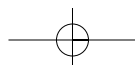
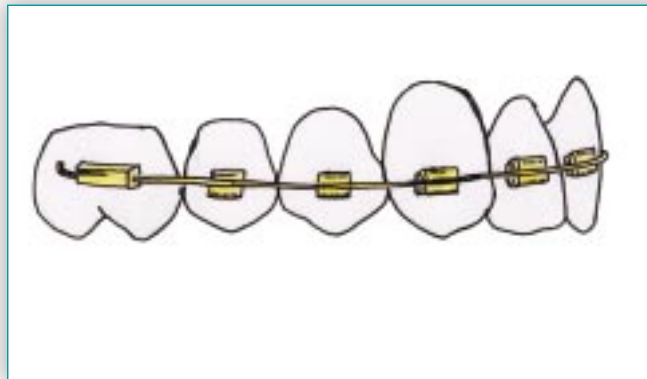
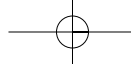


UNIT 7

Orthodontics





A Problems of tooth malfunction and their psychological effects

Today the teacher of Orthodontics in the TEE where Athina, Peter, Lily, Aris and other students go, came into the classroom holding a poster. After greeting them, he stuck the poster with blue-tack on the board and asked his class to read what was on it and comment on the quote. In other words, he asked the class to say whether they agreed or disagreed with the statement made. He also gave them some explanations in Greek for words that could be unfamiliar.

“School children with projecting upper incisors or displaced canines will often be teased unmercifully by their peers because of their appearance and, though some with strong personality may survive this ordeal without psychological injury, many will suffer agonies of non-conformity.”

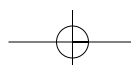
(J.H. Gardiner et al 1998 :3)

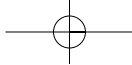
Unfamiliar words

projecting: προεξέχων	survive: επιβιώνω
displaced: μετατοπισμένος	ordeal: δοκιμασία
tease: πειράζω	psychological: ψυχολογικός
unmercifully: χωρίς έλεος	injury: τραύμα
peer: συνομήλικος	suffer: υποφέρω
appearance: εμφάνιση	agony: αγωνία
personality: προσωπικότητα	non-conformity: διαφορετικότητα

Task 1

Read the quote first. Then, fill in the grid below by saying, with a tick, how strongly you agree or disagree with it. After that, ask your partner's opinion, next, the neighbour's in front of you, behind you, at the neighbouring desk. Collect five opinions in total. What does the majority say?





Questionnaire

	A g r e e			D i s a g r e e		
	Very strongly	Strongly	Not so strongly	Very strongly	Strongly	Not so strongly
You						
Student 1						
Student 2						
Student 3						
Student 4						
Total						

Result:

Task 2

Listen to the conversation between the teacher and his class and complete the gaps in it.

ATHINA: May I speak first?

TEACHER: Yes, of course.

ATHINA: I the quote. When I was in primary school, I thought I was the ugliest girl in class because of my uneven teeth.

ARIS: !

ATHINA: You how it feels, if you're not in a problem.

PETER: But then Aris you know how sensitive kids are ... she is when she looks at the situation from that point of view.

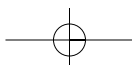
ATHINA: I am. Personally, I that boys are obliged to look pretty as much as girls are!

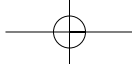
TEACHER: If I could interrupt you Athina ...

ATHINA: Please, do.

TEACHER: I cannot Athina that she wasn't pretty, but she is when she says that her uneven teeth made her look different.

LILY: My sister had projecting teeth but she thought, and we in the family thought, that she looked prettier before she went to a dentist for





orthodontic treatment. I can bring you both her pictures before and after the treatment to see for yourselves !

ARIS: You !

LILY: No, I am not. You are if you think that personality depends on teeth only.

ARIS: That's not what I said. I don't you got my point.

PETER: Hey, sorry to interrupt you. Can I say something?... Well, we that non-conformities affect children, be it teeth or some other irregularity. Right?

ALL:

PETER: So, we are all the quote, but we cannot the point that the way teeth look is the most important influence on character formation. What do you say, sir?

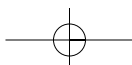
TEACHER: I could not Now, Lily, would you like to bring the pictures of your sister in our next class?

LILY: Yes sir, with pleasure.


Task 3


Have you completed the conversation? Now list all the ways of agreeing and disagreeing. Say who said what. Do you notice anything? How do students express their opinion? How does the teacher express his opinion? Which expression of disagreement/agreement is the most direct? Which is the most polite/indirect?


