jason fell from the ladder onto the floor. He landed on his feet, but there was some oil on the floor and he slipped and cut his head on the drilling table.

#### SAFETY RULES

a) Wet or oily floors must be <i>cleaned</i> before a ladder is <i>put up</i> .
b) Metal ladders should never be used for work.
c) When you a drilling machine, always have the work-piece in a vice.
d) When the ladder is near the door, it must be
e) The ladder must never be on boxes or drums.
f) Never a bare electric when the electricity is
on.
Now answer these:
Which of the above rules did Jason break?
Where is he now and why exactly?
Whole is ne now and why exactly.
7.1 VERB PATTERNS
There are certain rules when we use the gerund and the infinitive, let's mention just a few. The
gerund or the –ing form is used as the subject or object of a sentence (Working in this
company is very rewarding. She hates being criticised.), after certain verbs (I like travelling
on business. I can't stand sitting in a meeting and doing nothing. He started producing this
machine two years ago.), after prepositions (On hearing the good news everybody started
clapping.), in set and idiomatic expressions (Paris is always worth visiting. It's no use crying
over spilt milk.) Infinitive is used after certain verbs (He decided to retire. They want us to
lower the prices. They offered to show us how to adapt the production line.), to express
purpose (They bought new machinery to modernise their production.), after question words (I
don't know what to do or where to start.), after expression too, enough (He was too young to
become a manager. This isn't good enough to solve all our problems.), after adjectives (It's
impossible to do anything about it now. It was difficult to follow his presentation.).
impossible to do unything dood it now. It was difficult to follow his presentation.).
Con the second s
I. Describe how to do something by using a preposition (by, without) and the –ing form (e.g. Start this machine by pressing the red button.):
form (e.g. Start this machine by pressing the red button.):
I loogan ad the most. I didn't was the anomaly
I loosened the nut. I didn't use the spanner.
I loosened the nut without using the spanner.
We got rid of the terrible smell. We opened the windows and made a draught.
She managed to separate the two stuck glasses. She didn't break them.
·
He built a nice bookcase. He didn't look at the instruction manual.
II. Complete these sentences by a suitable ending in –ing:
Thank you for helping me when I was in such a difficult situation.
I'm looking forward to
I'm looking forward to A new pizza place was opened in town last week. How about?
I'm thinking of .
I'm thinking of When I'm too tired I often feel like
Our clients often insist on
There's no point in, we'd better wait and do it tomorrow.
I'm afraid the manager is busy at the moment. Would you mind for a
few minutes?

### III. Fill in the missing infinitives:

Scientists in the Silicone Valley are hoping to do a little more about the problems an
average consumer has with the computer.
Things are looking good for engineers as there are a lot of companies who want
them.
I'm waiting here the visitors of the company and show them around.
We refused them as the quality of the delivered items was questionable.
He didn't have time so he asked me back later.
My friend encouraged me for the position.
They have invited me at the conference.
IV. Fill in either the –ing form or the infinitive:
Dear Mr. Brown,
Thank you for your letter of 25 <sup>th</sup> March in which you stated that you were considering
placing (place) an order of our superior cutting machine.
We can arrange (supply) you with your order in 4 weeks' time. If you
decide (go) ahead with the order, we will agree (give)
you a 5% discount for payment within one month.
You mentioned that you wanted (try) out the machine yourself. This
shouldn't be a problem. Just contact us and we'll arrange when you can see the machine 'in action'.
Please do not hesitate (contact) me if you have any further questions.
I look forward to (hear) from you again soon.
Yours sincerely,
Peter Harrow
Managing Director

# 7.2 EXPRESSIONS WITH WORK, TAKE, GET, WORK, MAKE AND DO

English is a language that has many set phrases, collocations and idioms. We'll have just a quick look at some of them here.

You can for example take a break, take time, take notes, take a photograph, take someone's temperature, take a seat, take a job, take offence, take action, take size 39 shoes, take an exam, take the bus, take a free kick in football, take a bag, take somebody somewhere ...

You can work with something, work yourself free, work at, on, out, forward...

You can get out, get something, a good grade, punishment, an early retirement, a bad headache, angry, used to something, get on the bus, the phone or the door, help, a promotion, fired ...

You can have a job, problems, the nerve to do something, ideas, an illness, an operation, experiences, children, no idea, a good time, a holiday, a meeting, a meal, second thoughts, some time off...

You can make a plan, a point, an excellent suggestion, your bed, a mistake, an offer, a cake, a dent in the roof of your car, a habit out of something, a decision, a profit or a loss, someone's day...

You can do any kind of work (homework, housework, the dishes, the ironing, cooking, writing, acting, a job...), the shopping, someone a favour, nothing, well, aerobics or yoga, 50 km/h, drugs ...



Complete the sentences with the correct form of take, get, do, work or make:

I'm going to take six months maternity leave after the baby is born.
His wife is not very well so he's going to a few days off.
I'm toying with the idea of an early retirement next year when I'm 59.
Have you out how to solve this problem, yet?
He ten years for robbing a bank and wounding the teller.
Hopefully she'll a promotion when her boss retires.
Would you a picture of us, please?
These pills are just not it for me. I'll have to see my doctor again.
I always my bed in the morning.
I hope you a great time on your holiday.
She cooked lunch and he the washing up.
If she keeps going like that, she'll a heart-attack.
Many girls aerobics at the gym lessons.
He's rich by selling all his shares.
Let's go out and out a good meal from that new restaurant.
If she doesn't start working harder, she fired.
I don't know where I'll go on holidays. I haven't any plans yet.
After finishing high school, he decided to a year off before going to
university.
Come in and a seat.
mistakes is human, we all do it.
At the weekends I usually out of the house to meet my friends.
My plan and they agreed to do it my way.
I'm sick and tired of up so early, I'll have to find a nine-to-five job soon.
Someone crashed my car at the car park. That really me angry.
When my teacher explains something, I always notes.
After travelling all day, she a terrible headache.
I hate to ask you but could you me a favour?

