

Unit four

Eureka!

- **Academic year 2011/2012**
- **School:**
- **Level: 1st year**
- **Streams: literary and scientific.**
- **Unit: four.**
- **Title: Eureka.**
- **Topic: Communication.**
-

Sources

- **The students' course book (At the Cross Roads).**
- **The teacher's book of the first year.**
- **The internet.**
- **The Oxford Advanced Learners' Dictionary.**
-

Functions

- **Describing an object**
- **Questioning**
- **Narrating**
- **Expressing concession**
- **Comparing**
- **Contrasting**
- **Expressing opinion**
- **Asking for and giving advice**

Unit preview

Sequence One:

- ♥ Listen and respond to a presentation of an invention.
- ♥ Mark intonation in indirect questions.
- ♥ Mark stress in names of sciences and adjectives derived from them.
- ♥ Speak about inventions, discoveries and development in technology.
- ♥ Write a short paragraph about an invention.

Sequence Two:

- ♥ Read and respond to a text about the development of telecommunication.
- ♥ Express concession using *'however'*, *'although'*, *etc.*
- ♥ Write a paragraph out of a flow chart.

Sequence Three

- ♥ Listen and respond orally to the presentation of a product.
- ♥ Read and respond in writing to the presentation of a product.
- ♥ Read a newspaper article from an opinion page.
- ♥ Respond in writing to opinions about technology.

Stop and consider

- ♥ Use definite and indefinite articles.
- ♥ Express result using *so + adjective + that*.
- ♥ Describe an object: shape, colour, etc.
- ♥ Use the future perfect to predict completed actions in the future.

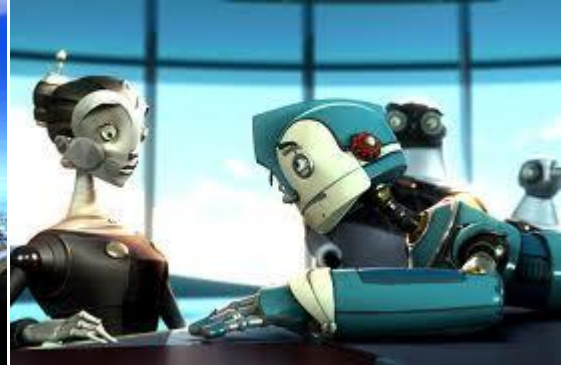
Sequence four

- ♥ Write a paragraph out of a flow chart about an invention.
- ♥ Write an inventor's biography.
- ♥ Identify problems related to video-games.
- ♥ Identify problem sounds: /n/ and /ŋ/.

Look at the following pictures then discuss.



Robertsville



Robots



Teacher

What does the first picture represent?
Who is the man in the picture?

Where is he?
What is he doing?
The third picture represents robots. What is the job of robots?
Did robots exist in the past?

Pupils

It represents a city of robots.
He is a scientist.
He is an inventor.
He is in a laboratory.
He is working.
They can do many jobs. Especially the hard work.
No, they did not. They appear thanks to technology.

Good. Our unit will be about technology and inventions. People in the past did the hard jobs in hands and this requires lots of time and effort. But thanks to technology and science Man had invented robots which make life easier because robots perform jobs that humans find dull, dangerous or difficult. Robots can be adapted to a variety of tasks. Industry, medicine, farming, the military, the space have all seen the expansion of robotics in their practice. The home also has become a hotbed for technology, as many appliances have now become “smart” devices over the years. The impact on humans is varied, but the utilization of robots will continue throughout this century and beyond.

Listening and speaking
Anticipate

Sequence one

Anticipate:

Task p 110:

• Look at the picture and answer questions A-E that follow. Use words from the box below.

Brush bucket water stream dirt washboard clothes washing machine river clothes beater well



- A. Where do you think the women are?
Is it ...
 - a. In the town b. or in the countryside?
- B. Are the women...
 - a. Rolling couscous b. eating c. or washing clothes?
- C. Besides their hands, what else are they doing? Choose one answer:
 - a. A washboard and a brush b. their feet c. a clothes beater.
- D. What are they doing it for? Choose one answer:
 - a. To remove the water from the clothes.
 - b. To remove the dirt from the clothes.
 - c. To remove the soap from the clothes.
- E. Do you think it is the right way of doing it? If yes, why? If 'no', why?