Person	Agreeing	Person	Disagreeing



Note: The formula we use in agreeing or disagreeing depends on the formality or informality of a situation, the person we speak to, and our relationship with him or her, or them. Here follows a list of ways of agreeing / disagreeing. We start with the most friendly / informal situation to the most formal / indirect case. This list is followed by a list of ways to ask permission (Athina : May I speak first?) and a list of ways to invite people (Teacher : Lily, would you like to ...?).

Formal Informal Friendly		Agreeing	Disagreeing
		<ul style="list-style-type: none"> • Right • OK • Of course • I think so • I am in full agreement • I agree 	<ul style="list-style-type: none"> • Nonsense! • You're wrong • Of course not • I don't think so • I can't agree on that point • I am afraid I don't agree

Formal Informal Friendly		Permission	Giving	
			Permission	Saying No
		<ul style="list-style-type: none"> • Let me go, will you? • Can I take ...? • Is it all right if I ...? • Do you mind if I ...? • Could I possibly...? • May I ...? 	<ul style="list-style-type: none"> • Sure • Go ahead • Yes, of course • Not at all • Please, do • Certainly 	<ul style="list-style-type: none"> • No way! • Can't you do without... • Well, I'd rather you didn't • Could you wait until... • I'm sorry, but... • I am afraid ..

Formal Informal Friendly		Inviting	Inviting	
			Accepting / Refusing	
		<ul style="list-style-type: none">• Come and see us• Are you free tonight to come to ...?• How abouting?• Would you like to ...?• I was wondering if ...• It would be a great pleasure if you could...	<ul style="list-style-type: none">• Thanks, I will• Yes, fine• Great!• That would be lovely• That's very kind of you• I'd like to, very much	<ul style="list-style-type: none">• Sorry, I can't• I can't make it• I'd like to, but• Thanks just the same, but...• I'm sorry, but...• I'd like to, but I'm afraid...

B Orthodontic Treatment: its Aims

Look at the pictures of Lily's sister Lucy, before orthodontic treatment and after it (Figure 7.1, Figure 7.2). Also, look at the pictures of the profile of the way her teeth looked before the dentist treated the irregularity of her teeth, and after their treatment (Figure 7.3, Figure 7.4). It is quite obvious that her teeth are not regular. They do not show the accepted normal relation of the teeth to the other teeth in the opposing arch. To put it another way, her teeth show malocclusion. Restoration of malocclusion, not only in the functional sense but also in the aesthetic sense, is the aim of Orthodontics. What Orthodontics mainly achieves is to help the alveolar bone tissue change and support the teeth in a more convenient position. This treatment requires a lot of care and cannot happen overnight. It sometimes can take years before we can have the results. Patients may find it difficult to co-operate for such a long period.

Teeth in their normal occlusion look well aligned and do not show any crowding. Upper incisors overlap the lower incisors vertically (Figure 7.5) and horizontally (Figure 7.6). The vertical overlap is named overbite and the horizontal overlap is named overjet. When the occlusion is normal the jaws are in a correct vertical and horizontal position to each other and are wide enough to accommodate all our teeth.

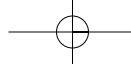
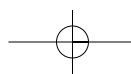


Figure 7.1



Figure 7.2



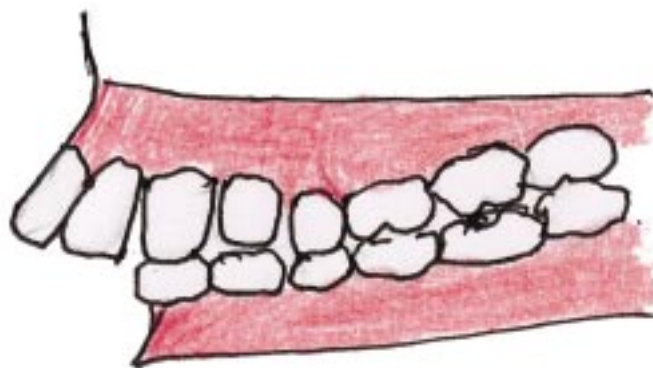
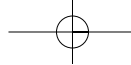


