



## Unit 1: Teamwork

- Talk about roles and responsibilities
- Explain how an organization works

### Roles and responsibilities

### Roles and responsibilities

Match these descriptions with the people in the illustration

1. I'm \_\_\_\_\_. I work for a concrete supplier. We deliver concrete to construction sites all over the country.
2. I'm \_\_\_\_\_. This is my apprentice.
3. I'm \_\_\_\_\_. Today I'm painting a steel staircase.
4. I'm \_\_\_\_\_. I control access to the site. I'm responsible to the site manager.
5. I'm \_\_\_\_\_. My company is responsible for the whole project.
6. We're \_\_\_\_\_. We're visiting the site to ask some questions.

Site manager	Driver	Electrician
Security guard	Reporters	Painter

### Roles and responsibilities

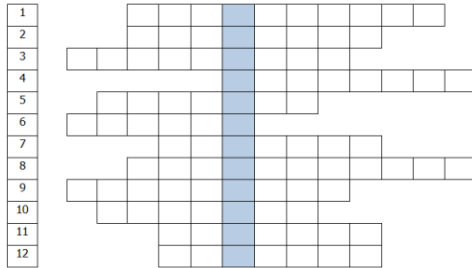
 <b>Site manager</b>	 <b>Painter</b>	 <b>Security Guard</b>
 <b>Electrician</b>	 <b>Plumber</b>	 <b>Welder</b>

### Roles and responsibilities

 <b>Glazier</b>	 <b>Architect</b>	 <b>Carpenter</b>
 <b>Bricklayer</b>	 <b>Surveyor</b>	 <b>Equipment operator</b>

### Roles and responsibilities

Complete this table and find out the key word:



### Roles and responsibilities

1. We build walls, buildings, etc with bricks
2. We visit the site to ask some questions
3. We make and repair wooden objects
4. We control access to the site
5. We paint houses or other buildings
6. We weld metal in a factory
7. We repair pipes, baths, toilets etc
8. We connect or repair electrical wires or equipment
9. We design buildings
10. We fit glass into window frames
11. a carefully planned work to build or improve something
12. I'm responsible for managing all works on the site

### SPEAKING

Work in pairs. Explain what your jobs is and what you do. Example like this:

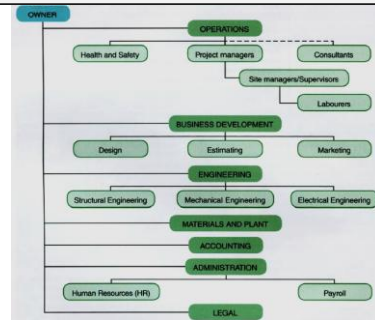
*I'm a ...*

*I work for ...*

*My company ...*

*I'm responsible for ...*

### Structure of an organization



### Structure of an organization

departments divided external has look part report section top

- 1 Our company has a simple structure. At the \_\_\_\_\_ is Kasper Karp, the owner.
- 2 There are seven \_\_\_\_\_. The department heads report to the owner.
- 3 Operations consists of a Health and Safety \_\_\_\_\_ and all the project managers.
- 4 The site managers and supervisors \_\_\_\_\_ directly to a project manager.
- 5 Business Development is \_\_\_\_\_ into three sections: Design, Estimating and Marketing.
- 6 Engineering also \_\_\_\_\_ three sections: Structural, Mechanical and Electrical.
- 7 There are different departments which \_\_\_\_\_ after materials and plant, accounting, administration and legal.
- 8 Sometimes we have \_\_\_\_\_ consultants to help with special jobs. They are not \_\_\_\_\_ of the company.