# **SUMMARY**

In this unit we discussed health and safety at work and found out that there are many risky and dangerous items at almost any workplace. We got to know more about protective clothes, gloves, shoes... We also built up our vocabulary by learning about expressions with take, get, make and do.

# **SHORT REVISION**

- 1. What are some general health and safety regulations?
- 2. Demonstrate how you can protect yourself in dusty or noisy environments.
- 3. Think how you could put out a fire in the classroom and analyse the safety procedures at school.

### **8 AUTOMOTIVE**

After this unit you will definitely have a much better knowledge of the automotive vocabulary, be able to describe the outside and inside of a car, talk about the different types of vehicles, their advantages and disadvantages. You will also revise relative pronouns and relative clauses.

Do you have a car? What make do you have? What would be your ideal vehicle?

### 8.1 VEHICLES IN GENERAL

A vehicle is a mechanical means of conveyance, a carriage or transport. Most often they are manufactured (e.g. bicycles, cars, motorcycles, trains, ships, boats, and aircrafts). Vehicles may be propelled or pulled. Vehicles that do not travel on land are called crafts, such as watercraft, sail craft, aircraft, hovercraft, and spacecraft. Land vehicles are classified broadly by what is used to apply steering and drive forces against the ground.



I. Can you name the vehicles in the picture? Can you compare them?



Pictures 33, 34: Different types of vehicles Source: www.london.gov.uk

- II. Do you know what these are: a hatchback, a lorry, a road sweeper, a cab, a people carrier, a carriage, a bus, a sports car, a cross over, a van, an executive car, a bulldozer, a scooter, a tram, a towing vehicle, a road train, a refuse collection vehicle, a trailer?
- III. Choose the correct expression from the possibilities in brackets:

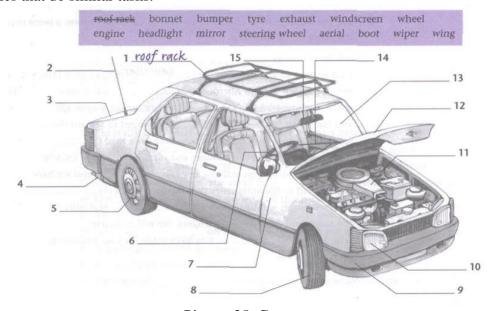
Most big cities were built long before the heyday of the private car. As a result they rarely
have enough space for moving traffic or parked vehicles and long queues of stationary
(standing, settled, stationary, static) vehicles are a common sight. Indeed some cities end up
being almost permanently (stuffed, saturated, crammed, suggested) during
the day. Those that have a relatively free (flow, current, tide, flood) or
traffic at non-peak periods of the day do not escape either. The (push, rush
hasty, hurry) hour of early morning or early evening can easily see traffic brought to a
(standstill, hold-up, jam, freeze). The effects of exhaust
(smells, odours, fumes, stinks) on air pollution in cities has been well documented. Buses
might be seen as the solution, but they move slowly because of the shear
(size, volume, breadth, depth) of other traffic, thus encouraging more commuters to
abandon (civic, mass, public, popular) transport.

IV. Match each person with one of the comments: commuter, conductor, passenger, driver,

future, since everyone will have a computer at home. There might even be more people walking and horse-riding, for pleasure and \_\_\_\_\_\_ (exercise, keep fit, energy, healthy).

#### **8.2 CARS**

An automobile or motor car is a wheeled motor vehicle used for transporting passengers, which also carries its own engine or motor. Most definitions of the term specify that automobiles are designed to run primarily on roads, to have seating for one to eight people, to typically have four wheels, and to be constructed principally for the transport of people rather than goods. However, the term automobile is far from precise, because there are many types of vehicles that do similar tasks.



Picture 35: Car parts Source: Vince: Advanced language Practice, 1994



Picture 36: Different car parts Source: www.cartuningcentral.com



Picture 37: A car, taken apart Source: <a href="https://www.cartuningcentral.com">www.cartuningcentral.com</a>



Picture 38: The car's interior Source: <a href="https://www.cartuningcentral.com">www.cartuningcentral.com</a>

I. Complete the sentences with the appropriate expressions, choose between: bumpers, boot, bonnet, seat belt, indicator, aerial, logo, sunroof, windscreen wipers, tyres, badge

You open the bonn	et to look at the enging	e.	
The	absorb small impacts	in an accident.	
Don't forget to retr	act the	before using the car	wash.
Can you put my sui	itcase in the	, please?	
When it starts raini	ng, you need to switch	n on the	