Figure 7.3

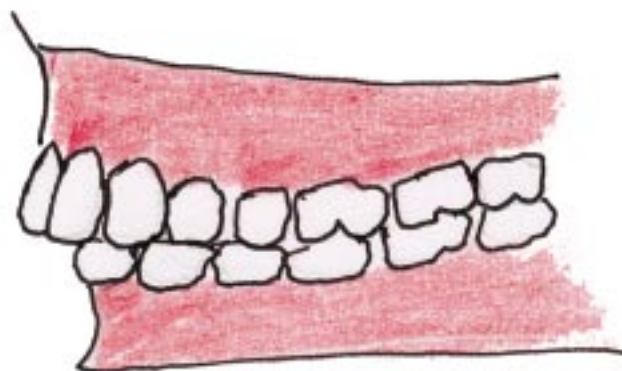
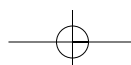


Figure 7.4



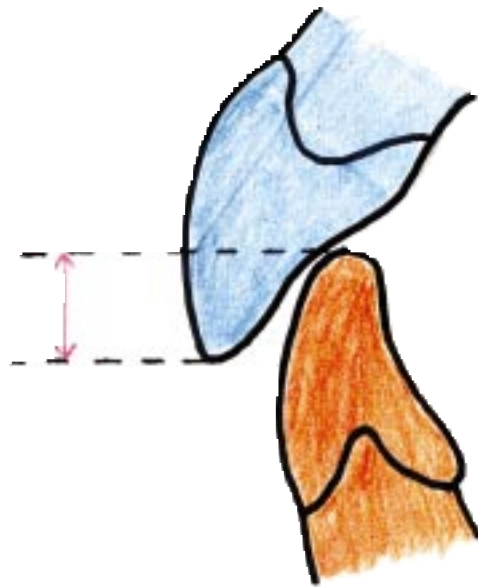
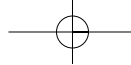


Figure 7.5

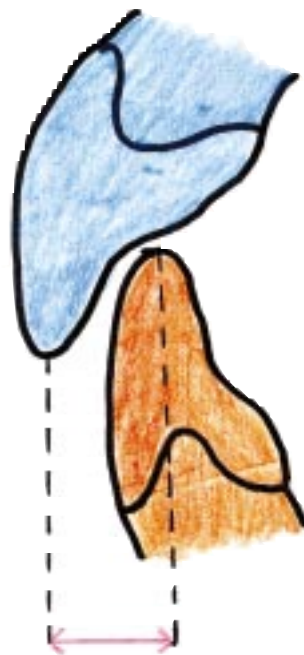
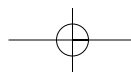
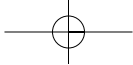


Figure 7.6





Task 1

Prepare 7 questions for your partner to help him or her arrange the information of this passage according to subtopics, and store it in his or her head. We give you 7 clues: malocclusion, types of restoration, how restoration works, time requirements, types of overlap, normal position of teeth, normal position of jaws.

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

C Malocclusion

We asked Peter's mother to inform us on the types and causes of malocclusion. She drew some pictures and wrote some explanations. Somehow, the explanations got mixed up and need to be sorted out, to match the pictures they refer to. The same thing happened with the definitions on different types of malocclusion. Your task is to match them properly. Start with the pictures first and then move to the definitions. Good luck!

Peter's mother explanations

A 'normal' pattern of tooth relation may differ from person to person. An ethnic group may have a 'norm' of tooth relation which is not the one the other ethnic group has. It is not easy to lay down a precise limit after which the term malocclusion can apply. Malocclusion can be simple or it could be complex. Many specialists attempted to introduce a classification of malocclusion which could be generally accepted. In 1899, however, Edward Angle, an American, achieved to describe classes of malocclusion and produced a useful aid in diagnosis and treatment planning of malocclusion.

Let me mention first the main causes of malocclusion and then say a few words about each of them. Pictures will show you Edward Angle's classes of malocclusion (Figures 7.7, 7.8).