### Structure of an organization

Listen to the heads of the seven departments talking about their roles. Write the names of their departments. Use the organization above to help you.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

### Structure of an organization

#### 1. Support (n) help

Fleet (n) a group of vehicles that are controlled by one company

Liaise (v) exchange information with another organization

#### 2. Claim (n) official request for money

#### 3. Phase (n) one of the stages of a process

#### 4. Income >> outgoings

#### 7. Recruit (v) find new people to do a job

Expense (n) money that spend on something

Wage (n) ≠ Salary (n) money you receive for your work

### LISTENING

- M: So ... how can I help you?
- S: Well, we'd like some \_\_\_\_\_(1) information about the project.
- M: OK, I can ask my \_\_\_\_\_(2) to send you some details. We sent out a press release a couple of weeks ago.
- S: Yes, we have a copy of that, thank you. We're interested in finding out more information about the people working here. How many \_\_\_\_\_(3) do you have on site? What do they do? Where are they from? Are they all local people?
- M: Oh, that depends on what's happening. As you can imagine, this is quite a \_\_\_\_\_(4) business, so we have different \_\_\_\_\_(5) and \_\_\_\_\_(6) coming in and out all the time.
- S: OK.

### LISTENING

- M: But, to answer your question, I'd say we usually have about 100 people on site. And they're mostly from this area.
- A: And you're in charge of the site?
- M: Well, yes, my company - actually, my father's company - is the \_\_\_\_\_(7) for the project. We co-ordinate all the subcontractors and make sure things stay on schedule and stay within budget. I report to the \_\_\_\_\_(8), Sabina Tom.
- A: I see. And your father is Kasper Karp?
- M: Yes, that's right. Sometimes, on bigger projects, we work in a consortium with other \_\_\_\_\_(9) and \_\_\_\_\_(10).

### LISTENING

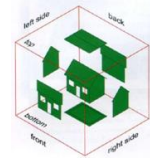
- S: Could you tell us something about...?
- M: Excuse me, I've just seen Mr Lang. He's walking through the gate. He represents the \_\_\_\_\_(11), and I have a meeting with him and Anna Black in a few minutes' time ...
- S: Anna Black?
- M: Anna works for the \_\_\_\_\_(12), DKI Cement. They're supplying all the cement for the project. Just a moment, please. My assistant, Robert Lane, will answer any further questions you have.
- S and A: Thank you.

## Unit 2: Design

- Describe technical drawings
- Estimate



### TECHNICAL DRAWING



Orthographic projection



Perspective projection



Plan view



Elevation



Cross section



Exploded view

TECHNICAL DRAWING

Complete this text with the words above:

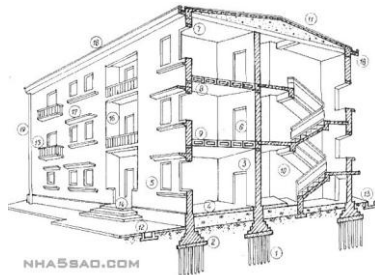
There are many ways of putting a 3D object into 2D. \_\_\_\_\_ can be found on all construction projects. These drawings show different views of the object, and can include \_\_\_\_\_ (a view from one side) and \_\_\_\_\_ (the view when you cut through an object). Another type of drawing shows \_\_\_\_\_, which are very useful for understanding the assembly of an object, in other words how it all fits together. A third type of drawing is \_\_\_\_\_, which allows us to see an object from above. A typical example of this is a floor plan. These are very useful when we want to look at the fittings in detail, in other words where objects like cookers and baths go.

TECHNICAL DRAWING

Words	Meanings
1. Elevation	a. A 2D representation of a 3D object
2. Beam	b. The view from one side
3. Roof	c. The view when you cut through an object
4. Projection	d. The view from above
5. Girder	e. A long heavy piece of wood or metal used in houses, bridges, etc
6. Column	f. Strong beam, made of iron or steel
7. Frame	g. A frame supporting a roof or bridge
8. Plan view	h. Structural element that transmits, through compression, the weight of the structure above to other structural elements below
9. Truss	i. An upright flat structure made of stone or brick, that divides or surrounds an area
10. Section	j. The main supporting parts of houses, bridges, etc
11. Wall	k. The structure that covers the top of a building