"What model is that?" "I	don't know I ca	an't see the		from he	re."	
It is important to infla						fuel
consumption.						
The Mercedes star is a we	ell-known	_				
Open the			ir into the o	car		
I wish all drivers would u					ht or left!	
Do not forget to fasten yo		it can say	n uicy wan	in cose of a	n or icit:	
Do not lorget to fasten yo	iui	, it can sav	ve your me	III case of a	iii accideiit.	
II. Match words on the left v	with those on th	ne right to fin	d the exteri	or parts of	the car:	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10 118110 00 1111		or pures or		
1 head	A) wipers					
2 rear	B) lights					
3 exhaust	C) plate					
4 front	D) cap					
5 petrol	E) bumper					
6 windscreen	F) mirror					
7 wing	G) handle					
8 door	H) pipe					
9 number	I) lights					
9 Humber	1) lights					
1 R 2	3		1		5	
1 B 2 6 7	3 8	<del></del>	4 9		<i>3</i>	_
0 /	0		<i></i>			
III. Complete the story belo	w with the ann	ropriata avpr	accione: co	mnonente e	exterior wa	ldad
data, quality, shell, asse				-		
	mory, whereasi	ly, schedules	, uate, snop	o, mame, spo	serric, supp	11018,
rear						
Almost overy our is produ	and to the oust	omor'a anasi	fia raquiran	anta a bu	ilt to order	201
Almost every car is produ			-			
As soon as a car is ord		-		_	-	-
production						
company's own pre-asse		s. This is to	o make st	ire that an	the neces	ssary
arrive on t			1 1	1 (1		1 1
First of all, a small						
This d						
communicates	with conti	of units alon	g tne produ	iction line. I	in the body	snop
the floor pan, wheel arch	ies, side panels	and roof are	·	toget	her by robo	its to
make the			– the door	s, boot lid a	and bonnet	– are
then mounted to make the						
The finished body						
determines the colour. In						
front and						
After con		check, the f	finished car	can be rel	eased. It is	now
ready for delivery to its no	ew owner.					
IV. Complete these sentence	es with the pass	sive form of t	he verb in l	orackets:		
This model is produced (1		•	in Poland.			
German cars						
Theirs new car				ears ago.		
The orders	(can place) by	fax or onlin	e.			
The cars (	assemble) by re	obots since th	ie previous	century		

Spare parts	(can buy) from your local dealer.
The interiors	(design) by a computer for quite some time.
Tyres	(should replace) before they wear down completely.
The sales of car	(plummet) in the last few months.

# V. Read the story and answer the questions below:

Over the last ten years people have got used to the sight of very small cars parked in tiny parking spaces. Smart is one of the world's youngest car makes and yet the *smart fortwo* is such a distinctive car that it has already been included as an exhibit in the Museum of Modern Art in New York – one of only six cars to attain this distinction.

In April 1994, the Micro Compact Car AG was founded in Switzerland as a joint venture between Mercedes-Benz and Swatch. Nicolas Hayek, the inventor of the Swatch watch, brought his idea for an ultra-short small car, and Mercedes-Benz contributed expertise and experiences from more than a hundred years of building cars.

Engineers devised a car which is not only extremely mobile and efficient, but also very economical. Its other key feature is safety, with its unique tridion cell.

After starting development in 1994, the *smart fortwo* celebrated premiere at the Frankfurt Motor Show in 1997. Production in Humpback, France, started in July 1998, and in October sales took off in other European countries. In 1998, smart became a 100% subsidiary of what was then Daimler-Benz AG.

There is no doubt that the *smart fortwo* is a leader in urban mobility. All smart vehicles embody the same brand values and have the same 'DNA': innovation, functionality and 'joie de vivre'. They appeal to people who are sporty, independent and young at heart, people who love clever solutions and are open to new idea.

What are the advantages and disadvantages of the *smart fortwo? Advantages are: it's easy to park, it's mobile and efficient, economical and safe; disadvantages are: it's expensive, it's sometimes too small.* 

Where was it exhibited?

Who first got the idea for such a car? Who was he?

When did the car have its first premiere at the motor show?

Who were the owners at the beginning?

Why is it the leader in the urban mobility?

Who are the main customers?

Would you ever buy a smart fortwo? Why/why not?

# VI. What do you do when:

visibility is poor because of fog? *Turn on the lights*. your seat is too low? you think you need oil? you want to get out of the car? it's getting dark? it's warm and sunny? you think your tyre pressure is low? your passenger has no leg room in the back?

VII. Look at this extract from a tour of a car factory. Complete the text with the missing words: clutch, combustion, power, crankshaft, explosion, cylinders, distribution, fuel, piston, spark plug, rotational

"Now we come to the engine. The principle of the internal <i>combustion</i> engine has not changed in the last 100 years. The engine takes in and air which is compressed in a combustion chamber. Then this mixture is ignited by a to produce an, which moves the in the cylinder. The up and down motion of the piston in the
cylinder is converted into rotation motion by the The The
The size of the engine determines the The more there are, the more powerful the engine. This power is transmitted through the, the gearbox, the propeller shaft and the axles to the wheels. The position of the engine can vary, but generally speaking it is mounted at the front. In some sport cars, the engine is mounted at the rear or in the middle because of weight So, that's enough about the engine for the moment, let's move on to the next stage."
VIII. Match the words with the right description: accelerator, chain, gear, bonnet, handlebars,
reverse, brakes:
Go into this if you want to go backward. reverse  Put your foot on this to make the car go faster  Change this in a car to change speed  Hold these when you ride a bicycle  This might be on your bicycle or around your neck  Put these on if you want to stop  Your car engine is usually under it
IX. Draw a car with the following parts: roof rack, bonnet, bumper, tyre, exhaust, windscreen, wheel, headlights, mirrors, steering wheel, aerial, boot, wipers, wing
8.3 RELATIVE PRONOUNS AND CLAUSES
Relative clauses are divided into defining (provide necessary information without which the sentence is incomplete: I know a man who has 10 children. This is the vase which/that I was given for my birthday.) and non-defining relative clauses (they give additional information: Marilyn Monroe, who died very young, is still an icon. Their advertisement, which I saw yesterday, is very impressive. My mother, who will be 80 years old next year, asked me to find her a painter to decorate her house. Jack Jones, whose phone number I can't find, is our loyal customer.).
I. Fill in the missing relative pronouns (who, whose, what, which, where):
A quality controller is a person <i>who</i> checks the production systems.  Does anyone really know responsibility this is?
I don't know happened! Suddenly the fire started!
Do you know the name of the woman is organising the conference?
This is the company offers the most favourable prices for these items.
I don't know company to contact first. They all seem to have a wide range of
products on offer.  The computers you ordered last week have just arrived.
Yesterday I was talking to someone brother went to school with you.