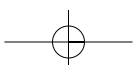




Figure 7.7

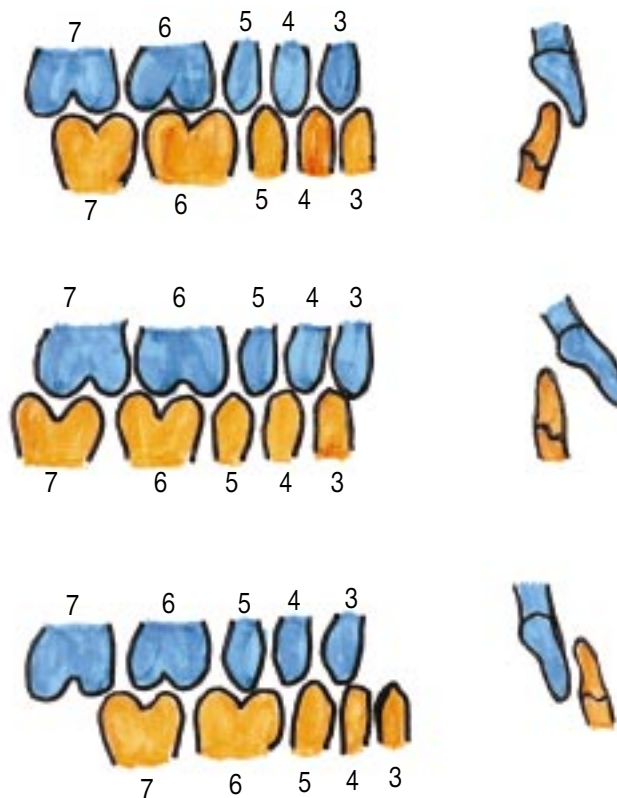


Figure 7.8

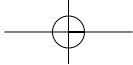
Causes of Malocclusion

- A. Abnormal jaw relationship
- B. Abnormal jaw size
- C. Supernumeracy teeth
- D. Missing teeth
- E. Sucking habits

Task 1

Choose the right title from above with the appropriate explanation, and write it in the box.

1.



Certain teeth, may be totally absent in about 3% of individuals . Upper lateral incisors, third molars, and second premolars are not where they should be. The gap they leave needs to close and orthodontic treatment is necessary.

2.

It is a common phenomenon for young children (50%) to suck thumbs, fingers or dummies. The majority of them abandon this habit by the age of four years. If they continue this habit past this age for a long time, then their front teeth may be displaced and this displacement may result in decreased overbite or increased overjet.

3.

From what I know very few people have jaws which are too large for their teeth. The most common abnormality is when jaws are too small to accommodate all 32 teeth. Only 1% of people in general have too narrow size of jaws which results in crowding of their teeth.

4.

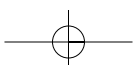
The normal jaw relationship is the one shown in figures 7.5 and 7.6. Sometimes the upper incisors protrude too much, the lower jaw is too far forward, or there may be a state in between when the upper central incisors are tilted backwards.

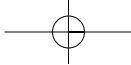
5.

Extra teeth may occur in any part of the mouth. They are conical in shape more frequently, and may have a genetic background. Extra teeth are usually found in the area of upper incisors. They prevent the normal teeth from erupting, cause irregularity and crowding.

Task 2

Description of the classes is given in the boxes below. They are not in the order the pictures appear. You must explain which picture belongs to what description, starting with the **top** picture (Figures 7.7, 7.8), **middle** picture, **bottom** picture.





In this case of abnormal jaw occlusion the lower incisors occlude in front of the upper incisors, the overjet is reversed and the chin appears prominent because the lower jaw is too forward.





Figure  picture

Figure  picture

In this type of occlusion the upper incisors slightly overlap the lower incisors, and there is no problem.

Figure  picture

There are two types of abnormality in this class which is called class 2. Division 1 and Division 2. The upper central incisors tilt backwards. They come in close contact with the lower central incisors. In this way, the overjet decreases and the overbite increases.

Figure  picture

Division 1. Class 2. The upper incisors protrude a lot. In this way, the overjet increases and it traps the lower lip.



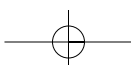
Figure  picture

Figure  picture



Task 3

This is the table of Edward Angles' classification. Fill in the missing letters.

CLASS 1: n _ _ m _ l j _ w rel _ ti _ n _ _ ip.

CLASS 2: DIVISION 1: pr _ _ ru _ ing up _ _ r in _ _ sors.

The over _ _ t is in _ _ eas _ d.

CLASS 2: DIVISION 2: The u _ _ er c _ _ tr _ l incisors are t _ lt _ d backwards.

The o _ _ rj _ t is dec _ _ ased, while the over _ _ te is incr _ _ sed.

CLASS 3: The c _ in is pro _ _ ne _ t. The over _ _ _ is re _ _ r _ ed.

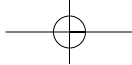
D Orthodontic appliances for the treatment of malocclusion

Dentistry nowadays can work wonders. Almost all cases of malocclusion can be treated. There are delicate appliances and instruments which can help the dental technician and his or her assistant to satisfy all needs of patients.