TECHNICAL DRAWING

Look at the picture and name the elements numbered:



ESTIMATE

Complete this table about some shapes:

1. _____		a triangle	a(n) <sup>2</sup> _____ truss
3. _____		an I-shape	a(n) <sup>4</sup> _____ girder
5. _____		a circle	a circular rod
6. _____		a square	a(n) <sup>7</sup> _____ beam
8. _____		a cylinder	a cylindrical can
9. _____		a(n) <sup>10</sup> _____	a spherical damper
11. _____		a rectangle	a(n) <sup>12</sup> _____ room

ESTIMATE

WRITING	SAYING
2,000 m	
0,03 cm	
1,34 m	
3m x 4 m	
25 m <sup>2</sup>	
600 m <sup>3</sup>	
200 ± 1 mm	
1:100	
20 x 30 = 600	
12/5	
$\pi r^2$	
$2\pi r$	
$\sqrt{64} = 8$	

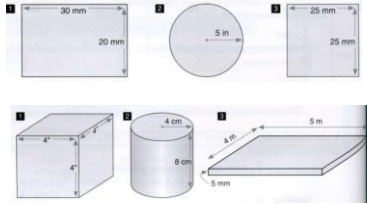
ESTIMATE

Say these dimensions and calculations:

1 3.065 mm	5 2,500 sq ft
2 3'4"	6 4,632 m <sup>2</sup>
3 34 m x 28 m	7 0.045 cm
4 26' ± ½"	
1 5 × 6 = 30	4 5 + 3 - 1 = 7
2 100 / 5 = 20	5 7 <sup>2</sup> = 7 × 7 = 49
3 $\sqrt{36} = 6$	

ESTIMATE

Calculate the areas and volumes



READING

Read text and answer some questions

1. What are the structural elements of building?
2. What may columns and beams are constructed of?
3. Where may pre-cast units be prefabricated?
4. Which units may be precast?
5. What does a bearing wall and curtain wall do?

LISTENING

Listen to an architect describing the house. Write the dimensions you hear.

1. total area \_\_\_\_\_.
2. main room, with the kitchen \_\_\_\_\_.
3. bedroom \_\_\_\_\_.
4. bathroom \_\_\_\_\_.
5. height of rooms \_\_\_\_\_.
6. doors, not including frames \_\_\_\_\_.

LISTENING

Listen and complete a conversation

- Modifications
- Aquarium
- Partition
- Insulation
- Environmentally
- Energy efficient

Unit 3: Equipment

- Talk about equipment: descriptions and usages



29

EQUIPMENT

Name some equipments and tools in construction site below:



### Talking about equipment

Work in pairs to talk about description, usage of some equipments like that:

1) What does a bulldozer do?

It can \_\_\_\_\_.

It's for \_\_\_\_\_.

It's used for \_\_\_\_\_.

2) What do you use jackhammer for?

I use it for \_\_\_\_\_.

### Mixing concrete

Some equipments and tools in mixing concrete



### Mixing concrete

Read this text about mixing concrete and choose True (T) or False (F):

1. Concrete mixers mix and pour concrete.
2. For small quantities of concrete, transport trucks are ideal.
3. Portable mixers use electricity.
4. Cranes lift hoppers full of chute men to the job site.
5. In- transit mixers rotate during transport.

Concrete mixers mix and pour concrete. For small quantities of concrete, hand mixers are ideal. The portable mixer has wheels and uses electricity. It has a small drum which rotates. Concrete transport trucks – or in-transit mixers – transport large quantities of concrete to the site. The drum rotates during transport. The chute man pours the concrete down the chute, or uses a pump to get the concrete to difficult locations. Sometimes a crane lifts a hopper full of concrete to the job site.

### Talking about equipment

Listen and complete the descriptions of construction site equipment. Put one word in each gap and name those machines.