The specialists	repaired our brok	en machinery we	re very efficient
THE SPECIALISTS	icpanicu oui oiok	ch macminery we	

II. Read the specifications for this car and then complete the relative clauses below:



Tight, light body. Great handling. Excellent brakes. Five-star safety. Six-cylinder refinement and performance. Six-speed automatic works well in any shift mode. More interior space. Low cabin-noise levels. 320i struggles to convince at \$50,000-plus. Unforgiving, low-speed ride. Some front-end suspension/tyre noise. Back end can get twitchy on rough roads. Inconsistent steering, with less feedback than before. Tight rear-seat access, and tall adults sit knees up. All seats lack support. Run-flats are expensive (around \$2000 a set) and might be difficult to get.

(Source: www.drive.com.au)

This is a car that has a tight and light body.

Another good feature is \_\_\_\_\_\_\_.

It has a six-speed automatic \_\_\_\_\_\_\_.

The great cabin is \_\_\_\_\_\_\_ outside noise-levels.

A disadvantage is \_\_\_\_\_\_\_.

It has a back end \_\_\_\_\_\_\_.

Run-flats are the part \_\_\_\_\_\_.

#### 8.4 ONE WORD – TWO (OR MORE) MEANINGS

In English there are many words that have more than one meaning – these are the so called homonyms (they can be further divided into homographs and homophones). To name just a few: live, bank, swallow, free, fair, party, see, operation, model, mark, can, wind, house, lead, hard, minute, refuse, wound, read, row ...(sometimes the pronunciation is the same but very often it is different).



I. Fill in the missing words in these pairs of sentences:

I enclose a *free* sample of our latest magazine.

I'm terribly sorry but Ms Cartwright won't be *free* until 4 p.m.

I just need a \_\_\_\_\_\_ of your time.

Dust is so \_\_\_\_\_ that we can't see it with a naked eye.

Unfortunately we have to \_\_\_\_\_ your offer. It's just not competitive enough.

After the rave party there was a lot of \_\_\_\_\_ in the streets.

BMW now have a huge \_\_\_\_\_ in the USA.

He has serious problems with his heart. He's been scheduled for an \_\_\_\_\_ next week.

The concert was going on \_\_\_\_\_ on all major broadcasting companies.

Where do you suppose to when you move abroad?
The singer in that group is gorgeous.
We all know that pipes are dangerous and should be replaced.
She had a sore throat so she couldn't the food.
One early doesn't bring the spring.
I usually got good in school, except in languages.
He was a clumsy eater, so he had several on his white shirt.
She usually sits in the front in the classroom.
If you live near a river, it's useful to learn how to a boat.

## **SUMMARY**

In this unit we learned a great deal about different kind of vehicles in general and about cars in detail, about the exterior and interior parts which we can name now. We also built our vocabulary with words that have more than one meaning and revised relative clauses.

### SHORT REVISION

- 1. Try to name different types of vehicles.
- 2. Compare your car with a luxurious one are there many differences in the exterior or interior.
- 3. Analyse what might be necessary if you wanted to tune up an old Renault.

### 9 ON THE PHONE

In this unit we will be discussing how to communicate with your business partners, clients, customers on the phone so after studying it you will be able to do that confidently and without being afraid that you might offend someone.

How often do you use your phone? Do you call people or just send them short messages? Are there any differences between private and business calls?

Not just in your private life but also in your professional one you will be using the phone a lot: I'm sure you believe you can communicate over the phone but can you really? Formal communication in business situations is very much different from private ones and although private phone conversations differ from one nationality to another, there seem to be one common style of business phone calls.

Preparing for the Business Call

### Step 1

Remember that a business telephone call is comprised of three components: the beginning introduction, the middle bulk of the call, and the end summing up.

# Step 2

Say everything that you need to in order to explain your reason for calling. State when you will return the call or request that the other person call you back. If you have to leave a message, be concise.

# Step 3

Let the other person know at the beginning of the call if you plan to use a speaker phone or record any part of the conversation.

Although e-mail and instant messaging are quickly becoming standard forms of office communication, the telephone still plays an important role in business. Just like a face-to-face meeting, telephone conversations are expected to and should follow certain rules of etiquette to help make the experience pleasant and productive for all those involved.

It's easy to forgo manners when talking over the phone. Distractions abound, from impromptu meetings or email notifications blinking on your computer screen. Remember that a conversation over the phone carries just as much weight as a face-to-face meeting, as it is a great opportunity to communicate in real time.

When making a business call, be sure to first identify yourself and your company. If you're routed to a receptionist or operator, also include the name of the person you're trying to reach. A simple, "Hello, this is Ann Smith from General Motors. May I please speak with Jake Pitt?" will do.

Be prepared with a one or two sentence explanation of the purpose for your call. When you are connected with the person, state the purpose of your call and then be sure to ask if you are calling at a convenient time. This is one of the most overlooked areas of phone etiquette, and

allows the person you're calling the opportunity to better address your needs at a later time. If you get the receptionist and he or she asks why you are calling, give a concise but informative statement that can be easily relayed. Do not, however, assume that your message will be communicated; when you speak directly with the person you are trying to call, repeat your message in your own words. Don't be insulted if you're asked to leave a message or call back later - previous engagements do take priority.

People make business phone calls for specific reasons. Very rarely do vendors or clients call just to catch up. Telephone calls usually lead to some action to be taken, so make sure your first vocal impression is a good one by trying to answer the phone as pleasantly and professionally as possible.

Identify yourself and your company when receiving an incoming call. While it's not impolite to say, "General Motors, Ann Smith speaking," it might be easier on the listener to say, "Thank you for calling General Motors. This is Ann Smith. How may I help you?" Variations on this theme can convey your greeting quite effectively. If you work at a large corporation with many departments, it may also help to include your department or section name, "This is Ann Smith, sales department. How may I help you?"

