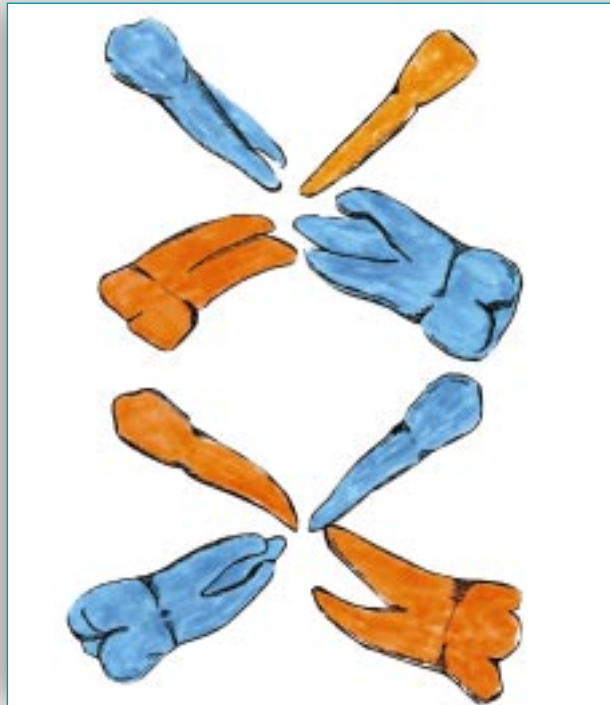


UNIT 3

Our Teeth: Use and Structure





A Our teeth, their use, how they are made

Our teeth are part of our chewing system or as it is formally called, our masticatory system. We need our teeth to crush and chew our food, and then, together with our tongue, to swallow it. These are not the only jobs that our teeth do. We need our teeth to help us talk. Could you talk only with your mouth muscles and your tongue? Of course not. Teeth also take part in our breathing, when we do not use our nose to do it, because it is blocked when we have a cold. Then, our teeth open slightly to let the air in and out again.

Teeth are used to hold things between them (e.g. a pen, a knife etc.) and even to carry them from one place to another. I know a man who can hold and carry a whole table with his teeth. Because teeth serve us in many ways, it is important to study them and learn as much as we can about them. It is necessary to have a detailed knowledge of how teeth are structured. Also, in order to understand how our teeth develop, we must study the relations of teeth to each other.

From a distance, teeth look like little white stones in a row. Athina, who wants to become an actress, wishes her teeth were as beautiful and shiny as pearls are. She would also like her teeth to be even, but they are not.

Teeth are made of hard material and they look like white stones, but they are not dead. If one bites something very hot, his teeth feel it. The same happens if one bites something very cold. Teeth are alive and sensitive to change of temperature, they can sense the difference between soft things and hard things, juicy things and dry things. They are like small factories, which work for us day and night non-stop.

Peter's mother is a dental technician assistant, and her hobby is drawing. She offered to help us understand how a tooth is made, and how it works. She drew some pictures for us. In the first, we can see only one tooth, but with many details. In the second, we can have a good look at all our teeth, when we are young. In the pages that follow we will talk more about all the pictures Peter's mother drew for us.



Task 1

Choose the best answer to the questions below.

1. **Our teeth do:**
 - a) More than three jobs
 - b) Only two jobs
 - c) No job at all
 - d) Only one job
2. **We talk with the help of:**
 - a) Our nose
 - b) More than one organs
 - c) Our teeth
 - d) Our mouth muscles
3. **People carry things with:**
 - a) Hands
 - b) Feet
 - c) Teeth
 - d) Hands and teeth sometimes
4. **We must learn about our teeth:**
 - a) Because we could chew better
 - b) Because they are useful to us in many ways
 - c) Because we could breath better
 - d) Because we could talk better.
5. **Because our teeth look like stones:**
 - a) They are dead
 - b) They do not feel the pain
 - c) This does not mean they are dead
 - d) They do not feel anything
6. **Teeth are sensitive to changes of temperature:**
 - a) To protect us in many ways (e.g. not to burn our mouth and throat organs)
 - b) For no reason at all
 - c) Because they are like factories
 - d) Because they have to work a lot

Task 2

Answer the questions that follow:

- a. Can you name at least 5 things we do with our teeth?

.....

.....

- b. Is it true that when our nose is blocked our teeth help us with our breathing?

.....

.....

- c. Can you find an example in the passage above that tells us how strong our teeth are?

.....

.....

- d. Why should we have a detailed knowledge of how our teeth are?

.....

.....

- e. How would Athina like her teeth to be?

.....

.....

- f. Can you name at least 3 things our teeth sense?

.....

.....

Task 3

Complete the diagram with the uses of our teeth. The first letter of each word is given to you.

Our teeth help us to:

C_____ o_____ f_____

C_____ o_____ f_____

S_____ o_____ f_____

T_____

B_____

H_____ t_____
b_____ t_____

C_____ t_____



B Dental Anatomy

B1. How teeth are structured

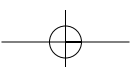
Let's have a close look at the picture (figure 3.1) Peter's mother drew for us. It shows how a tooth looks from the inside, if we cut it in two parts, all along its length. The part we can see is called **crown**.