Key answer:

- A. They are in the country side.
- B. They are washing clothes.
- C. Besides their hands, they are using a washboard, a brush and a basin.
- D. They are doing it to remove the dirt from the clothes.
- E. No, it isn't. The washboard and the brush will use up the clothes.
- F.

Listen and check

Task 1 p 111: Listen to the first part of a short presentation of an invention and check your answers to questions C, D and E.

To introduce the topic by interpreting pictures

To familiarize lls with the new lexis related to the topic.

To interact and identify the old method of washing.

To get new vocabulary items.

Listen and check

•To check the previous answers.
•To compare the manual and the electric washing

Task 2: Listen to the second part of the presentation and answer the questions below.

machine.

- A. What does the object in picture 1 represent?
- B. What is the object in picture 2?
- C. Does the presentation give us a description of the device?
- D. If not, what does it tell us about?
It tells us about...
 - a. The functioning of the device.
 - b. The invention's profile.
 - c. An inventor's biography.



The listening passage:

Part I

Thanks to technology, there are many labour-saving devices in the modern home today. If they were not there, people could not save time and effort. But things were difficult in the old days. People had to keep clean, and they did so by washing their clothes by hand in rivers or country streams. Sometimes they used a washboard on which they moved the clothes up and down, and sometimes a small rock to beat the clothes. That is how they kept clean.

However, there were three main drawbacks to this solution. Firstly, it took a long time to clean the clothes. Secondly, it was very hard work. Thirdly, clothes did not last very long because the stones, brushes and washboards damaged them.

Part II

In 1851, a man called James King invented a washing machine powered by hand. Yet, this was still hard work, even though it did not take as long as before to clean the clothes with the manual washing machine. Thus, in 1909, a company in the U.S.A. produced the first

electric washing machine. And today, this device is so useful that almost every home has one.

Key to task 2:

- A. It represents a washing machine powered by hand/ a manual washing machine.
- B. An electric washing machine.
- C. No, it doesn't.
- D: It tells us about an invention's profile / the invention and evolution of the washing machine.

Task 3 p 111: Listen to the presentation again and fill in the blanks in the boxes below with notes (information).

Sequencing /organizing ideas in a logical order to describe the invention.

	A	B
1	Introduction	Importance of home labour-saving devices
2	Problem
3	Original solution/...../washboard/.....
4	Problem with the solution	But.....
5	Invention (who, what, when...)	James King /washing machine/ 1851
6	Problems	However.....
7	Innovation /New invention	1908 /...../.....
8	Conclusion	Almost every home.....

Key to task 3:

	A	B
1	Introduction	Importance of home labour-saving devices
2	Problem	People had to keep clean.
3	Original solution	hand/small rock /washboard/brush
4	Problem with the solution	But long time; hard work; clothes damaged.
5	Invention (who, what, when...)	James King /washing machine/ 1851

6	Problems	However still hard work / hand powered.
7	Innovation /New invention	1908 /US company / electric machine
8	Conclusion	Almost every home has one.

Say it clear

Say it clear

Task 1 p 112: Listen and mark the intonation at the end of the questions below with an arrow (↘ or ↗)

Who invented the washing machine?

Key to task 1:

Who invented the washing machine? ↗

Rule: Intonation in 'wh' questions.

The voice goes **down** at the end of **wh- questions**.

Task 2 p 112: Now, listen to the same questions asked indirectly and mark the intonation at the end of the indirect questions below with an arrow (↘ or ↗)

- A. Can you tell me who invented the first washing machine?
- B. Have you got any idea who invented the first washing machine?
- C. Do you happen to know who invented the first washing machine?

Key to task2:

- A. Can you tell me who invented the first washing machine? ↗
- B. Have you got any idea who invented the first washing machine? ↗
- C. Do you happen to know who invented the first washing machine? ↗

The rule:

The voice goes up at the end of yes/no questions and down at information questions.

Task 4 p 112: Listen and put stress mark (ˈ) on the stressed syllable of the transcribed names of sciences in column A below.

Column A: names of sciences

Column B: Adjectives derived from the names of sciences.

Introduce the phonological notion of intonation. To identify the intonation pattern in 'wh' questions.

To mark the intonation in the indirect questions and practice them.

To mark the stress in names of sciences and adjectives derived from them.