- a) In cases of supernumeracy teeth, there does not seem to be any other remedy handy than to extract the extra teeth so that the necessary space is provided for the teeth to straighten.
- b) The popular words for orthodontic appliances are springs , plates, and braces. It is easier to move teeth when the patient is young and the cells are still in their active phase of their growth, than when the patient is older.

Orthodontic appliances remodel teeth and can be of two kinds : removable and fixed. Removable Appliances. Most of them are delicate wire springs which fit against the teeth that need treatment. They need careful handling, they should be cleaned carefully and their owners must not fail to keep their appointments with the dentist. Figure 7.9 is a removable appliance. It looks like a partial denture, but it does not have any teeth.

The technique followed to make it is similar to the one for partial dentures. It consists of an acrylic part and springs made of stainless steel wire. This appliance is held in place by clasps. C.P. Adams designed an excellent crib for molars or premolars which has been spread all over the world and is used universally.



Figures 7.10, 7.11, 7.12 show Adam's crib with its modifications especially the Arrow-head Crib or Clasp (Figure 7.12).

Figure 7.10 shows a wire clasp for an upper permanent canine. Figure 7.11 shows a soldered hook for elastic traction.

Delicate jobs like these need special instruments to fit and adjust the wires. Such appliances are the Adams universal pliers, the Adams spring forming pliers, and other wire cutters (Figure 7.13).

Fixed Appliances : Fixed appliances consist mainly of an archwire and orthodontic brackets. An archwire is made of stainless steel. Orthodontic brackets are also made of stainless steel or material coloured like teeth. The archwire, after it bounds the teeth, rests in orthodontic brackets which are attached to the surfaces of teeth. The ends of the archwire fit into buccal tubes welded to orthodontic bands on the first molar. With the help of ligature wire and the brass pins, the archwire is attached to the brackets. In Figure 7.14 we can see the archwire with its brackets and an edgewise orthodontic bracket. We can also see its side view. Delicate instruments like the ones in removable appliances are used too. Figure 7.15 shows the most important of them. They are a) ligature cutters, b) Howe pliers, c) molar band remover, d) Mitchell trimmer, e) band driver, and f) band pusher. Fixed appliances need extra care because they are difficult in cleaning and can be easily damaged. They are very rapid in action and very effective.

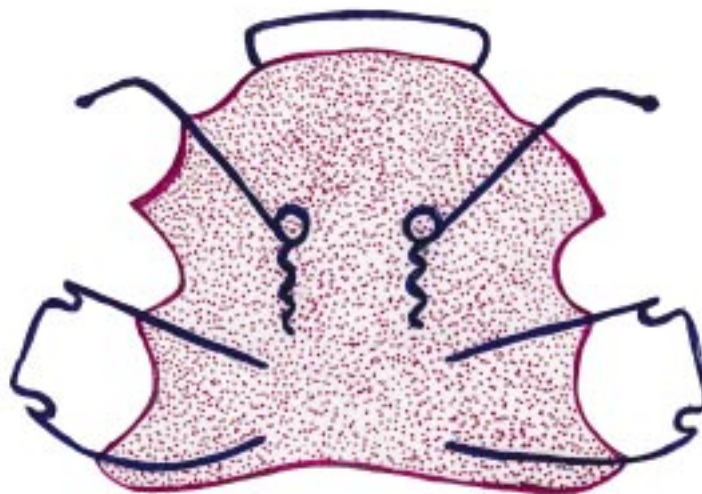
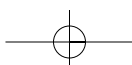


Figure 7.9



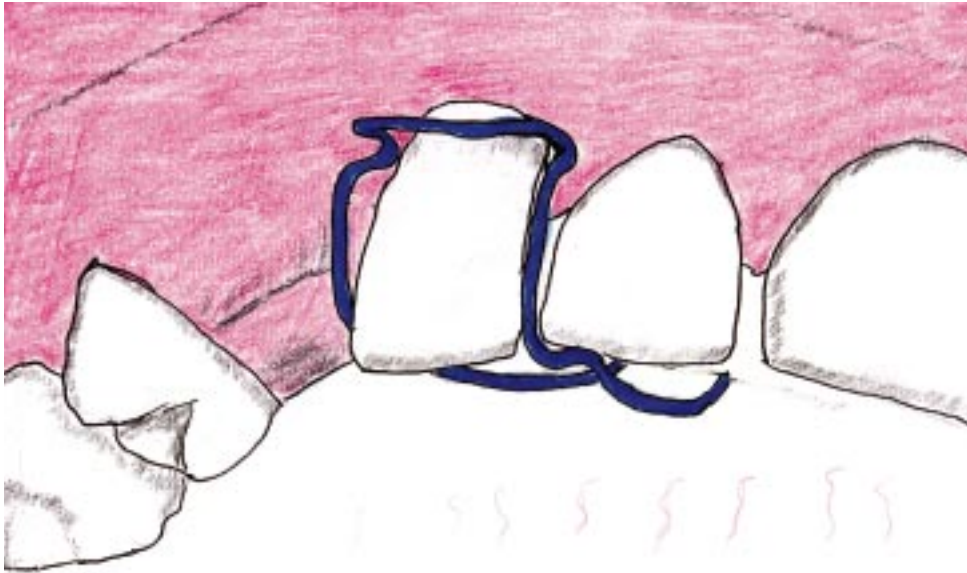
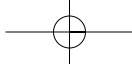