The part we cannot see is called **root**. Teeth have more than one roots. The end of a root is called **apex**, while the point where a root joins the crown is called **neck** (dotted line in Figure 3.1). Cracks on the surface of the tooth with which we chew are called **fissures**, and **cusps** are the parts of a tooth that stand out. The material (or substance) that covers the crown is the hardest material in the human body, and is called **enamel**. **Cementum**, is another kind of substance (similar to the substance our bones are made of) which protects the root of a tooth. Enamel and cementum meet at the neck of a tooth.

Imagine what would happen if the shock from putting pressure to break something or contact with extreme temperatures touched the nerves and the blood vessels that feed our teeth. To say the least, the pain would be horrible. Fortunately, a substance called dentine occupies the inside of the crown and the root of our teeth. It is not as hard as the enamel, only the layer close to the enamel of a tooth is hard. The rest of the **dentine** is full of microscopic tubes, which absorb shocks. Cementum is also protected by a layer of such kind of a shock-absorber. This layer is called **periodontium** membrane. The membrane that helps the tooth to stick to its socket is called **periodontal membrane**.

Have you ever been at a dentist's? Do you remember the pain you felt when the drill touched the central part of your tooth? Well, this central part of your tooth is called **pulp**. It is made of soft tissue and contains nerves and blood vessels which feed our teeth. That's where toothache takes place. Nerves and blood vessels enter the **root** through a **canal**. At the top of the canal pulp occupies more space in the crown.

Our teeth cannot stand on their own. They need support. Our **jaws** support them. They have sockets where the roots of our teeth fit in. Our jaws are not made of solid bone, but of a kind of spongy bone. Additional support to our teeth is given by our **gums**. They are fleshy tissues and they fit tightly round the neck of each tooth. When they are healthy, they are firm and pink.