Technology /teknɒlədʒi/
 Ecology /ɪkɒlədʒi/
 Geology /dʒiɒlədʒi/
 Sociology /səʊsiɒlədʒi/
 Biology /baɪɒlədʒi/
 Hydrology /haɪdrəl
 ədʒi/
 Anthropology /ænθrəpələdʒi/
 Bacteriology /bæktɪəriələdʒi/

Technological/teknələdʒɪkl/
 Ecological/ ɪkələdʒɪkl/
 Geological/ dʒiələdʒɪkl/
 Sociological /səʊsiələdʒɪkl/
 Biological/baɪələdʒɪkl/
 Hydrologica/haɪdrələdʒɪkl/
 Anthropological/ænθrəpələdʒɪkl/
 Bacteriological/bæktɪəriələdʒɪkl/

Key to task 4:

Column A: names of sciences	Column B: Adjectives derived from the names of sciences.
Technology /tek'nɒlədʒi/ Ecology /ɪ'kɒlədʒɪ/ Geology /dʒi'ɒlədʒɪ/ Sociology /səʊsi'ɒlədʒɪ/ Biology /baɪ'ɒlədʒɪ/ Hydrology /haɪ'drɒlədʒɪ/ Anthropology /ænθrə'pələdʒɪ/ Bacteriology /bæktɪəri'ɒlədʒɪ/	Technological/teknə'lɒdʒɪkl/ Ecological/ ɪkə'lɒdʒɪkl/ Geological/ dʒiə'lɒdʒɪkl/ Sociological /səʊsiə'lɒdʒɪkl/ Biological/baɪə'lɒdʒɪkl/ Hydrologica/haɪdrə'lɒdʒɪkl/ Anthropological/ænθrəpə'lɒdʒɪkl/ Bacteriological/bæktɪəriə'lɒdʒɪkl/

The rule:

The rule here is **that stress falls on the ante-penultimate syllable (third from the end)**. This holds true for all words ending with 'cy', 'ty', 'phy', 'gy', and 'al'.

The adjectives and the names of science in the table (task3) end respectively in 'al' and 'gy'. There is a shift in stress when words related to science change their grammatical category because of the addition of the suffix 'al', but the rule remains the same i.e., stress should fall on the ante-penultimate syllable of the adjectives and names.

The hidden message

the hidden message

Decipher the message below and use the letters of the alphabet to write

To transform phonetic script into alphabetical letters.

it.

/ðə prezn'teɪʃn ɪz ə'baʊt ðɪ ɪn'venʃən əv ðə 'wɒʃɪŋ mə'ʃi:n/
The presentation is about the invention of the washing machine.

It's your turn

It's your turn

Task 1 p 113: Match pictures 1-4 with the names of inventions A-D in the table that follows.



Louis Pasteur	Alexander Fleming	Alexander Graham Bell	Albert Einstein
1822-1895 Born in France 1885 (A)	1881-1955 Born in Scotland 1928 (B)	1847-1922 Born in Scotland 1876 (C)	1879-1955 Born in Germany 1905 (D)

Key to task 1:

- A → 2
- B → 4
- C → 1
- D → 3

Task 2 p 113: Match the names of scientists 1-4 with inventions or discoveries (A-D). Then write sentences using the matched parts and the verbs in the table below.

1. Albert Einstein 2. Alexander Graham Bell 3. Alexander Fleming 4. Louis Pasteur	discovered invented formulated	A. Penicillin. B. The theory of relativity. C. the vaccine against rabies. D. the telephone.
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Key to task 3:

- 1- Alexander Graham Bell invented the telephone.
- 2-Alexander Fleming discovered Penicillin.
- 3-.Louis Pasteur discovered the vaccine against rabies.
- 4-Albert Einstein formulated the theory of relativity.

Say it in writing

✍ Use the information in exercises 1 and 2 above to write a short

Introducing some inventors' biographies.

To develop lls' ways of writing. To write a

Say it in writing

biography of one of the people in the pictures.

★ The teacher brainstorms the topic with the students and jot notes on board.

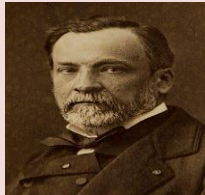
TS: Do you know who is Louis Pasteur?

TS: Do you know who discovered the vaccine against rabies?

★ Then the teacher asks the students to find out more information about Louis Pasteur and write his biography

Use the following notes to write a biography about Louis Pasteur.

biography using the notes given.