The hold feature is generally considered a double-edged sword in telephone etiquette. No one is usually available at the exact moment of a phone call, and being on hold simply must be tolerated. However, there are many things the caller and the person taking the call can do to make the experience a pleasant one.

If you must put someone on hold, ask first and - most importantly - wait for their answer. If someone expresses reservation about being put on hold, calmly explain why it is necessary. Perhaps the person they are calling for stepped out of the office and needs to be tracked down, or is on another call. Callers like an explanation for their inconveniences, but don't give away too much information.

Remember to keep the person on hold updated on the status of his or her call every 30 seconds. A simple "She's on another call" or "His meeting is running a little late" is sufficient. It's OK to hang up after three minutes on hold. Call back and ask to leave a message instead.





Pictures 39, 40: Different types of phones Sources: <a href="www.thepointega.com">www.thepointega.com</a>, <a href="www.deakin.edu.au">www.deakin.edu.au</a>

Look at this example of a telephone conversation:

A: Good morning. Lights and lamps. Can I help you?

B: Good morning. I would like to speak to Mr. Green, please.

A: One moment, I'll put you through.

C: Sales Department, Green speaking. How can I help you?

B: Good morning. This is Jeff Plant.

- C: Oh, good morning Jeff. How are you?
- B: Fine, thank you for asking. Busy as always.
- C: So, what can I do for you?
- B. I'm calling about your last delivery. There seems to be a bad batch as some of the spot lights that we ordered do not work properly.
- C: I'm really sorry to hear that. Can you give me some details?
- B: Well, they seem to be weak or they keep breaking down all the time.
- C: So, what do you suggest we do?
- B: I think it would be best if we sent you the whole shipment back and you in return send us a new one. How does that sound?
- C: Good. As soon as we receive this shipment back, we'll check them once again and if you're right, we'll send a new batch as soon as possible. Is that all right with you?
- B: Well, we'd really need these spot lights for the venue we're organising this Friday. So your suggestion is not really acceptable.
- C: What about sending you a specialist who could inspect them on the spot? He might figure out what's wrong and repair them.
- B: That sounds better. When can it be done?
- C: I'll send someone over to you right away.
- B: Great. But what if he can't fix them?
- C: Let's wait and see. If he can't do it, he'll give me a call and we'll try to find the best solution for you then.
- B: Right. I hope everything works out well.
- C: I'm sure it will.
- B: OK, thanks for your time.
- C: No problem. I'll talk to you later. Bye.
- B: Bye.

I. Write down a telephone conversation, follow these clues: you call your business partner, Robert Scoffed, from Motors and Machines, but he's not there, you just want to leave a message for him to call you back as soon as possible as one of the machines you bought from them is making a strange, vibrating noise.

A: Good morning, Motors and Machine. How can I help you?

B: Good morning, I would like to speak to Mr. Robert Scoffed.

*A*:

*B*:

A:

*B*:

A:

*B*: *A*:

II. Read this text about iPhone and then answer the questions below.

It's three devices in one. iPhone is more than just a phone. It combines three devices in one: a revolutionary mobile phone, a widescreen iPod, and a breakthrough Internet device. All that and more makes it the best phone you'll ever use. With the Multi-Touch interface on iPhone, you can make a call simply by tapping a name or number in your contacts or favourites list,

your call log, or just about anywhere. Visual Voicemail lets you select and listen to messages in whatever order you want — just like email.



iPhone shows off your content - music, movies, TV shows, and more - on a beautiful 3.5-inch display. Add to your collection by downloading music and video wirelessly from the iTunes Store. Scroll through songs and play lists with the touch of a finger. Even browse your album artwork using Cover Flow. iPhone uses fast 3G and Wi-Fi wireless connections to deliver rich HTML email, Maps with GPS, and Safari - the most advanced web browser on a mobile device. It has Google and Yahoo! search built in. And since iPhone multitasks, you can make a phone call while emailing a photo or surfing the web over a Wi-Fi or 3G connections.



iPhone comes with some amazing applications. And you can choose from thousands more on the App Store and download them with a tap. Your iPhone gets even better with every new app. Play games. Be more productive. Keep yourself entertained. No matter what you want to do on iPhone, there's an app for that. Stay connected from anywhere. Apps like Facebook let you use iPhone to share photos, status updates, and more with a few taps. Play games a whole new way. With iPhone, you can tilt and tap your way through groundbreaking games like Rolando. Find out what's for dinner. Discover new restaurants on Urbanspoon by shaking your iPhone. What other phone does that? With iPhone, Apple combined innovative hardware features with the world's most advanced mobile operating system to redefine what a mobile phone can do. Applications work together seamlessly and they sync with your computer — whether you're on a Mac or a PC. From its revolutionary Multi-Touch display to its intelligent keyboard to its smart sensors, iPhone is years ahead of any other mobile phone.

(Source: www.apple.com/iphone)

- 1. Why is iPhone so special? *Because it's three devices in one.*
- 2. How can you make a call? By tapping a name or number in your contact or favourite list.
- 3. What kind of display does it have and what can you see on it? 3.5-inch one.
- 4. How can you download the music? Where from? Wirelessly, from i-Tunes.
- 5. What all can you do with it? Make phones, use internet, play games, share photos...
- 6. Would you buy it if you had the money? Why/why not?

## III. Telephone role-play:

You need to telephone your partner at his/her office at Smith and Jones Machinery Limited. You planned to have a lunch meeting but now you can't make it because of an emergency at your workplace. Telephone your partner and tell him/her about this. Try to set a new date.