1. This machine is \_\_\_\_\_ driving piles into the soil.
2. This machine has a bucket which is used \_\_\_\_\_ scoop soil out of the ground.
3. This machine \_\_\_\_\_ lift heavy loads high in the air.
4. You \_\_\_\_\_ this machine to move large amounts of earth/
5. This machine \_\_\_\_\_ electricity from petrol.
6. This machine \_\_\_\_\_ used for transporting concrete to high parts of a construction site.
7. This machine is \_\_\_\_\_ transport people to high parts of a construction site.

## Unit 4: Materials

- Order materials
- Describe properties of materials



### Properties and Usages



**Order materials**

**Listen a conversation and complete it:**

A: Hello?  
 B: Just one moment, please. Sorry about that. OK, go \_\_\_\_\_(1).  
 A: Ah good. Thank you. My name 's Lopez. Who am I \_\_\_\_\_(2) to, please?  
 B: Christina Dudek. How can I help you?  
 A: I'm calling about a problem with an \_\_\_\_\_(3). We ordered some \_\_\_\_\_(4).  
 B: Hasn't it \_\_\_\_\_(5)?  
 A: Yes, yes, it's here. That's not the problem.  
 B: Is it the \_\_\_\_\_(6) sand?  
 A: No, it's the right sand. But it's the wrong \_\_\_\_\_(7).  
 B: What do you mean?  
 A: Well, we ordered three 10 kg bags. And we received three \_\_\_\_\_(8).  
 B: So are you saying that we sent you three truckloads?  
 A: Yes, that's right. No, wait.. Now we have six truckloads! Three more have just arrived..  
 B: Where is the sand now?  
 A: In our car park. Our security guard didn't check the \_\_\_\_\_(9)- be just \_\_\_\_\_(10) for it.  
 A: Oh, no.

**Order materials**

**Listen a conversation and correct 4 mistakes**

Caller:	Abdulla	Goods arrived:	9:00
Company:	Kawasoki Construction	Goods signed for by:	Malik Zahid
Order number:	G2356-J	Delivery address:	12 Bridge Road
Goods dispatched	10:05		

**Order materials**

**Work in pairs. Practice a telephone conversation between a supplier and a buyer. Using some phrases in the box**

*Example:*

1) A: I'd like to place an order. We need thirty bags of cement.  
 B: Certainly. What's your customer number? Do you have transport?  
 A: No, I'm sorry. I don't.  
 B: No problem. We organize delivery. Where is the site?

2) A: I want to order some timber.  
 B: I'm sorry. We're out of stock.

1	In stock/ out of stock
2	Customer number/ order number
3	Delivery/ pick up
4	Place an order/ change an order
5	Type of goods/ quantity

**Order materials**

**Work in pairs. Practice a conversation about problems in ordering materials**

- Quantity of goods
- Delivery address
- Cost- Payment

**Reading**

**Read the text in page 22 and answer these questions**

- What kinds of raw materials can be used to make concrete?
- What are advantages of concrete?
- In what case can concrete crack and how to solve that?
- How to make concrete more effective?
- How many ways are applied for making concrete? What are they?

**Reading**

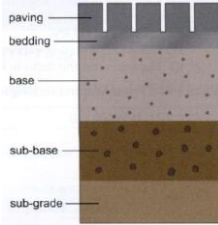
**Complete this text about Bahrain International Circuit with the figures in the box**

40,509 m<sup>2</sup> 400,000 litres 600 70,000 m<sup>3</sup> 8.500 tonnes

The construction of the circuit was carried out in record time for such a huge project. It was completed in just 485 days – from concept to race. It required 8,265,000 man hours, 2,084 workers, (1) \_\_\_\_\_ of sweet water, 300,000 hollow blocks, 190,810 m<sup>3</sup> paving bricks, 820,000 m<sup>3</sup> rock removing, 300,000 m<sup>3</sup> asphalt, (2) \_\_\_\_\_ concrete, 1,000 tonnes aluminium, (3) \_\_\_\_\_ steel, 7,750 m<sup>2</sup> glass, 30,000 m electric wiring, 70,000 timing circuitry, 78,919 m<sup>2</sup> paint, (4) \_\_\_\_\_ plaster, 10,800 m<sup>2</sup> roofing membrane and finally (5) \_\_\_\_\_ palm trees.