Louis Pasteur	
 Louis Pasteur photographed by Pierre Lamy Petit	
Born	December 27, 1822 Dole, Jura, Franche-Comté , France
Jobs	A professor of chemistry in 1848
Father	A poor tanner
Died	September 28, 1895 (aged 72) Marnes-la-Coquette, Hauts-de-Seine , France
Nationality	French
Fields	Chemistry and Microbiology

Institutions	Dijon Lycée University of Strasbourg Université Lille Nord de France École Normale Supérieure
Marriage	May 29, 1849 with Mary Laurent (the daughter of the university's rector of Strasbourg.)
<u>Alma mater</u> (is often any school, college, or university at which one has studied and usually, from which one has graduated)	École Normale Supérieure

🔑 Key to task 1:

Louis Pasteur was born on December 1822 in France. He grew up in a poor family. His father was a tanner. But in spite of this he was a genius and gained degrees in Letters and Mathematical Sciences. In 1848, he became a professor of chemistry at the university of Strasbourg where he met Marie Laurent, a daughter of university's rector. They were married on May 29, 1849. They had five children, only two of them survived; the other three died of typhoid. That's why Pasteur sacrificed all his time and researches to find cures to fatal diseases such as typhoid and anthrax. He also created the first vaccine against rabies and thus saved the lives of many people. He died on September 28, 1895. He was a national hero and was given a state funeral.



The house in which Pasteur was born, [Dole](#)

**Sequence two
Reading and
writing**

Anticipate

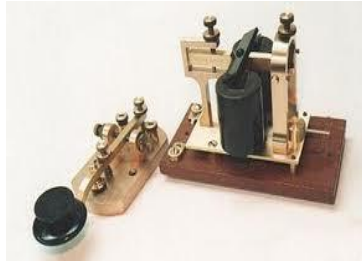
Sequence two

To introduce the topic and its key words.

Anticipate

Task 1 p114: Match pictures of items 1-4 with their names A-D in the box below.

A. Drum B. telegraph C. telephone D. satellite



1



2



3



4

Key to task 1:

- 1 → B
- 2 → D
- 3 → A
- 4 → C

Task 2 p 114: What do all the items represented in pictures 1-4 above refer to? Circle the correct letters A, B, C or D. justify your answer.

- A. The development of the radio
- B. The development of telecommunication
- C. The start of telecommunication
- D. The development of the satellite system.

Key answer:

B. The development of telecommunication.

Task 3 p 114: Guess when the items in the pictures above were invented. Write the names of the items/inventions in column A.

Name of item	Date /Time period
	Ancient times
	1876
	1890s
	Mid-twentieth century

Read and check

Key to task 3:

Name of item	Date /Time period
drum	Ancient times
telephone	1876
telegraph	1890s
satellite	Mid-twentieth century

Read and check

Task 1 p 115: Read the text below and check your answers to tasks 2 and 3 above.

Task 2 p 115: Read the information in bold type in the text above and tick (✓) the most suitable title for the text. Justify your answer.

- A. Telecommunication and satellites.
- B. Graham Bell's invention.
- C. Telecommunication: Past, Present and Future.

Key to task 2:

The most suitable title: Telecommunications: Past, Present and Future

Task 3 p 115: Read the text again and answer the questions below.

- A. What invention was the ancestor of the radio?
- B. What was the problem with long-distance voice communication?
- C. What was the solution to the problem?

Key to task 3:

- A. The 'wireless' telegraph was the ancestor of the radio.
- B. The problem with long-distance voice communication was that the transmissions followed a straight line from tower to tower. This made the system impracticable over the sea.
- C. The solution was a system of communication satellites orbiting around the earth.

Discovering the language

Task 1 p 117: Read the text on the previous page and say why the author uses **however** to make the transition from paragraph 1 to paragraph 2.

Circle the correct answer A, B or C.

The author uses '**however**' to express:

- A. Addition B. concession C. cause/ effect

Key answer :

The author uses '**however**' to express **concession** because the

To check IIs' answers.
To skim the text.

To scan the text.
To check IIs' understanding.

Discovering the language

To express concession using "however".

information in §2 contrasts with that of §1.

Task 2 p 116: Match sentences 1-3 in column A with sentences a-c in column B. then join them with however to form complex sentences.

Example:

In ancient times, men used drums to send and receive messages.

However, communication through drums was not satisfactory.

Column A	Column B
1- The washboard is a convenient solution. 2. Einstein’s discovery revolutionized science. 3. Graham Bell managed to solve the problem of long-distance communication.	a. It led to the making of the Atom Bomb. b. It necessitated the installation of telephone poles and wires. c. It uses up clothes.