The Structure of a Tooth

Η Δομή (ανατομία) ενός Δοντιού

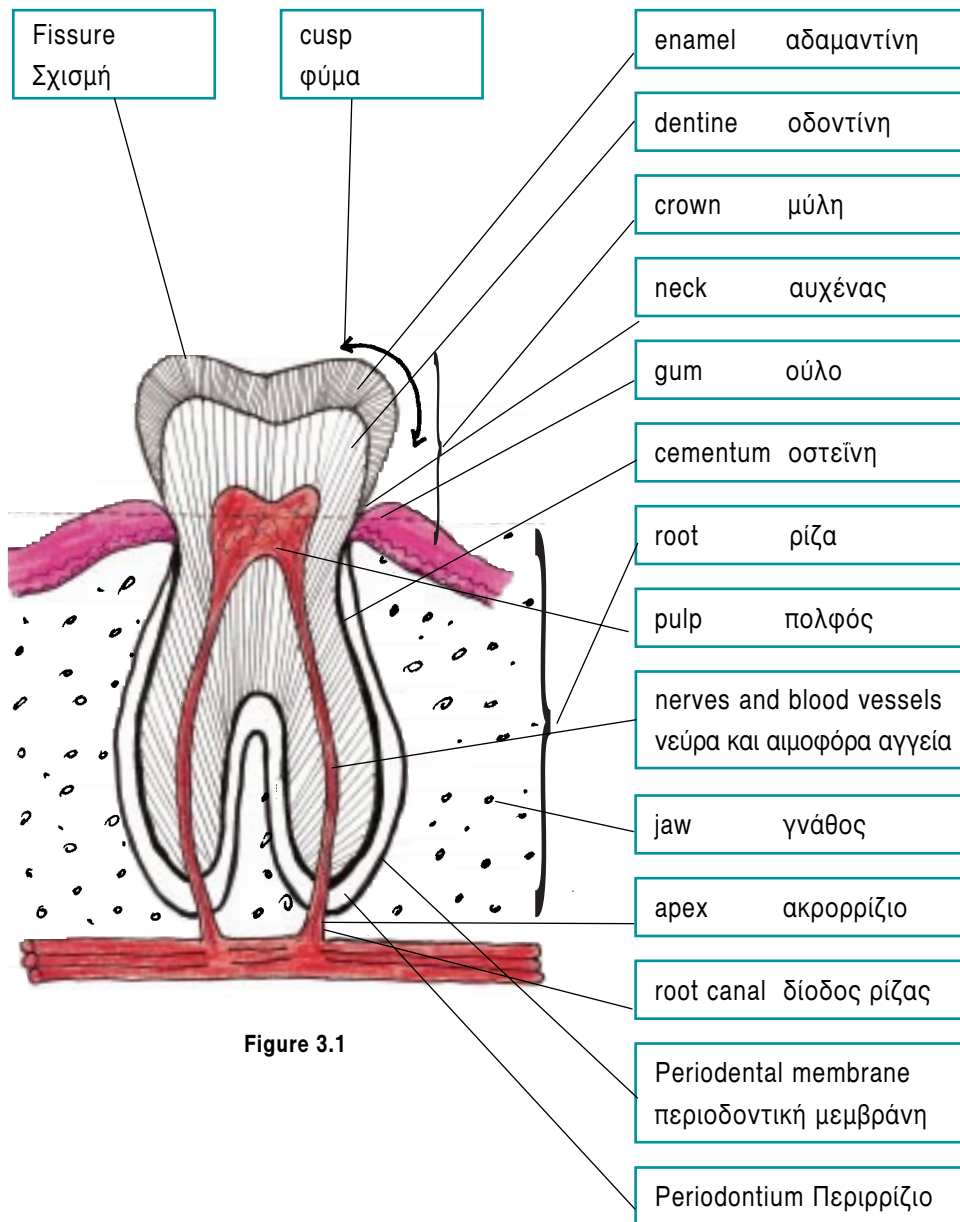


Figure 3.1



B2. How many teeth we have got

Students at TEE may be missing some teeth! Not all our teeth grow at the same time. There are two main stages through which our teeth go. When we are born, we are able to eat only milk. That's why the first set of our teeth is called milk teeth, or primary, or temporary teeth. More formally, this first set of teeth (dentition) is called temporary dentition or deciduous teeth. Deciduous teeth appear (or erupt) at six months after birth, and at two years of age, they develop fully. The dentition of each jaw has ten deciduous teeth. Both jaws have twenty deciduous teeth in total.

Figure 3.2 shows clearly our deciduous teeth of the lower jaw. Our upper jaw has exactly the same kind of teeth, although teeth in our upper jaw erupt later than the teeth in our lower jaw. Teeth are named in the same way internationally so that all dentists and people dealing with teeth do not get confused. Starting from the front and going backwards we name the five teeth on each jaw as follows: A, B, C, D, E.

A: is called CENTRAL INCISOR. It appears at the age of 6 months.

B: is called LATERAL INCISOR. It appears at the age of 8 months.

C: is called CANINE. It appears at the age of 18 months.

D: is called 1ST MOLAR. It appears at the age of 12 months.

E: is called 2ND MOLAR. It appears at the age 24 months.

INCISORS are used for cutting. CANINES are used for crushing.

MOLARS are used for grinding.

Figure 3.3 shows our permanent teeth of the upper jaw and Figure 3.4 of the lower jaw. Permanent Teeth are the second and final set of teeth that we have. Permanent teeth erupt at the age of six. They are completed by the age of 18 to 25 years of age. There are 32 permanent teeth in total. There are 16 teeth in each jaw, eight teeth on each side of a jaw. Teeth on both jaws (upper and lower) have the same names. Starting from the front and going backwards, we name the eight teeth on each jaw as follows: 1,2,3,4,5,6,7,8.

CENTRAL INCISOR: It appears (erupts) at 7 years of age.

LATERAL INCISOR: It appears (erupts) at 8 years of age.

CANINE: It appears (erupts) at 9 years of age.

1ST PREMOLAR: It appears (erupts) at 10 years of age.

2ND PREMOLAR: It appears (erupts) at 11 years of age.

1ST MOLAR: It appears (erupts) at 6 years of age.

2ND MOLAR: It appears (erupts) at 12 years of age.

3RD MOLAR: It appears (erupts) at 18-25 years of age.

PREMOLARS are used for crushing.



DECIDUOUS TEETH

(Νεογιλά Δόντια)