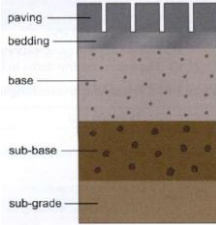
Listening 1

There are basically two types of driveway. You can have a firm surface, like stones or \_\_\_\_\_ or asphalt, and you can have a loose surface of aggregate, like gravel or crushed stone. Each type needs layers of different \_\_\_\_\_ underneath the surface layer, and the materials you use for these layers have different \_\_\_\_\_. So, for example, if you want paving stones, you need a bedding layer underneath, which is normally coarse sand or grit. If the sand is too fine, the bedding \_\_\_\_\_ will be too soft.



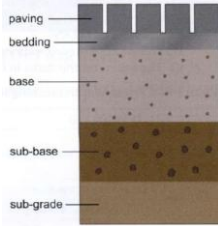
Listening 1

Under that you may have a base layer, and underneath that you may have another layer, called a \_\_\_\_\_. This sub-base needs to be strong enough to take the weight of vehicles, like family cars. If this sub-base is too \_\_\_\_\_, the driveway will subside, or sink. These two layers will be aggregates of different sizes. The larger aggregates are at the bottom. The sub-base sits on the \_\_\_\_\_, in other words on the existing ground. On the outside you have edgings.



Listening 1

The edgings are often stone or concrete. Some edgings, like in children's playgrounds, can be elastic. On driveways, the edgings need to be \_\_\_\_\_ enough to hold the paving together. And they need to be tough. Brittle edgings are no good - they break or chip easily. Edgings also need to look attractive. So it's important to think about things like \_\_\_\_\_ and finish, otherwise the finished driveway may look unattractive. You also need to take \_\_\_\_\_ into account. Will the texture be rough or smooth? And then you could also ...



Listening 2

When you put down asphalt, you have to think about its properties. The first is the pen value, or penetration value, which tells you how hard or \_\_\_\_\_ the asphalt is. The pen value depends on the \_\_\_\_\_ and the local temperatures. If the asphalt is too hard, it will crack. If it's too soft, it will distort, or change \_\_\_\_\_. The second \_\_\_\_\_ is cutback, which has to do with how fast the asphalt cures, in other words, how quickly it reaches maximum \_\_\_\_\_ and hardness. Again, this will change depending on local \_\_\_\_\_. Another property is porosity, or how much water the asphalt lets through.

Listening 2

And then there's noise reduction and reflection. Both of these are \_\_\_\_\_ on motorways, but not so \_\_\_\_\_ on driveways. Motorways need to be as quiet as possible, particularly in built-up areas. And they mustn't produce glare which can affect a driver's eyes. The dark surface of the asphalt absorbs light and reduces \_\_\_\_\_. With an asphalt surface you don't have a bedding layer, but you do have a binding layer, which holds everything together.

Unit 5: Processes

- Talk about Recruiting process
- Explain how a construction process go





## Process

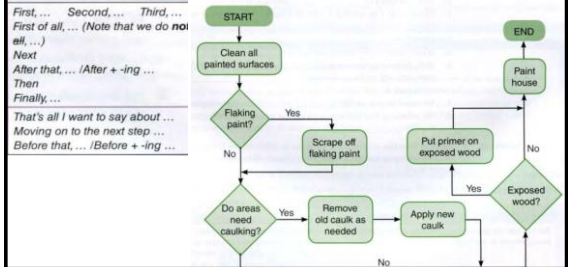
Complete this text with the words in the box.