Key to task 2:

Column A	Column B
1- The washboard is a convenient solution. 2. Einstein’s discovery revolutionized science. 3. Graham Bell managed to solve the problem of long-distance communication.	a. It led to the making of the Atom Bomb. b. It necessitated the installation of telephone poles and wires. c. It uses up clothes.

- 1- The washboard is a convenient solution. **However**, it uses up clothes.
- 2- Einstein’s discovery revolutionized science. **However**, it led to the making of the Atom Bomb.
- 3- Graham Bell managed to solve the problem of long-distance communication. **However**, it necessitated the installation of telephone poles and wires.

Task 3 p 116: Use the information in the box below to complete the sentences that follow.

Difficult / put/ satellite / into orbit
 Require/ large amounts/ cable
 Transmissions/ seas/ impracticable

To introduce new conjunctions expressing concession.

- A. **Although** Bell’s invention solved the problem of long-distance communications.....
- B. **Though** Marconi’s invention solved the problem of cables
- C. **Even though** Arthur Clarke’s suggestion could solve the problem.....

Key to task 3:

- a- Although Bell’s invention solved the problem of long-distance communications, it required large amounts of cable.
- b- Though Marconi’s invention solved the problem of cables, transmission overseas was impracticable.
- c- Even though Arthur Clarke’s suggestion could solve the problem, it was difficult to put a satellite into orbit at that time.

Write it right

Write it right

Task 1 p 117: Sentences A-D below are not in order. Re-order them according to the plan in the box that follows to get a coherent paragraph.

- A. So, in the old days men used drums and other archaic means to communicate.
- B. In 1876, Graham Bell solved the problem by inventing the telephone.
- C. The human voice does not allow people to communicate over very long distances.
- D. However, it took people a lot of time to send and receive messages.

1- problem <input type="checkbox"/> → 2- initial solution <input type="checkbox"/> → 3- problem raised by the initial solution <input type="checkbox"/> → 4- invention
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Key to task 1:

- 1- Problem:** The human voice does not allow people to communicate over very long distances. (c)
- 2-Initial solution:** So, in the old days men used drums and other archaic means to communicate. (a)
- 3- Problems raised by the initial solution:** However, it took a lot of time to send messages. (d)
- 4- Invention:** In 1876, Graham bell solved the problem by inventing the telephone. (b)

Task 2 p 117: Use the words in the box below to fill in the table that follows.

Nouns: hand dishes dust food carpets meal
Verbs: wash use beat start sweep take

Problem	Initial solution	problems with the solution	Invention	Inventor	Date
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To order the sentences according to the given paragraph organization.

.....get dirty when you ...them up	...them up by...	Time consuming; much effort	dishwasher	Josephine Cochran, housewife	1889
Floors and ... get covered in ... and dirt.	... with a brush; ... carpets with a stick	Get used up	Vacuum cleaner	John Thurman, businessman	1899
Ovens ... a long time to cook cooking a long time before the ... is served	Consume energy	Microwave oven	Dr Percy Spencer, scientist	1946

Key to task 2:

Problem	Initial solution	problems with the solution	Invention	Inventor	Date
Dishes get dirty when you use them up	Wash them up by hand	Time consuming; much effort	dishwasher	Josephine Cochran, housewife	1889
Floors and carpets get covered in dust and dirt.	Sweep with a brush; beat carpets with a stick	Get used up	Vacuum cleaner	John Thurman, businessman	1899
Ovens take a long time to cook food	Start cooking a long time before the meal is served	Consume energy	Microwave oven	Dr Percy Spencer, scientist	1946

Task 3 p 117: Use the information in the table above to write a coherent paragraph about one of the inventions.

Key to task 3:

Dishes get dirty when you use them. So, we have to wash them by hand in order to remove the dirt. However, this consumes much time and effort. As a result, Man started thinking in ways to save both time and effort and in 1889, a housewife called Josephine Cochran succeeded in inventing a dishwasher which makes life easier.

To write a paragraph out of a flow chart about an invention expressing concession.



Sequence three
Developing skills

Modern dishwashers are descended from the 1887 invention of Josephine Cochrane who invented a new advanced dishwasher, also hand-powered, which she unveiled at the 1893 Chicago World's Fair. Cochrane was quite wealthy and was the granddaughter of John Fitch, the inventor of the steamboat. She never washed dishes herself and only invented the dishwasher because her servants were chipping her fine china.