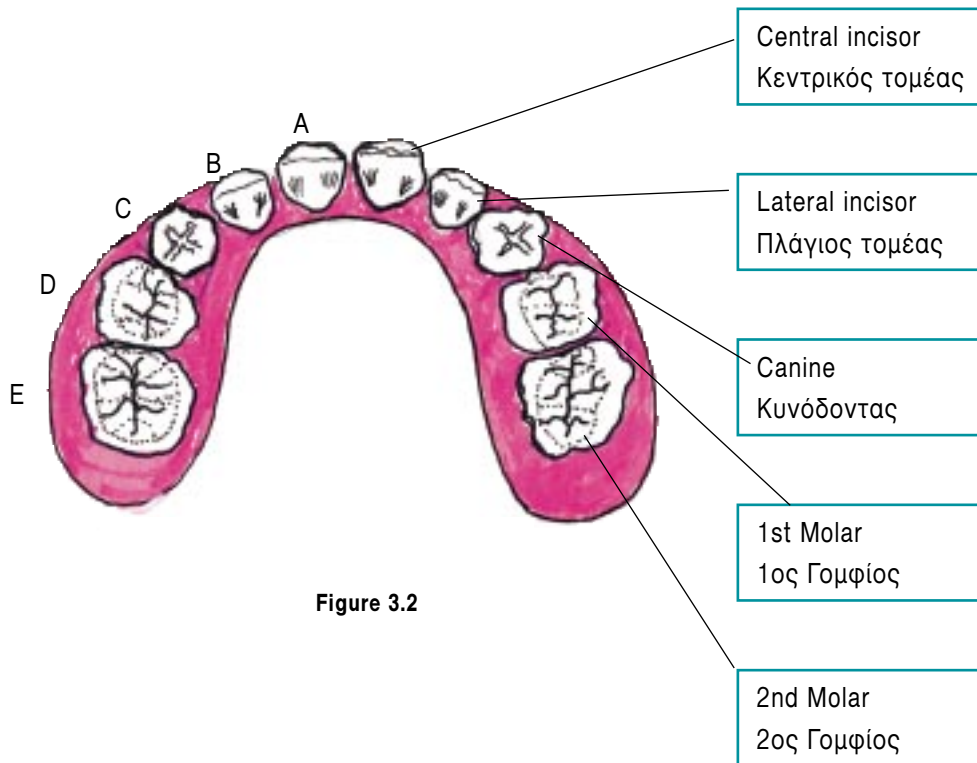


Figure 3.2

- | | |
|---------------------|------------------|
| A. Central incisor: | 6 months of age |
| Κεντρικός τομέας: | 6 μηνών |
| B. Lateral incisor: | 8 months of age |
| Πλάγιος τομέας: | 8 μηνών |
| C. Canine: | 18 months of age |
| Κυνόδοντας: | 18 μηνών |
| D. 1st Molar: | 12 months of age |
| 1ος Γομφίος: | 12 μηνών |
| E. 2nd Molar: | 24 months of age |
| 2ος Γομφίος: | 24 μηνών |

PERMANENT TEETH (Μόνιμα Δόντια)

Upper Jaw (Άνω Γνάθος)

1. Central incisor: 7 years
Κεντρικός τομέας: 7 ετών
2. Lateral incisor: 8 years
Πλάγιος τομέας: 8 ετών
3. Canine: 9 years
Κυνόδοντας: 9 ετών

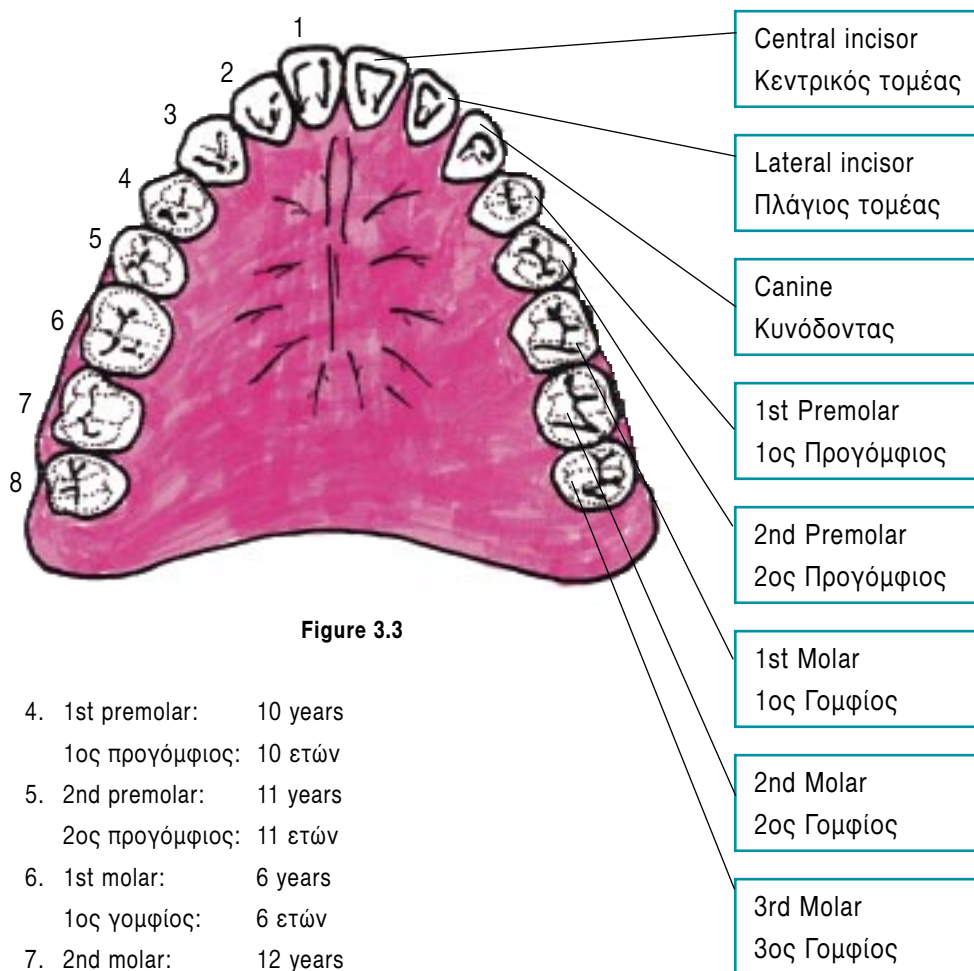


Figure 3.3

4. 1st premolar: 10 years
1ος προγόμφιος: 10 ετών
5. 2nd premolar: 11 years
2ος προγόμφιος: 11 ετών
6. 1st molar: 6 years
1ος γομφίος: 6 ετών
7. 2nd molar: 12 years
2ος γομφίος: 12 ετών
8. 3rd molar: 18-25 years
3ος γομφίος: 18-25 ετών