You need to travel from Leeds to Aberdeen tomorrow on an urgent business. Your company has a travel agent who can help you organise a flight. Call him/her to arrange the details: you need to be in Aberdeen by 10 o'clock and travel back to Leeds the next day, in the afternoon.

You work for CDD Engineering. You need to ask United Express Delivery service to collect a package from your company. Call them to arrange it, have your office address and details about the package ready to give them. Enquire about the price.

You want to stay at the Royal Palace Hotel in London during your business trip - you are attending a three-day conference, from 15<sup>th</sup> to 18<sup>th</sup> June: call them and book a single room with the view of the river.

Call Mr. Flawless, whom you met at the trade fair in Bonn last month. He was interested in your products. Remind him where you met. Ask him if he was still interested in your products. Arrange a lunch meeting. Ask him to suggest a good restaurant. Promise to reserve a table there.



Describe your mobile phone and state the reasons for buying it.

#### 9.1 REPORTED SPEECH

We very often have to report what other people have told or asked us or ordered us to do and we can't do it by using the direct speech, so we have to use the reported speech. There are some rules to follow, such as the rule of one tense back (present forms become past, present and past change into past perfect, will into would, can into could and may into might). We also have to be careful about the word order, especially in questions (He said, 'I live in Slovenia.' - He told me he lived in Slovenia.; She explained, 'These products will be available next year.' - She explained that those products would be available the following year.; He wanted to know, 'When did you start working here?' - He wanted to know when I had started working there.; She asked, 'Do they know anything about this?' - She asked if they knew anything about that.; He said, 'Please do this today.' - He asked me to do that that day.)

I. Read these sentences that a candidate said at an interview. Put them into Reported Speech:

Miss Bridgwater said, 'I'm very interested in working for you.'
She said that she was very interested in working for us.
Miss Bridgwater explained, 'I've been working in the city for three years.'
She explained
She said, 'I like what I do, but I want more responsibility.'
She also said
She told me, 'I have a degree in Mechanical Engineering.'
She told me
She made it clear, 'I can't leave my present position for another month.'
She made it clear .

Munich, Germany. You were asked the following questions:

When will the new product be ready?
How much are you going to spend on promotion?
Will you offer any discounts to your distributors?
Why has it taken so long to develop?
Who will the target consumers be?
Did you have any problems developing this machine?

II. You were a speaker at the conference on new machinery that took place last month in

Who is the contact person?

Now report the above questions to your superior:

They asked me	when the new product would be ready.	
They asked me_		_•
They asked me		_•
•		

III. Change these sentences from direct into Reported Speech:

'Where have you been so long?'	
He asked me where I had been.	
'I'm writing my CV.'	
He told me	
'I'll phone you at seven o'clock tonight.'	
She promised	•
'He's never made such a stupid mistake before.'	
Rebecca said	•
'Don't overtake here.'	
The sign warned us	•
'Can I get your latest catalogue?'	
Their potential client asked	
My superior said, 'Don't work too much or you'll get ill.'	
My superior advised me	

## **SUMMARY**

In this unit we learned how to make a proper and polite business phone call and obtained some useful new vocabulary, especially polite phrases. We also revised Reported speech.

## **SHORT REVISION**

- 1. Can you answer a phone call (at your work) with Yes, Yeah, Tell me...?
- 2. Name some polite phrases that you use while making business phone calls.
- 3. Describe the steps towards a good phone call. Can you explain how we deal with the 'hold on' situation?

## 10 THE ENVIRONMENT AND ECOLOGY

After this unit you will be able to discuss the environmental problems, know more about the ecology and be able to describe and explain graphs.

Have you ever thought about some things that we should all do to protect our environment? Are you environmentally conscious and try to separate waste? Do you recycle? If you do, what is it? Do you walk to a shop nearby or do you always go by car?

How often do you have to draw charts or graphs? What for? Is that easy for you or do you have to put in a lot of effort?



Pictures 41, 42, 43: Recycling, taking care of our environment Sources: www.chelmsford.gov.uk, www.videogoogle.com, www.ehom.com

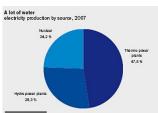
The rapid development of environmental science requires interdisciplinary research programmes encompassing ecology in the primary sense of this word, including environmental protection and physiological processes.

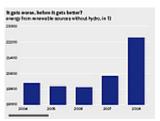
Metal recycling is the process of reusing old metal material, mainly aluminium and steel, to make new products. Recycling old metal products uses 95% less energy than manufacturing it from new materials. Aluminium is an ore, which is a mineral, and it usually exists by combining with oxygen. To make an aluminium product an electrical current is run through the metal and separates the oxygen from the aluminium. The aluminium is then melted and shaped into various products. Steel is created in a chemical reaction process located in a hot blast furnace. During this process the iron ore is freed from the oxygen and is then used to make steel. Both of these metal recycling processes consume millions of tons of energy. If we recycle metal products we only have to use 4% of this total energy, which can save our natural resources and reduce our greenhouse gas emissions.

Sustainable development is a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for future generations. The term is used as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development ties together concern for the carrying capacity of natural systems with the social challenges facing humanity. Ecologists have pointed to the "limits of growth" and presented the alternative of a "steady state economy" in order to address environmental concerns. The field of sustainable development can be conceptually broken into three constituent parts: environmental sustainability, economic sustainability and sociopolitical sustainability.

I. Have a look at the text below, read it, write down the words you might not understand, try to work out their meaning in groups and then do the exercise below:







# Looking for Green Shoots

Perhaps you have not noticed yet, but there has not been much talk lately of energy efficiency, climate change and environmental sustainability. As the economic crisis takes hold, these issues have receded into the background. The greening of products and services can still be a fairly expensive process; when focusing on cost-cutting, however, it is easy to lose sight of the fact that green can be cheaper in the long run.