Sequence three

Task 1 p 120: Match the inventions in column A with their drawbacks in column B.

Column A:Inventions	Column B: Drawbacks
A. Automobile B. Cell phone C. Television set D. Computer E. Walkman F. Calculator	1. Experts say it causes hearing problems. 2. It can cause health problems and death to motorists and passengers. 3. It reduces arithmetic mental ability. 4. It distracts drivers and causes accidents. 5. It can distract from work. 6. It can cause eyesight problems.

Key to task 1:

Column A:Inventions	Column B: Drawbacks
A. Automobile B. Cell phone C. Television set D. Computer E. Walkman F. Calculator	1. Experts say it causes hearing problems. 2. It can cause health problems and death to motorists and passengers. 3. It reduces arithmetic mental ability. 4. It distracts drivers and causes accidents. 5. It can distract from work. 6. It can cause eyesight problems.

To give the advantages and the drawbacks of different inventions.

Task 2 p 120: Write six sentences about the advantages of the inventions in the box above.

Example: The automobile allows us to travel over long distances.

Key to task 2:

- B. The cell phone allows us to get in touch with people wherever they are.
- C. The television set allows us to have entertainment.
- D. The computer allows us to work very quickly and efficiently.
- E. The walkman allows us to listen to music without disturbing others.
- F. The calculator allows us to do very difficult sums very quickly.

Task 3 p 120: Use the information in exercises 1 and 2 to write complex sentences like the one in the example below.

Example: Though the automobile allows us to travel over long distances; it can cause health problems and death to motorists and passengers.

Key to task 3:

- A. Though the automobile allows us to travel over distances, it can sometimes cause health problems and death to motorists and passengers.
- B. Though the cell phone allows us to get in touch with people wherever they are, it distracts drivers and causes accidents.
- C. Though the television set allows us to have entertainment, it can distract from work.
- D. Though the computer allows us to work very quickly and efficiently, it can cause eyesight problems.
- E. Though the walkman allows us to listen to music without disturbing others, experts say it causes hearing problems.
- F. Though the calculator allows us to do difficult sums very quickly, it reduces arithmetic mental ability.

STOP AND CONSIDER

Task 1 p 122: Read the Reminder I below and use the structures written in green to rewrite sentences A-D that follow. There are many possibilities.

REMINDER I

We can describe shape and colour in three different ways. Look at these examples:

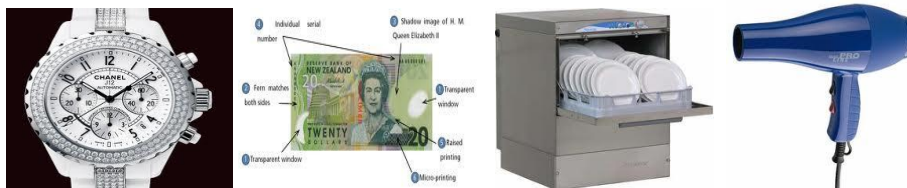
- It is square. → It is square in shape. → Its shape is square.
- It is tallow. → It is yellow in colour. → Its colour is yellow.

Stop and consider

To use the info in act 1&2 to write sentences expressing concession.

To describe an object by giving its colour and shape connected by "with"

- A. The watch is white in colour and oval in shape.
- B. The banknote is green and rectangular.
- C. The dishwasher is cubic in shape.
- D. The colour of the hairdryer is blue.



Key to task 1:

- A. The watch is white and oval / Its colour is white and its shape is oval.
- B. The banknote is green in colour and rectangular in shape / the colour of the banknote is green and its shape is rectangular.
- C. The dishwasher is cubic / the shape of the dishwasher is cubic.
- D. The hairdryer is blue / the hairdryer is blue in colour.

Task 2 p 122: Read the Reminder II and match sentences 1-4 in column A with follow-up sentences A-D in column B. then join the pairs of sentences with **'with'**. Make the necessary changes.

REMINDER II

Look at these two sentences:	We can use 'with' to join them.		
The coffee machine is red. It has three buttons.	1 st part of the sentence	with	what
	The coffee machine is red	with	Three buttons

Column A	Column B
<ul style="list-style-type: none"> 1. The car is new. 2. The watch is square. 3. The mobile phone is small. 4. The washing machine is made up of plastic. 	<ul style="list-style-type: none"> A. It has large luminous numbers. B. It has a metal drum. C. It has tinted windows and an air bag. D. It has silver hands and a gold strap.