Finally | First | result | routine | stages | Third

We do this every day: it's ( 1 ) \_\_\_\_\_. The procedure is simple. There are only seven (2) \_\_\_\_\_ and the (3) \_\_\_\_\_ is always the same. (4) \_\_\_\_\_, you smile at the guard and say 'Good morning'. Second, the guard smiles back and says 'Good morning'. (5) \_\_\_\_\_, the guard asks you for your ID. After showing him your ID, the guard smiles and says 'Thank you'. Then you also smile and say 'Thank you'. (6) \_\_\_\_\_, you enter the site.

## Speaking

Work in pairs, use sequencing markers to explain the process of painting a house



## Reading

This is what we used to do. Everyday we got hundreds of invoices from different suppliers. These went straight to the accounts department. Let's imagine that the invoice was for some materials, say, a load of sand. The first thing they did was match the invoice with the purchase order (to check that we had ordered the sand) and the delivery note (to check that the sand had been received). If the documents did not match, the invoice was sent back to the supplier. If they did match, **the accounts department sent the invoice, together with the purchase order and the delivery note, to the project manager for approval.** Once the invoice was approved, the accounts department entered the details into the books and filled the invoices in the accounts payable file. The payment was then dealt with, normally by bank transfer, within 30 days of receipt of the invoice. The invoices then went into the paid invoices file. These files were kept for ten years.

## Recruiting process

- A: HR. Susanne Kohl speaking.
- B: Hi, Susanne. It's Peter. How's it going?
- A: \_\_\_\_\_, \_\_\_\_\_. Busy as ever.
- B: You left me a message to call you ...
- A: Ah, yes. Have you heard the news about Sally?
- B: What news?
- A: \_\_\_\_\_'s pregnant.
- B: So?
- A: So you'll need a new structural \_\_\_\_\_ for your team.

- B: Ah, yes, of course. When is she planning to leave?
- A: She said mid-July.
- B: OK. Is she coming back \_\_\_\_\_ she has the baby?
- A: She'll decide later on. But she may take a couple of years off.
- B: We'd better think \_\_\_\_\_ finding a replacement then. We can't cover for that long.
- A: Yes. And even if she does come back, we \_\_\_\_\_ extra people in the team, anyway. There's a lot to do.
- B: OK, so what's the procedure?
- A: Well, first of all you need to identify the key skills you \_\_\_\_\_ her replacement to have. And then we need to \_\_\_\_\_, or probably just \_\_\_\_\_, the job description.

- B: OK, that's easy enough.
- A: Then we need to \_\_\_\_\_, first internally, then externally.
- B: OK.
- A: Then it's a matter of looking at \_\_\_\_\_'s CVs, producing a shortlist and carrying out the \_\_\_\_\_.
- B: That's it?
- A: Well, we'll also need to check references before we make our final decision. And then we inform the successful applicant and organise the induction.
- B: OK. Look. Why don't we meet next \_\_\_\_\_ to talk about the key skills you mentioned?
- A: Just a second. Let me check my diary. Yes, OK, that sounds good. \_\_\_\_\_ o'clock?
- B: \_\_\_\_\_. See you then.

### Homework

Write a cover letter to apply for  
A contest | A job

### Making sentences

recruit (v)	to find new people to work in a company
advertise (v)	to make an announcement, e.g. in a newspaper, that a job is available
interview (n)	a formal meeting at which someone is asked questions in order to find out whether they are suitable for a job
reference (n)	a person who provides information about your character and abilities
identify (v)	to recognise and correctly name something
skill (n)	an ability to do something well
applicant (n)	someone who has formally asked for a job
prepare (v)	to make plans or arrangements for something that will happen in the future
update (n)	the most recent information about something
shortlist (n)	the final few applicants for a job, normally invited for a second interview