Cars are a favourite pastime of Slovenes. However, not so long ago few bothered to consider how much greenhouse and other gases their autos emit into the atmosphere. This might soon change. Not only are governments implementing increasingly tougher standards on car emissions, the taxes on more-polluting vehicles might soon be considerably higher than on environmentally-friendly ones.

True, implementation of tougher emission standards is expensive for car makers, especially for those selling the heavy SUVs and other gas-guzzlers that have become a regular sight on Slovenian roads. However, this should be a boom to Slovenia's economy. Revoz, the country's largest exporter and a subsidiary of French car producer Renault, is the only factory in Europe making Renault's Clio II and Twingo models, renowned for their fuel-efficiency and low emissions. With heavier, more powerful vehicles becoming more expensive as a result of higher taxes and the costs of implementing tighter standards, the demand for cleaner, lighter cars is set to grow; Revoz has been one of the few firms in the country to hire, rather than lay off workers since the onset of the crisis.

### Alternative driving

Those car producers that do not have a strong foothold in the small cars market are, of course, fighting back. Hybrid vehicles, running on conventional fuels as well as electricity, are all the rage. Biofuels such as biodiesel and ethanol are being introduced as car fuels. This opens up numerous business opportunities for Slovenian companies, and not just those from the automotive sector. The port of Koper, Slovenia's only port, for example, has been touted as a possible regional entry point for Brazilian ethanol.

## Eco-certified

Experts emphasize, however, that the most efficient and the quickest way towards reducing Slovenia's carbon footprint is energy efficiency. Making renewable energy work is expensive; the investment needed to set up wind farms and solar farms is often prohibitive, especially when the prices of conventional sources of energy like oil and coal are low.

However, major energy savings can be realized by making household appliances more energy efficient. The burden on the environment can be reduced by making production processes

more sustainable. This is what Slovenia's second biggest exporter, Gorenje, a household appliances producer, has been doing.

# Tougher times

Looking ahead into the future, investment in clean technologies and processes will be even more of a competitive advantage for companies. The European Union's emission trading scheme in which companies buy the permits to emit CO2 into the atmosphere was not a success in the first years of its existence. The permits were given away at no charge and there were obviously too many of them on the market as their prices were dropping constantly.

The European Commission has therefore decided to clean up its act and to reduce the number of permits available. This makes the emissions more expensive; companies that emit less pay less. This is an important advantage in a time of crisis when firms increasingly compete on price.

(Source: Marko Vuković, The Slovenia Times, 2009, <u>www.sloveniatimes.com</u>)



## I. Words that are new to me are:

## II. Answer the following questions:

Why haven't the ecological issues been discussed lately? Because of recession and economical problems associated with it.

Are we, as a nation, aware of the damage that our cars cause to the environment? Are we 'car crazy'?

Is your car a 'gas-guzzler'?

What are some alternative fuels for future cars?

How can we save energy?

What has Gorenje been doing?

What do you have to do if you pollute the environment with CO2?

III. Read this advertisement about a device that provides sustainable energy and complete it with the missing expressions, choose between: farm, gallons, seeds, cooking, \$400, expensive, biodiesel, warehouse

Manual Oil Press -super discount sale! Only \$400



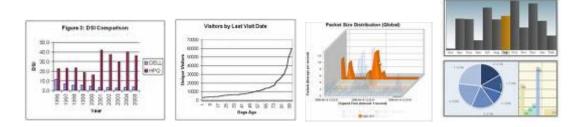
Squeeze oil out of \_\_\_\_\_ and nuts - even make your own \_\_\_\_\_. Processes up to 120 pounds per day - up to 4 \_\_\_\_\_ of \_\_\_ oil. Handy around the \_\_\_\_ or homestead, a life-changing innovation in developing countries where cooking oil is not available or extremely \_\_\_\_\_. We can ship now for a limited time at this fraction of our normal price because we're moving out of a \_\_\_\_\_.

(Source: www.thesustainablevillage.com)

### 10.1 GRAPHS

Graphs and charts can be used to illustrate many different data and are not limited to simple types only, such as line, bar or chart graphs. All of them, tables and graphs, plans or diagrams, are used to organise data more methodologically, are a visual presentation of two or more variables, each objective and initiative has a corresponding graph and report. Graphs provide a visual representation of the actual values recorded.

Below you can see some typical graphs.



Pictures 44, 45, 46, 47: Different types of graphs or charts Sources: www.jimnovo.com, www.javin.com, www.designerveb.com

Perform a class survey: how many students come to school by car, how many of them recycle, how many want to have more free time, how are they satisfied with the school facilities ... and show the results in the form of a chart or graph.

I. Draw the graphs that describe the information in the sentences below:

Oil prices skyrocketed last year.

The euro-dollar exchange fluctuates slightly all the time.

Exports to the countries of the former Soviet Union have stagnated over the past few years.

All stock-exchange indexes dived dramatically again yesterday.

People want to save money so demand for low-fair flights has increased dramatically over the past three years.

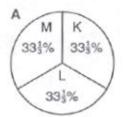
Their share prices rose slightly in the morning, fell several times during the day and again rose in the evening.

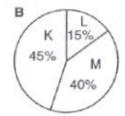
Their profits went down all through the year and bottomed down in November.

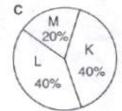
II. Have a look at the exercises below about the graphs, answer the questions:

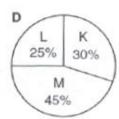
### English for Mechanical Engineering

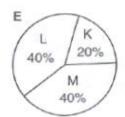
- Look at the charts below. They show the sales figures of three furniture companies, K, L and M, for eight different products A-H.
- Which chart does each sentence 11-15 describe?
- For each sentence, mark one letter A-H.
- Do not use any letter more than once.