Key to task 2:

- 1. The car is new with tinted windows and an air bag.
- 2. The watch is square with silver hands and a gold strap.
- 3. The mobile phone is small with large luminous numbers.

When and why to use the definite and indefinite

4. The washing machine is made of plastic with a metal drum.

articles.

Task 4 p 123: Read the Reminder III below. Then cross out the definite article 'the' where it does not fit in the text that follows.

REMINDER III

- A. We use 'the' when we refer to something which is unique.
Example: The earth goes round the sun and the moon goes round the earth.
- B. We don't use 'the' when we make a general reference.
Example: Ø People like Ø technology once they know how it works.
- C. We use 'the' when the noun is defined by a prepositional phrase.
Example: Pollution is a major ecological problem. But we say: The pollution of the oceans is a major ecological problem.
- D. We use 'the' when we refer to a type of a machine, an invention, etc.
Example: The telephone is a very useful device.

The man has depended upon the sea for centuries. It has been a source of the food, a defensive barrier and a means of the transportation. The oceans cover more than 70 percent of the earth's surface, and have played an important role in the spread of the civilization and the development of the culture. However, it was not until the beginning of the twentieth century that the man started to explore the ocean floor for search of the new sources of food and the raw materials. In order to do this, he developed further the submarine, a machine the idea of which has been with us since Da Vinci's time.

Key to task 4:

- Ø man - **the** sea - Ø food - Ø transportation
 Ø oceans - **the** earth - **the** spread - Ø civilization
the development - Ø culture - **the** twentieth century
 Ø man - **the** ocean floor - Ø new sources
 Ø raw materials - **the** submarine

Task 5 p 123: Read Reminder IV and cross out indefinite articles 'a' and 'an' where they do not fit in the text that follows.

REMINDER IV

- A. We use 'a' or 'an' when we say what something/someone is, or what something /someone is like.
Example: Rabies is a very dangerous disease.
- B. We use 'a' when we refer to jobs.
Example: Before he became an explorer, Armstrong was a pilot.
- C. We cannot use 'a' before uncountable and abstract nouns.
Example: Ø Gas oil is a type of oil largely used in Ø heating

technology.

A Cleanliness is essential for a healthy skin and a good complexion. In general, the average person should clean himself or herself with a mild soap and a warm water daily. This eliminates an excessive oil and dirt that has collected during the day. A soap is the most satisfactory of all cleansing agents. It can cure an acme, which is a skin disease common with young people.

Key to task 5

- Ø cleanliness - **a** healthy skin - **a** good complexion
- Ø mild soap - Ø warm water - Ø excessive oil
- Ø soap - **an** acme - **a** skin disease

Task 6 p 124: Read Reminder V below and the captions in the pictures that follow. Then use the information in the captions to write sentences with **whom**.

Why to use "whom".

REMINDER V

The relative pronoun 'whom' is used when the antecedent is a PERSON and OBJECT as in the example below.

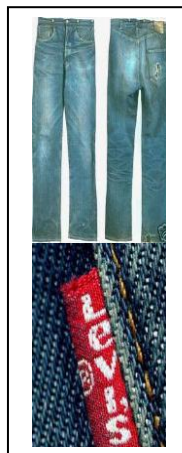
Example:

I talked to a **man** on the phone. I guess you're the man.
(subject) (object)

→ I guess you are the man **whom** I talked on the phone.

We should thank **James King**. He invented the washing machine.
(subject) (object)

→ James King is the person **whom** we should thank for inventing the washing machine.



Coca cola (1886) Dr John Pemberton is druggist. He invents Coca in Atlanta, Georgia

Jeans (1860) Levi Strauss makes the first jeans.

Chewing Gum (1892) William Wrigley makes flavoured chewing gum.

Xerox (1938) Chester Carlson invents the photocopying machine.

Key to task 6:

- ♣ We should thank Dr John Pemberton. He invented Coca Cola in 1886.
Dr John Pemberton is the man whom we should thank for the invention of Coca Cola.
- ♠ We should be grateful to Levi Strauss. He made the first jeans in 1860.
Levi Strauss is the man to whom we should be grateful for the invention of the jeans.
- ♥ We should be thankful to William Wrigley. He invented flavoured chewing gum in 1892.
William Wrigley is the man to whom we should be thankful for the invention of flavoured chewing gum.
- ♦ We ought to thank Chester Carlson. He invented the photocopying machine in 1938.
Chester Carlson is the man whom we ought to thank for the invention of the photocopying machine.