### Unit 6: Projects

- Kick-off meetings
- Contracts



57

### Vocabulary

1 Have you seen the first draft of the <b>project plan</b> ?	a) Land, building, equipment,...
2 The project manager clarified the <b>scope</b> of the project at the <b>meeting</b> .	b) Document summarising all aspects of the project
3 The new <b>WBS</b> software is saving us a lot of time.	c) Components
4 Rashid will be in charge of co-ordinating <b>resources</b> for the project.	d) Without planning
5 The accountants are not happy with the <b>budget</b> .	e) Official agreement
6 The room for the <b>kick-off meeting</b> has been changed. It's now in Room 2E.	f) The work that needs to be done
7 The WBS splits the work into smaller <b>elements</b> .	g) People, materials and other assets available for the project
7 Three firms <b>bid</b> for the contract on the new buildings.	h) Work Breakdown Structure
8 Please check the <b>invoice</b> No10345 for me.	i) Cost breakdown
9 The chairman has summoned an <b>impromptu</b> meeting.	j) Offer to pay a particular price
10 There is a <b>strike</b> on this company	k) List of goods have been supplied
11 The value of this company's <b>asset</b> is about \$16 billion.	l) First meeting
12 The <b>contract</b> was fixed to a contractor from New York	m) Not working

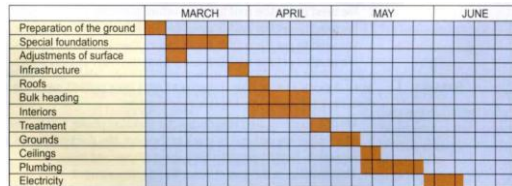
### Gant Chart

Read the text and complete this schedule

	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Design																	
Site preparations																	
Foundations																	
Pier construction																	
Superstructure																	
Deck																	
Opening ceremony																	

### Gant Chart

Describe this Gant chart:



### Reading 1

Read the text and answer these questions:













1. What types of meeting is it?
2. What is the problem?
3. What are the reasons she give for the problem?
4. Who has she spoken to about the problem?
5. How is she planning to solve the problem?

### Unit 7: Documentation

- Explain document control procedures
- Give specific information about documents



### Types of Document

 <b>Contract</b>	 <b>Drawing</b>	 <b>Order</b>	 <b>Invoice</b>
 <b>Schedule</b>	 <b>Procedure</b>	 <b>Memo</b>	 <b>Agenda</b>
 <b>Manual</b>	 <b>Presentation</b>	 <b>Report</b>	 <b>RFI</b>

### Speaking

Work in pairs. Follow the example conversation below, using some words from the box:

- A: I need a copy of the contract
- B: Which contract?
- A: The contract which we signed last week.
- B: We signed two contracts last week.

agenda change order contract drawing email floor plan manual minutes permit presentation procedure report RFI log schedule

amended archived backed up destroyed redrafted revised signed wrote

### Documentation control

Complete this document control procedure with the words in the box:

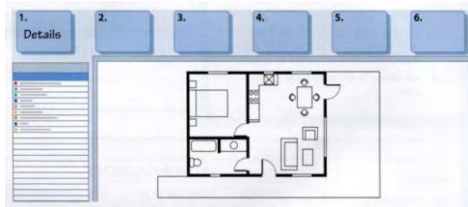
amended archived books out figures log number scan track version

When a document comes in, we first make a handwritten note in the (1) \_\_\_\_\_. If necessary, we give it a serial (2) \_\_\_\_\_. We then (3) \_\_\_\_\_ it in, so that we have a permanent electronic record. As you can see, the serial number ends with a slash and then another number, always three (4) \_\_\_\_\_. So, 001 is the first (5) \_\_\_\_\_ of the document. If the document is (6) \_\_\_\_\_

or updated in any way, it receives a new version number and so on. We also use the log to (7) \_\_\_\_\_ the movement of the document. If someone (8) \_\_\_\_\_ the document, the date and time are recorded here and when it comes back in, the date and time are recorded again. At the end of the project, the document is either destroyed or (9) \_\_\_\_\_, depending on its importance.

### Listening 1

Listen to a conversation about a document management system. Label the buttons on the screenshot.



