

**English for Civil Engineering
Student's book**

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English for Civil Engineering Student's book



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INTRODUCTION

So far I've learnt that an interactive teaching/ learning activity that will value my students' interventions should focus on creating a scientific context that would stimulate the debates within my ESP seminars and lectures.

One of the aims of these projects has been to develop materials both for testing the second language competence of civil engineers and for teaching them the language that they require for their professional certification. I do not assume that my users will have an in-depth knowledge of civil engineering matters. Therefore, the units have been devised to help students improve their knowledge and use of English in an engineering environment. Each unit covers vocabulary related to a certain topic area-ranging from basic civil engineering vocabulary to harbours, bridges, types of foundations and so on- and is designed to reinforce the grammar knowledge of students and improve their communicative skills.

I come to realize that the more realistic situations and contexts I'll be using, the more realistic my teaching materials and methods will become. My lectures are addressed to pre-intermediate and intermediate students that already have a basic knowledge of English grammar and, therefore, they are thematically-centered on developing the reading, writing, speaking and listening abilities that they need to communicate in their studying field. In other words, the lectures aim to help them:

- Increase their knowledge of technical English.
- Discuss familiar things, key engineering concepts and principles.
- Communicate with fellow students and engineers in other countries.
- And, nevertheless, become more fluent and accurate in a wide range of technical fields.

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HOUSES OF TRIBAL/ ANCIENT SOCIETIES VS 20th CENTURY HOUSES

Warming up/pre-reading activities: (5 minutes)

Task 1

Look at the pictures below and list as many building materials as possible.



Task 2

Imagine you are living in the Ancient times. Try to describe your house.

Task 3

How do you think the Romanians lived in the ancient /old times?

Read the text below and complete the following tasks. (15 minutes)

In tribal societies the house tends to be a single volume, a room for all activities. It is usually built directly against neighbouring structures and is often close to the tribal meetinghouse or religious structure as well. The shape of such a house may be repeated through an entire village, creating fascinating patterns. (1...)

Building materials are those at hand. ‘If mud and *clay* are available, they are used to fill the spaces between pieces of wood or are made into bricks (usually sun-dried). Even huge reeds are used in the construction of *dwelling*s, as by the marsh Arabs of southern Iraq. In rainy areas most tribal houses have interior *hearths*.

In ancient Egypt ordinary people dwelt in plain, mud-brick houses of rectangular plan. (2...); the foremen had bigger houses.

Throughout the Middle East much depended on the materials available. Where clay was found, beehive-shaped, single-room structures were common. Where stone but no *timber* was available, even the roofs were made of long strips of stone. These traditions continued well into modern times. Most people in ancient Egypt lived in mud-brick houses. The activities of everyday life occurred in and around the houses.

By the 1920s modern architecture, though by no means universally accepted, had arrived. Glass, steel, and *concrete reinforced* with *steel* gave architects many new design options, and by the mid-20th century the modern house was commonplace. Glass boxes, freely curving styles, and stark, austere geometric forms were all possible; but at the same time traditional styles persisted, and in the U.S. many homeowners found a more or less standard, one-floor, two- or three-bedroom ranch house satisfactory.

Modern architecture also challenged traditional ideas about the types of structures suitable for architectural design. (3...) They began to plan low-cost housing, railroad stations, factories, warehouses, and commercial spaces. In the first half of the 20th century many modernists produced housing as well as furniture, textiles, and wallpaper to create a totally designed domestic environment.

Developments in two materials—iron and concrete—formed the technological basis for much modern architecture. In 1779 English architect Thomas Pritchard designed the first structure built entirely of cast iron: Iron bridge, a bridge over the River Severn in England. At around the same time, another Englishman experimented with a compound of *lime*, clay, sand, and iron *slag* to produce concrete. (4....) Builders throughout Europe and North America began to erect warehouses with *beams* of iron instead of wood and to create storefronts with cast-iron facades.

1. Four sentences have been removed from the text. Select the appropriate sentence for each gap in the text. There is one extra sentence which you do not need to use.

- a) Iron had been used since antiquity to tie building elements together, but after the creation of Iron bridge it look on a new role as a primary structural material.
- b) Important civic buildings, aristocratic palaces, churches, and public institutions had long been the mainstay of architectural practices, but modernist designers argued that architects should design all that was necessary for society, even the most humble buildings.
- c) Excavations indicate that workers' houses had two to four rooms all on one floor and were densely packed into a gridlike pattern, with narrow alleys running between long rows of these quarters
- d) Such houses are often of simple geometric shapes circular, with conical roofs, for example.
- e) In ancient Rome most people lived in the equivalent of apartment houses, three to five stories high, with apartments ranging from three to six rooms; some were like tenements, others were elaborate.