PERMANENT TEETH (Μόνιμα Δόντια)

Lower Jaw (Κάτω Γνάθος)

1. Central incisor: 7 years
Κεντρικός τομέας: 7 ετών
2. Lateral incisor: 8 years
Πλάγιος τομέας: 8 ετών
3. Canine: 9 years
Κυνόδοντας: 9 ετών

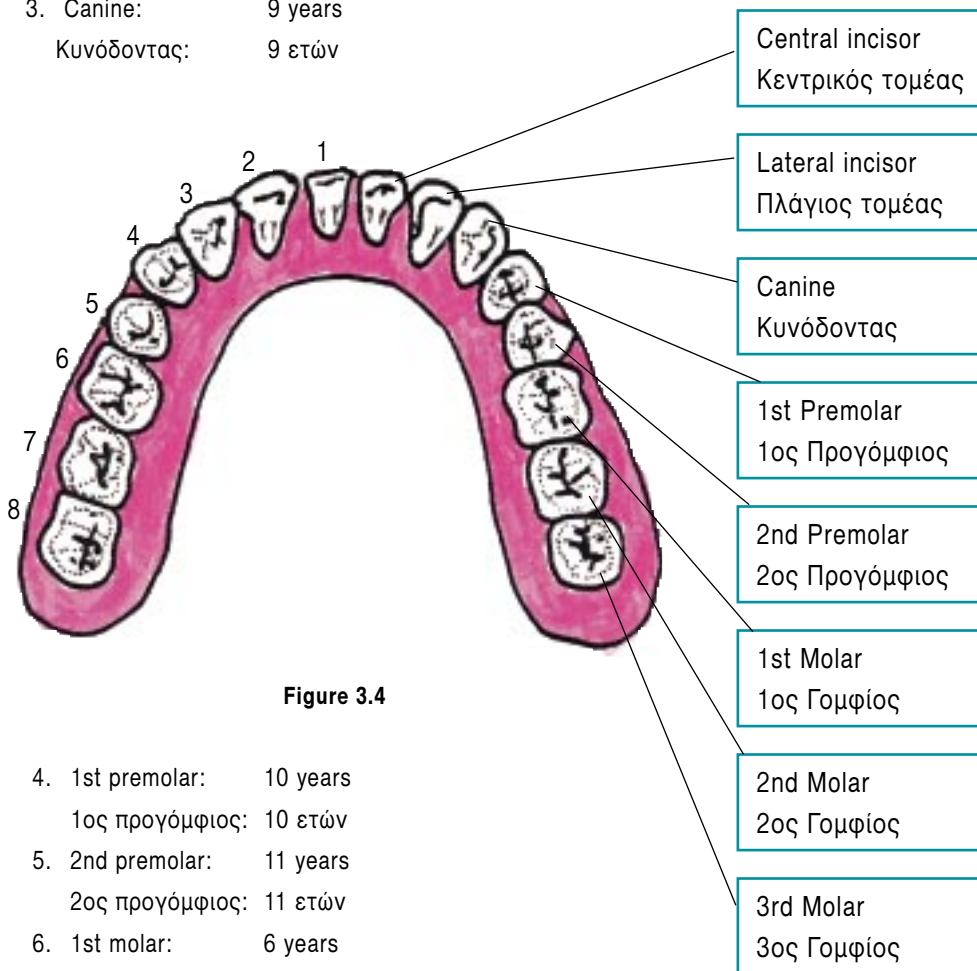


Figure 3.4

4. 1st premolar: 10 years
1ος προγόμφιος: 10 ετών
5. 2nd premolar: 11 years
2ος προγόμφιος: 11 ετών
6. 1st molar: 6 years
1ος γομφίος: 6 ετών
7. 2nd molar: 12 years
2ος γομφίος: 12 ετών
8. 3rd molar: 18-25 years
3ος γομφίος: 18-25 ετών