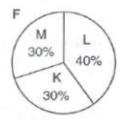


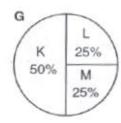


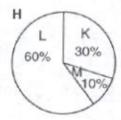






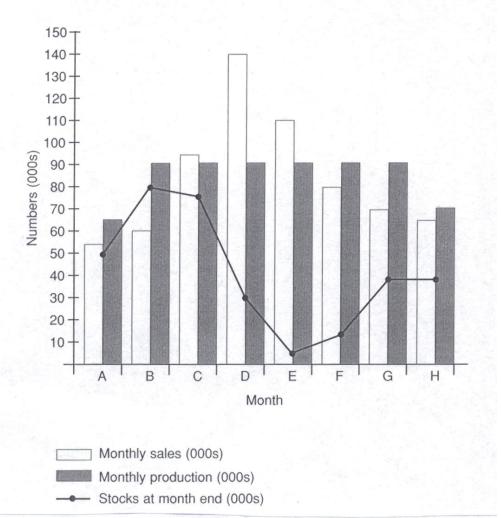






- 11 Sales of this product were higher at M than at K or L.
- 12 L has more than half of the market for this product.
- 13 All three companies have an equal share of the market for this product.
- 14 K's sales of this product have not been as high as those of the other two companies.
- 15 K has done as well with this product as the other two companies together.

- Look at the chart below. It shows the sales, production and stock levels of a computer manufacturing company over an eight-month period.
- Which month does each sentence (11 15) describe?
- For each sentence, mark one letter (A H)
- Do not use any letter more than once.



- 11 In this month, production reached a higher level than sales for the first time since the peak selling period.
- Sales and production both fell in this month, while stock levels were unchanged from the previous month.
- 13 In this month, sales reached a new high, leading to stocks dropping sharply by the end of the month.
- 14 Production was raised to its maximum capacity in this month to meet an expected increase in demand.
- As a result of continuing high sales figures, this month saw a further reduction in stocks before the company began to build them up again.

Source: www.bbc.com.uk

## 10.2 CONDITIONALS

We use conditionals all the time as we want to express something what is always true, what will probably happen in the future, what is very unlikely to happen in the present and also when we wish we could change the past. According to this we divide them into zero degree conditionals (Whenever I have time, I go out with my friends. The raw egg breaks if you drop it.), first degree conditionals – real possibilities (If the weather is fine tomorrow, I'll go for a walk. We'll be late unless you hurry. She'll pass the exam when she studies more. As soon as he knows something, he'll let me know.), second degree conditionals – unreal possibilities in the present or future (If I had money, I would buy a new car. She would be afraid if she got lost. She could travel on business if her knowledge of languages was better.), and third degree conditionals – unreal or imaginary situations in the past (If they had known about their problems, they would have helped them. That wouldn't have happened if someone had warned us. Someone could have been hurt if we hadn't been careful enough.).

	MILE	73.	
d	2	2	1
и	1	10	K

## I. Complete the following conditionals:

If she has some free time this weekend, she will go to the mountains.

My friend would travel to Australia if \_\_\_\_\_\_

They would have sold their shares if	
As soon as they have the right figures, _	
If there was an interesting job opening,	·
He'd be extremely upset	·
Would you mind	?
When they return from the holidays,	·
If their product wasn't so expensive,	<u>.</u>
If you mix these flammable components	5,
If he worked harder,	<del>.</del>
If they had tested the prototype once again	ain,
They have meetings when	
If I could live somewhere else,	
If I had applied for that job abroad,	
Oil boils over if	·
Oil boils over if We would have bought that new machine	ne if
II. Match the parts of the sentences to make	te correct conditionals:
1 If Jack enters the competition,	A) it wouldn't have been stolen.
2 She will not go to work	B) if he hadn't been late.
3 If he had taken the map,	C) you will manage to do everything in time.
4 If he had locked his new car,	D) if she doesn't feel better.
5 I would buy that beautiful painting	E) he'll definitely win and get the first prize.
6 He wouldn't have missed the meeting	F) if I had more money.
7 If you post the invitations today,	G) if you finished your report.
8 We could start the meeting	H) they will arrive tomorrow.
9 If you start now,	I) he wouldn't have got lost.
1 E 2 3	5
6 7 8	9

# III. Rewrite the following sentences in the form of conditionals:

She isn't at the annual meeting because she wasn't informed about it.
If she was informed about the annual conference, she would be there.
If he doesn't pay the fine, he may go to prison.
Unless
I didn't apply for that job as I don't want to work there.
If
You can take photos here if you don't use the flash.
Unless
I don't know her very well, so I didn't talk to her.
If
It rained heavily so we didn't see much of the city.
If
I learnt about this programme because you helped me.
If
You feel so tired because you work too much.
If
She's too nervous. Her presentations are usually boring.
If

### **SUMMARY**

In this unit we learned about taking care of the environment, recycling, sustainability and graphs. We also revised conditionals.

## **SHORT REVISION**

- 1. Describe some ways of taking care of our environment.
- 2. Analyse different methods of recycling check your waste at home and decide what could be better used as a sustainable resource.
- 3. What do we use graphs, tables, charts or diagrams for?

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English for Mechanical Engineering

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# Projekt Impletum

Uvajanje novih izobraževalnih programov na področju višjega strokovnega izobraževanja v obdobju 2008–11

Konzorcijski partnerji:



Operacijo delno financira Evropska unija iz Evropskega socialnega sklada ter Ministrstvo RS za šolstvo in šport. Operacija se izvaja v okviru Operativnega programa razvoja človeških virov za obdobje 2007–2013, razvojne prioritete Razvoj človeških virov in vseživljenjskega učenja in prednostne usmeritve Izboljšanje kakovosti in učinkovitosti sistemov izobraževanja in usposabljanja.