**Confidentiality level - Document output - Originator**  
**Status - Document history**

**Listening 1**

A: First you have to type in a password. OK, good, so this is a typical document. You can see the first button on the top left says **Details**. That's the document serial number and document type - a drawing, a memo, an agenda or whatever. And the next button is the **Status**. If you click on Status, you get two options - draft or final.

B: Yes. OK.

A: And next to it is the **Confidentiality level button**. We have three levels: *restricted* documents can only be seen by certain people, *internal* documents are for our use only and *open* documents, which anyone can see.

B: Uh-huh, all right.

**Listening 1**

A: Moving across, you can see the **Originator button**, which is normally someone's name - but it could also be a department - and their contact telephone number and email address. Then there's the **Document history button**, which is a list of the different versions of the documents, together with dates and the people involved.


B: OK.

A: And if you click this button, you get the **Document output menu**. We can set different possibilities, for example, 'only allow online viewing', or 'transfer files', or 'print'. And for special documents, like big drawings, we can click here and that sends the drawings straight to the printer.

B: I see.

**Listening 2**

Listen and complete this conversation about the bid:




**Unit 8: Health and safety**

- Explain injuries
- Identify warning signs



**First aid**



**First aid**

Work in pairs and take turns. Choose one of the injuries in 1. Tell your partner about the injury and explain how it happened. Your partner explains what to do using the phrases in the box.

call an ambulance   get the first aid kit   go to hospital   see the doctor  
take an X-ray

A: I cut my finger on some broken glass.  
B: OK. I need to get the first aid kit. First, I need to clean the cut ....

### First aid

Listen to six conversations about injuries on site and match 1-6 to a-f

1 He sprained	a) his arm.
2 He broke	b) his back.
3 He burnt	c) her finger.
4 He hurt	d) his hand.
5 She cut	e) his ankle.
6 The pallet crushed	f) his knee.

73

### First aid

74

### Warning signs

Look at these signs. What do they mean? Complete the sentences for signs 1-6 with the words in the box

a harness a mask ear protection gloves  
protective clothing safety glasses

1 You must wear \_\_\_\_\_. 4 You must wear \_\_\_\_\_.  
2 You must wear \_\_\_\_\_. 5 You must wear \_\_\_\_\_.  
3 You must wear \_\_\_\_\_. 6 You must wear \_\_\_\_\_.

75

### Warning signs

76

### Warning signs

Read these sentences. What sign is needed? Look at the signs in 2 and write the sign letter for 1-8.

- There are men working on the roof today. \_\_\_\_\_
- The new security company uses dogs. \_\_\_\_\_
- There are power cables near the fence. \_\_\_\_\_
- There's a lot of debris on the ground. \_\_\_\_\_
- We're erecting the scaffolding this afternoon. \_\_\_\_\_
- We're using the crane today. \_\_\_\_\_
- We're moving the timber today. \_\_\_\_\_
- There's oil on the ground. \_\_\_\_\_

77

### Warning signs

- Use clues 1-9 to fill in the squares. What health and safety advice do you read in the column?

**Clues:**

- overhead \_\_\_\_\_
- \_\_\_\_\_ surface
- falling \_\_\_\_\_
- suspended \_\_\_\_\_
- \_\_\_\_\_ hazard
- stand \_\_\_\_\_
- \_\_\_\_\_ lift truck
- \_\_\_\_\_ dog
- safety \_\_\_\_\_

78

Site safety

- Look at this illustration. Circle the health and safety problems you see.

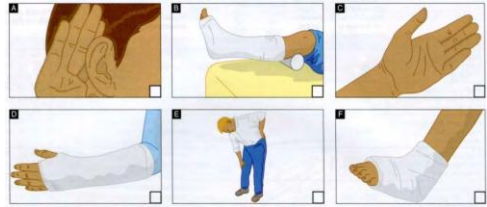


Boots  
Children  
Fall  
Helmet  
Ladder  
Mask  
Oil  
Skip  
Trip  
Welding

79

Listening

Listen to 6 conversations about accidents. Match these illustrations with the conversations and complete them.



80