Task 1 Section: Arts and Crafts Competition**DRAW and SHOW**

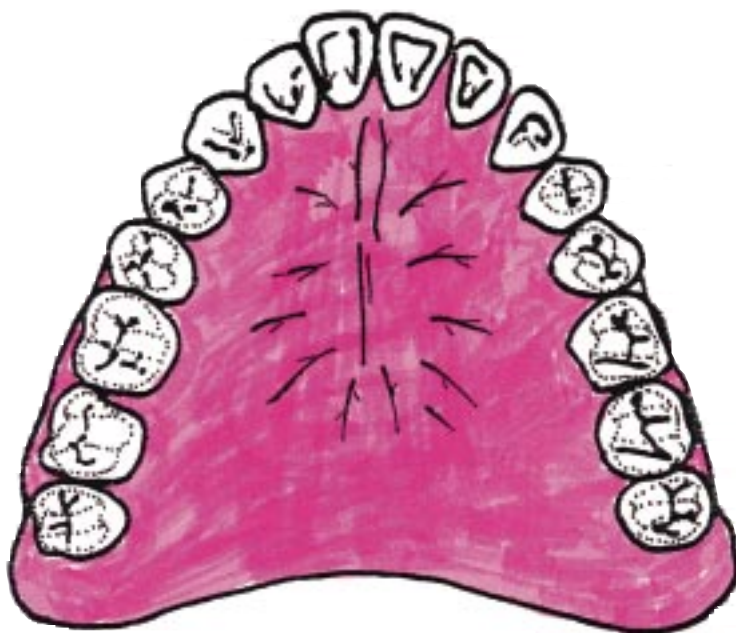
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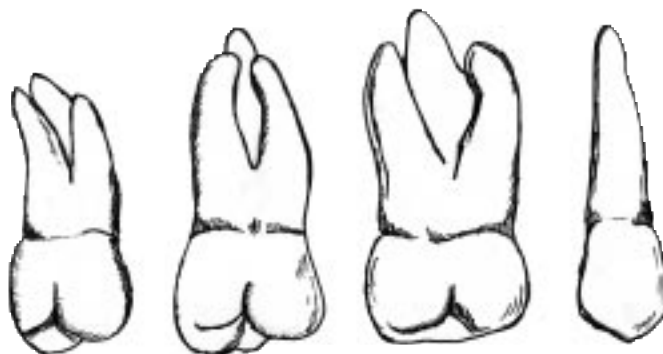
MAKE and DISPLAY

This is an announcement: There is going to be an exhibition with works of art coming from talented dental technician assistants at TEE. Topic: «TEETH STRUCTURE» The best drawing will get the 1st prize. There are two more prizes. If you wish to construct a model tooth or whatever other model, you are free to do so. We are giving you the difficult parts of teeth structure in the pages that follow: 66-67. Also you can work on the pictures that follow underneath. Be as creative as you wish. You can work on your own in pairs or in groups.

Remember: Explanations on tags or captions will have to be both in English and Greek.

Good luck!



Permanent (Μόνιμα)**Upper (Άνω)****Lower (Κάτω)****Figure 3.5**

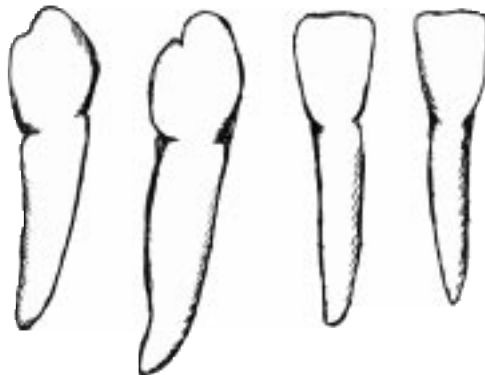
8

7

6

5

3rd Molar
3ος Γομφίος**2nd Molar**
2ος Γομφίος**1st Molar**
1ος Γομφίος**2nd Premolar**
2ος Προγόμφιος