To express result using the structure 'so + adj + that.'

Task 7 p 124: Read Reminder VI below and match the statements in column A with the results in column B of the table that follows. Then join them with 'so + adjective + that' to form complex sentences.

REMINDER VI

You can express result by using 'so + adjective + that'.
Example:
 The washing machine is useful. Nearly every home has one.
 → The washing machine is **so useful that** nearly every home has one.

Column A	Column B
Statements: 1. The cell phone is useful. 2. The satellite is distant. 3. The experiment was difficult. 4. The refrigerator was expensive. 5. Pasteur's discovery was important for man's health.	Results: A. Not many people could buy one. B. Many people gave money to build a Pasteur Institute in Paris. C. The inventors spent long nights in his laboratory. D. Nearly everybody has one. E. It covers a large part of the Earth.

Key to task 7:

Column A	Column B
----------	----------

Statements:

- 1. The cell phone is useful.
- 2. The satellite is distant.
- 3. The experiment was difficult.
- 4. The refrigerator was expensive.
- 5. Pasteur's discovery was important for man's health.

Results:

- A. Not many people could buy one.
- B. Many people gave money to build a Pasteur Institute in Paris.
- C. The inventors spent long nights in his laboratory.
- D. Nearly everybody has one.
- E. It covers a large part of the Earth.

**Sequence four
Consolidation and
extension**

- 1. The cell phone is so useful that nearly everybody has one.
- 2. The satellite is so distant that it covers a large part of the Earth.
- 3. The experiment was so difficult that the inventor spent long nights in his laboratory.
- 4. The refrigerator was so expensive that not many people could buy one.
- 5. Pasteur's discovery was so important for man's health that many people gave money to build a Pasteur Institution in Paris.

To identify
problem
consonants: ŋ / n.

Sequence four

Problem consonants

Task 1 p 130: Your teacher will read 3 sentences among the three pairs of sentences below. Tick (✓) the ones you hear.

- A. Look, that's wrong. /lʊk ðæts rɒŋ/
- B. Look, that's Ron /lʊk ðæts rɒn/

- A. Dracula has fangs /drækjələ hæz fæŋz/
- B. Dracula has fans /drækjələ hæz fænz/

- A. He's got a marvelous tan /hiz gɒt ə ma:vələs tæn/
- B. He's got a marvelous tank. /hiz gɒt ə ma:vələs tæŋk/

Key to task 1:

- A: wrong /ŋ/ A: fangs /ŋ/ A: tan /n/
- B: Ron /n/ B: fans /n/ B: tank /ŋk/

Task 3 p 130: Listen and tick (✓) the missing sound(s) for each of the transcribed words in the table below.

Word	/n/	/ŋ/	/ndŋ/	/ŋg/	/ŋk/
Bang /bæ...../	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Danger /deɪ...ə/	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Singer /sɪ...ə/	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Wing /wɪ.../					
Sun /sʌ.../					
Pink /pɪ.../					
Bank /bæ.../					
Thinker /θɪ...ə/					
Finger /fɪ...ə/					
Anger /æ...ə/					
Stranger /streɪ...ə/					

Key to task 3:

Word	/n/	/ŋ/	/ndʒ/	/ŋg/	/ŋk/
Bang /bæ.../		✓			
Danger /deɪ...ə/			✓		
Singer /sɪ...ə/				✓	
Wing /wɪ.../		✓			
Sun /sʌ.../	✓				
Pink /pɪ.../					✓
Bank /bæ.../					✓
Thinker /θɪ...ə/					✓
Finger /fɪ...ə/				✓	
Anger /æ...ə/				✓	
Stranger /streɪ...ə/			✓		

Task 4 p 130: A and B are tongue twisters written in phonetic script. Decipher them and use the letters of the alphabet to write them. Then read them to the class.

- A. / ðə bæŋkə hʊ ɪz sɪtɪŋ ɪn ðə bæŋk ɪz sɪŋɪŋ ə sɒŋ /
- B. /ðə sɪŋnə ɪz sɪŋkɪŋ ɪn ə deɪndʒərəs swɪmɪŋ pʊl/

Key to task 4:

- A. The banker who is sitting on the bank is singing a song.
- B. The singer is singing in a dangerous swimming pool.