2. Match the following words with their meanings.

1. Lime	a. Building material made by mixing cement with sand, small stones and water.
2. Slag	b. A type of stiff sticky earth that becomes hard when baked and is used for making bricks, pots.
3. Beam	c. To make a structure or material stronger , eg by adding another material to it.
4. Reinforce	d. Wood prepared for use in building or carpentry
5. Steel	e. A house, a place of residence.
6. Concrete	f. A white substance obtained by heating limestone. It is used in building materials and to help plants grow.
7. Timber	g. A long piece of wood, metal concrete, usu supported at both ends, that bears the weight of part of a building or other structure
8. Clay	h. The waste material that remains after metal has been removed from rock by heating it.
9. Dwelling	i. The bottom of a fireplace
10. Hearth	j. A strong hard metal made of a mixture of iron and carbon.

3. Read the text again and decide if the statements listed below are true (T) or false (F).

1. Throughout the Middle East houses were made of mud, clay, timber or stone.
2. Tribal houses are made of bricks.
3. In tribal societies houses tend to have more than one room.
4. In the 20th century wooden beams were replaced by iron beams.
5. In the 19th century an Englishman experimented with a compound of lime, clay, sand and iron slag producing concrete.

**Present Simple /vs/ Present Progressive
Review : Structure / Usage (5 minutes)**

Structure

Simple Present	Present Progressive
infinitive (3rd person singular: infinitive + 's')	
I speak you speak he / she / it speaks we speak they speak form of 'be' and verb + ing	
I am speaking you are speaking he / she / it is speaking we are speaking they are speaking	

Usage

Simple Present	Present Progressive
Daily routine	
Bob works in a restaurant. only for a limited period of time (does not have to happen directly at the moment of speaking)	
Jenny is working in a restaurant this week.	

Signal words / Adverbial markers
▪ always
▪ every ...
▪ often
▪ normally
▪ usually
▪ sometimes
▪ seldom
▪ never
▪ first
▪ then
▪ at the moment
▪ at this moment
▪ today
▪ now
▪ right now
▪ Listen!
▪ Look!

1. Conjugate the verb in parentheses using the Present Tense Simple. In the case of questions, use the indicated subject as well.

1. I usually _____ (get up) at six o'clock.
2. How often _____ (she go) to the gym to workout?
3. They _____ (be) from Holland.
4. Jack _____ (not work) in the city.
5. Where _____ (he live)?
6. Alison _____ (visit) her friends on Saturdays.
7. They _____ (not eat) meat on Fridays.
8. _____ (you play) tennis?
9. Susan often _____ (drive) to the beach when the weather is nice.
10. Eric _____ (not read) in Japanese.

2. Conjugate the verb in parentheses in the present continuous tense. In the case of questions, use the indicated subject as well.

1. Alexander _____ (study) for his exams at the moment.
2. Where _____ (you meet) Tim next week?
3. She _____ (not play) Golf tomorrow.
4. They _____ (make) dinner now.
5. The company _____ (not finish) the plans this week.
6. She _____ (eat) oysters for lunch right now.
7. David _____ (not fly) to Chicago next week.
8. I _____ (work) on a special report today.
9. We _____ (not cook) dinner this evening because we're eating out.
10. _____ (Tom drive) to work right now?

3. Complete the sentences with the appropriate verbs. Use the same verbs for each sentence in the pair. Choose the present continuous, if possible; if not, use the present simple.

1. a. It (_____) us a fortune at the moment to send our daughter to dance classes.
b. It (_____) a fortune to fly first class to Japan.

2. a. I (_____) sitting down at the end of a long day and reading a good book.
b. It's a wonderful book. I (_____) every moment of it.

3. a. We've always wanted a house in the country, but we (_____) on where it should be.
b. When they agree with each other on so many important issues, I can't understand why they (_____) now on this relatively minor matter.

4. a. Can I speak to Dorothy? She (_____) a shower. Can I take a message?
b. My brother (_____) three children, all girls.

5. a. Although he (_____) three cars, all of them are extremely old.
b. in the north of the country, fewer and fewer people (_____) the houses they live in.

4. Correct the mistakes, if any.

1. The children is doing their homework now.

2. The girls are play tennis at the moment.

3. Both my brothers likes sports.