Teeth (Δόντια)**Teeth (Δόντια)****Teeth (Δόντια)****Figure 3.6**

4

1st Premolar
1ος Προγόμφιος

3

Canine
Κυνόδοντας

2

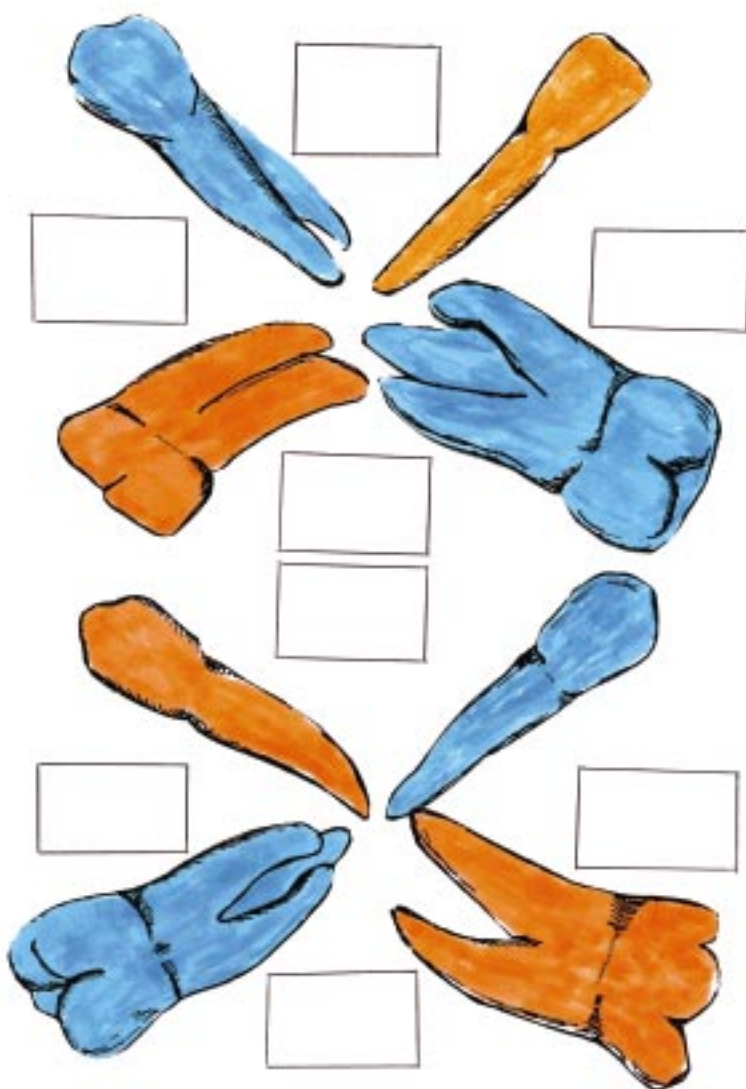
Lateral incisor
Πλάγιος τομέας

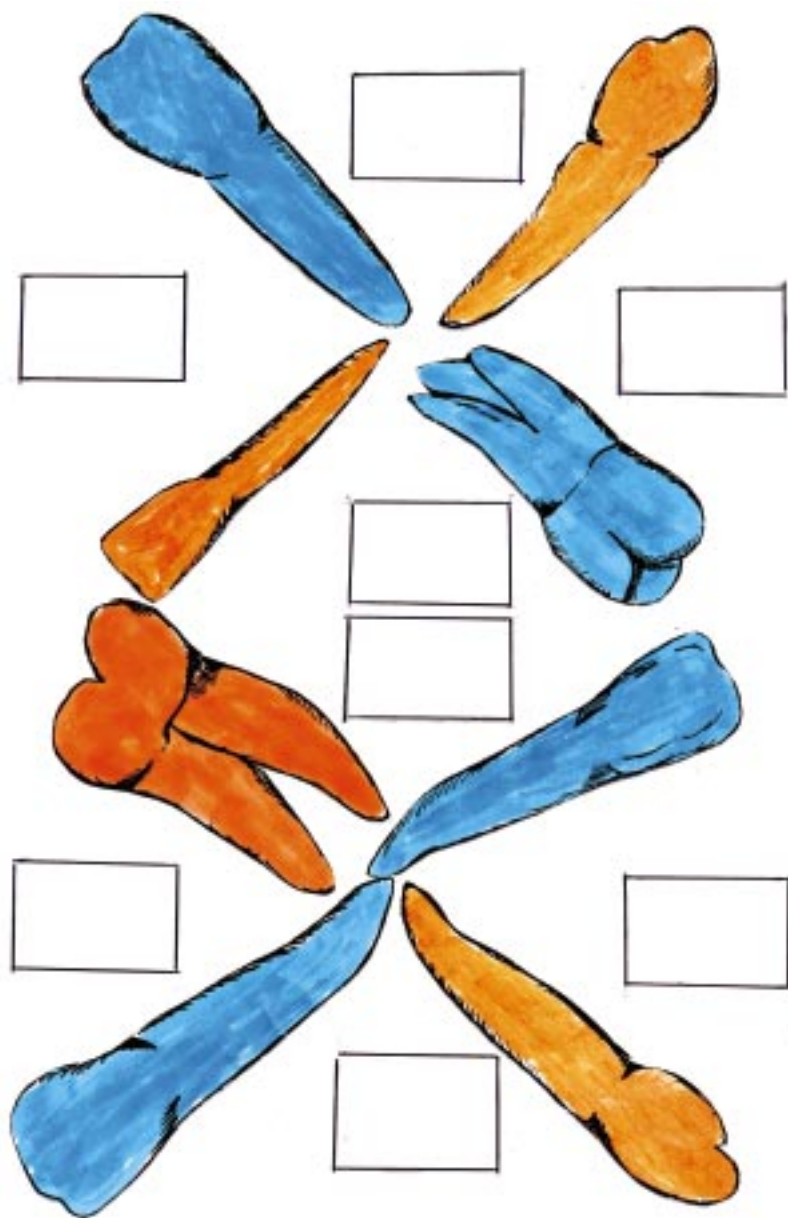
1

Central incisor
Κεντρικός τομέας

Task 2

Peter's mother has asked her dentist friend to collect a set of extracted teeth (16 of them) for her son to study and learn their anatomy. Because Peter is a bit careless he muddled the set up. Can you help him sort the set out? Can you also help him name the teeth correctly in English and Greek and number them like in Figures 3.5, 3.6? Colour will guide you somehow. Orange teeth belong to the lower jaw. Turquoise teeth belong to the upper jaw.