Figure 7.10

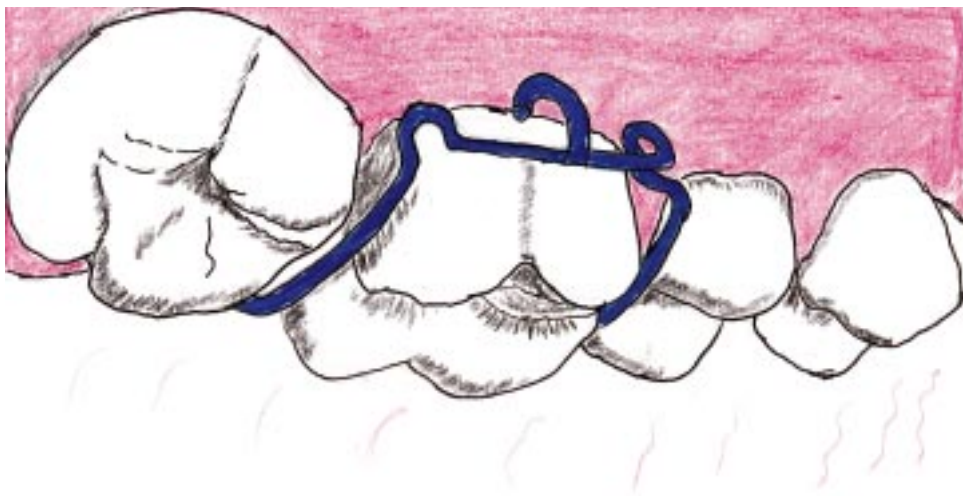
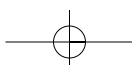


Figure 7.11



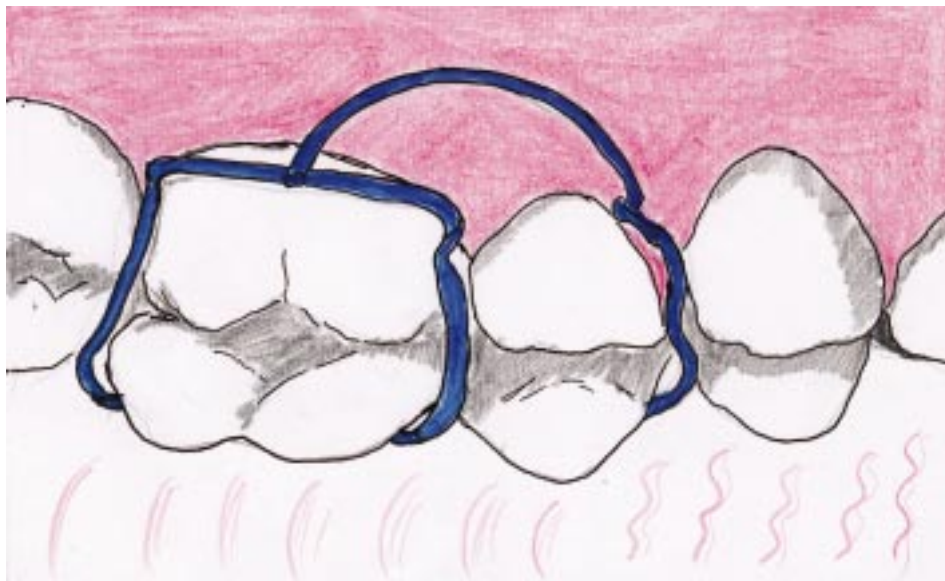
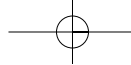