Task 3

Athina has to take an exam on dental anatomy. Because Athina is more interested in becoming an actress or a singer, she came home late and did not study very well. Also, she was absent when her teacher had a class on teeth structure so she missed a lot. There are 20 questions on the exam paper. If she gets 10 of them right, she will pass the test. If she does not, she will fail. You can find her answers in the table below. Mark which of them are correct (put a C) and which of them are wrong (put a W). Then, add your Cs. If Athina gets 9 Cs, she won't pass the test. If she gets 10 or more, she will pass the test. You can work in pairs if you like.

Do not cheat! The teacher has the correct answers and Athina's test in his drawer!

Test 1:

Structure of our Teeth **Date:**

Comment on the words on the left in the space given		30 min	Mark
1. Dentine	It protects the root of a tooth		
2. canal	The one down the river where the cafeteria is		
3. enamel	We put it on our nails. I prefer red enamel		
4. pulp	It is in the centre of a tooth. It has nerves and vessels		
5. fissures	The part from where the nerves and vessels enter		
6. jaws	They are made of spongy bone and support our teeth		
7. gum	The chewing gum I prefer is "Dentine", sugarless		
8. cementum	Builders put it in houses		
9. neck	It is part of the human body		
10. cusp	I am not sure I know this word		
11. crown	The gold a dentist puts on our teeth		
12. periodontal membrane	It is made of plastic and we put teeth in it		
13. apex	That sounds like a famous group of pop singers		
14. root	That's the part of the tooth that's in the jaw		
15. deciduous teeth	These teeth fall when we are children, they don't stay		
16. Permanent teeth	They stay for the rest of our life		
17. Central incisor, when it appears for the first time, and then again	I am not sure. I think it's there before we are born. It appears for a second time at 10		
18. Where does toothache take place?	Everywhere, any time		
19. Number of deciduous teeth	10		
20. Number of permanent teeth	32 (I haven't got all of them)		

Name: Athina Tseliou

Total

Task 4

Athina has failed the test. Can you advise her what to do so that she scores better next time? She is not stupid. She does not like too much pressure and prefers fun. Here are some ways to start your sentences:

1. I think you should
.....
2. If I were you, I'd
.....
3. Why don't you
.....
4. If you want, I can ask
.....
5. Take my advice
.....
6. Have you ever thought about
.....
7. You'd better stoping
.....
8. Athina, wake up
.....

Task 5

There's going to be another exam next month. If Athina studies, she'll pass it. If she passes the exam, her parents will give her money and she'll go on holiday to the islands. Also if she takes her grandma's dog for a walk, her grandma will give her extra money. Notice that if what we say in the "if" sentence is true to reality, then things in the sentence that follows will happen as we expect them to happen. If you speak nicely to me, I will speak nicely to you. The two events are related. If one of them happens, the other one will follow as a result. In the "result" sentence we add "will" or "shall".

Complete either the "if" sentence or the result sentence and make some of your own containing both parts.

1. If you water the flowers,
2. If Peter does not clean his teeth,
3., I'll take my umbrella.
4., we'll miss you.
5. If we don't cross the road carefully,
6., my grandparents will go for a walk.
7., then I'll swim.
8.
9.
10.

C A tooth problem

Task 1

You will listen to a dialogue between two girls, Athina and Lily. Some words are missing from the text below. Try to complete these gaps. You will listen to the dialogue twice.

- LILY: Hello Athina, how is everything?
- ATHINA: So and so.
- LILY: What's wrong? You unhappy.
- ATHINA: Well, there's something wrong with my
- LILY: You mean, you are worried again because they aren't very even.
- ATHINA: Oh no, it's not that it's just that, as I was..... them last night.
- LILY: You know, some ingredients in tooth aren't very healthy.
- ATHINA: Are you serious? I thought there must be some kind of medical checking...
- LILY: Of course, I am. A friend of mine was me
- ATHINA: Anyway, I don't think it's a paste problem.
- LILY: What is it then?
- ATHINA: It's a kind of pain I feel in half of the upper side of my mouth. One moment it's here, the next moment there. One moment I think it's the upper right canine, the other moment I think it's the upper right first
- LILY: You must be under , really.
- ATHINA: Probably, you're right.
- LILY: Just in case there's something wrong, why don't you make an with the dentist Peter's mother works for. He is very good, they say.
- ATHINA: Do you think so? ... Well I guess, I must him this afternoon.
- LILY: Take care, then, See you!
- ATHINA: Bye. See you!

Task 2

After you have completed the gaps in the dialogue, have a look at it. Can you act the dialogue out? Can you be Athina or Lily? Don't panic! Try it! Your classmates can help you with flash cards like these:

What's wrong?

There's something wrong with ...

worried again ...even

ingredients not healthy

medical checking

feel pain

one moment here... there

upper right canine

Why don't you ...?

dentist

Task 3

Athina is absent from school today. You, her classmates, know what's wrong with her. Lily told you. Your teacher asks the class why Athina is not present. You offer to explain. What do you say? Write a paragraph of more than 50 words. Here's some help for you.

**... had a tooth pain ... was worried because ... did not know which
tooth ... perhaps stress ... Lily told Athina ... made an appointment ...**