Figure 7.12

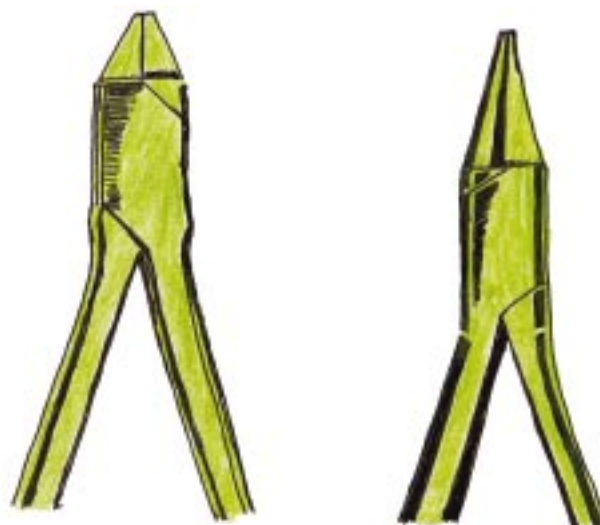
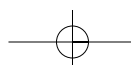


Figure 7.13



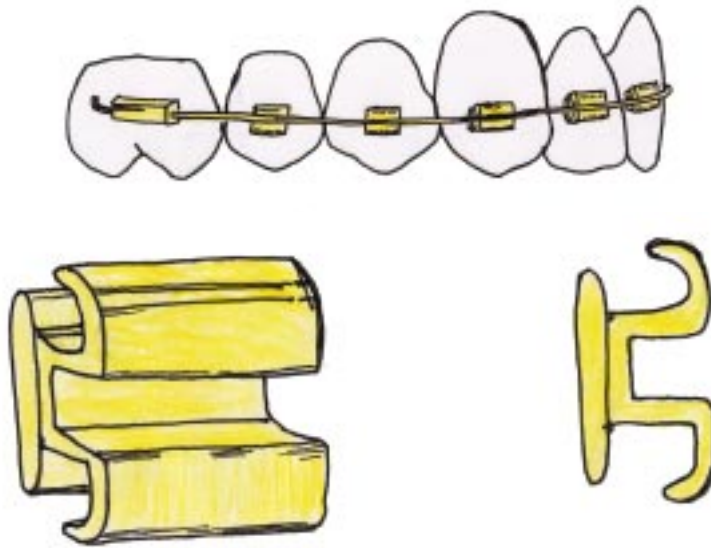


Figure 7.14

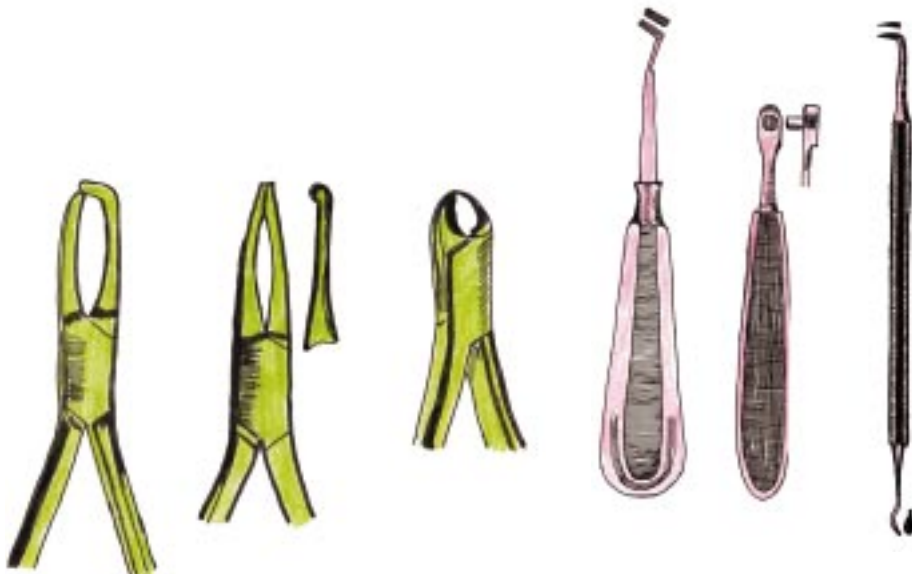
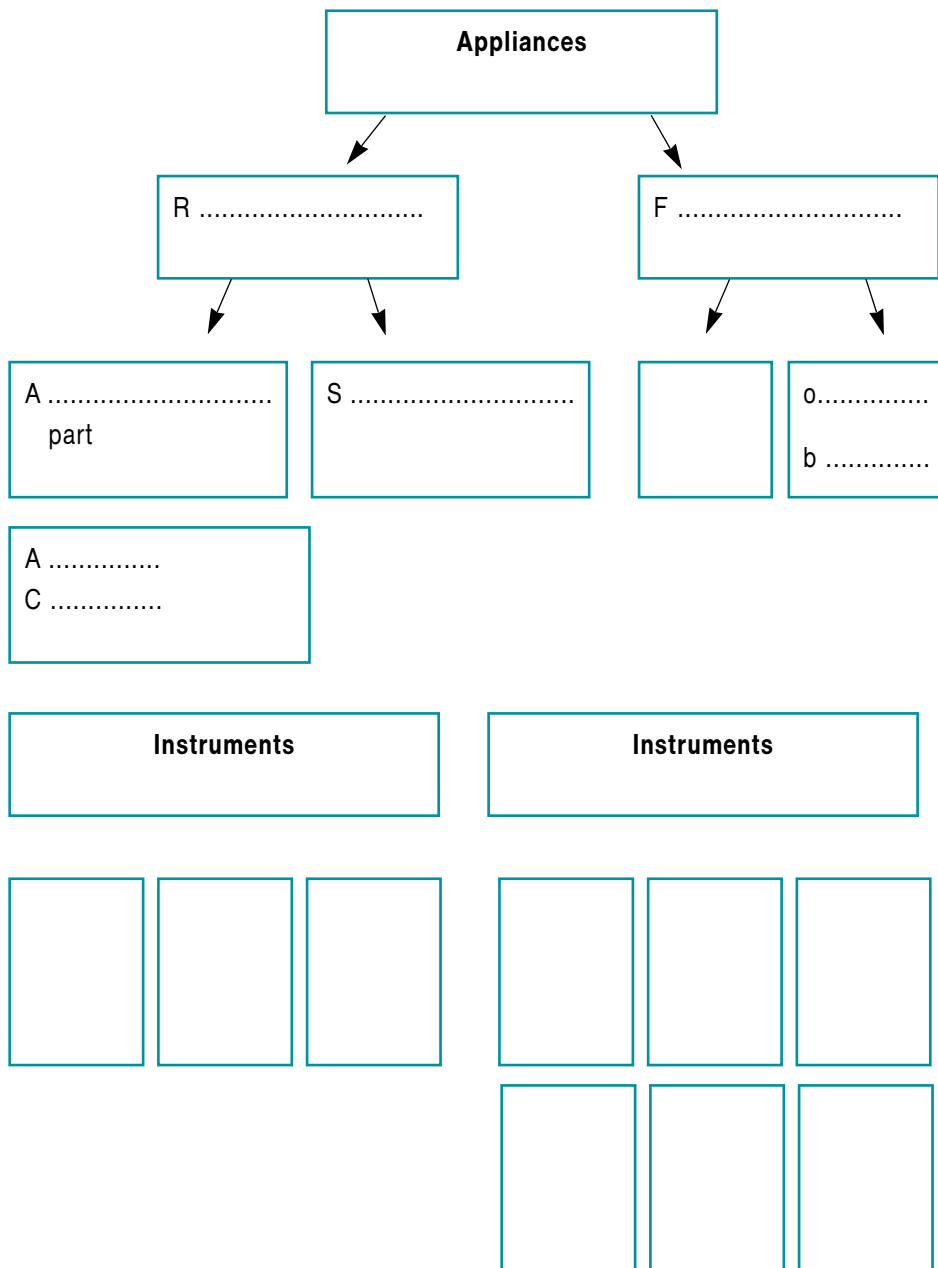


Figure 7.15

Task 1

Read the text again and complete the diagram. Some help is given to you.

Orthodontic Treatment of Malocclusion

Time for fun

Task 2

This crossword puzzle is a bit different. Some words form pairs like Adam's crib. What you have to do is to write the missing pair in the boxes of the crossword. All pairs come from the text "Orthodontic appliances for the treatment of malocclusion". The first letter of the second word of the pair has been completed for you.

orthodontic	t											
orthodontic	a											
supernumeracy	t											
removable	a											
stainless	s											
arrowhead	c											
universal	p											
wire	c											
orthodontic	b											
buccal	t											
orthodontic	b											
ligature	w											
brass	p											
ligature	c											
Howe	p											
molarband	r											
Mitchell	t											
band	d											
band	p											

