

Student Study and Self-Test Guide  
*for*

# DENTAL ANATOMY

*Ninth Edition*



**TEACHING RESEARCH**

A Division of

**The Oregon State System of Higher Education**

**Student Study and Self-Test Guide**

*for*

**DENTAL  
ANATOMY**

*Ninth Edition*

**TEACHING RESEARCH**

A Division of  
The Oregon State System of Higher Education



**APPLETON-CENTURY-CROFTS/Norwalk, Connecticut**

Copyright © 1982 by APPLETON-CENTURY-CROFTS  
A Publishing Division of Prentice-Hall, Inc.

All rights reserved. This book, or any parts thereof,  
may not be used or reproduced in any manner without  
written permission. For information, address  
Appleton-Century-Crofts, 25 Van Zant Street,  
East Norwalk, Conn. 06855

82 83 84 85 86 / 10 9 8 7 6 5 4 3 2 1

Prentice-Hall International, Inc., London  
Prentice-Hall of Australia, Pty. Ltd., Sydney  
Prentice-Hall of India Private Limited, New Delhi  
Prentice-Hall of Japan, Inc., Tokyo  
Prentice-Hall of Southeast Asia (Pte.) Ltd., Singapore  
Whitehall Books Ltd., Wellington, New Zealand  
Editora Prentice-Hall do Brasil Ltda., Rio de Janeiro

ISBN: 0-8385-1568-1

Text design: Gloria Moyer  
Cover design: Lynn Luchetti  
Production: Kathleen Tierney

PRINTED IN THE UNITED STATES OF AMERICA

**Student Study and Self-Test Guide**

*for*

**DENTAL  
ANATOMY**

## A GUIDE TO YOUR STUDENT GUIDE

This student guide for *Dental Anatomy: A Self-Instructional Program* will help you to learn more effectively, saving you time while increasing your knowledge. We recommend that you consult this guide (1) before you begin reading the text, (2) after finishing each chapter, (3) while you review, and (4) prior to taking exams in your dental anatomy class.

The *Student Study and Self-Test Guide* is divided into four parts:

1. Part I describes the mechanics of using the text, the embedded questions, a “mask”, and the review tests. This part provides an overview and should be read before beginning your study of the text.
2. Part II reveals some sound study advice which, if followed, will not only improve your learning but also help you to progress more quickly. Read this section just before you begin studying *Dental Anatomy: A Self-Instructional Program*.
3. Part III is a valuable review just before taking exams in class. Use the summaries of each tooth contained in this section as you would use “flash cards” to help you learn the distinguishing characteristics of each tooth.
4. Part IV may be used in two different ways. First, you may take the self-tests after studying each of the chapters. This will help you assess how well you have studied. Second, you may use these self-tests to prepare for a classroom test. Both ways of using this section will give you the review practice you may want. Mark your answers on another sheet rather than on the tests so that you can reuse the tests. There are practice tests for each of the five chapters, the Universal Coding System, and overall for the entire text. In addition, you can interpret your test score in light of how other students scored on the same test.

We advise you not to read this guide from cover to cover. Instead, you should select those parts which will meet your needs and study them. In doing so, you will find that your learning of dental anatomy will be both efficient and effective.

# CONTENTS

<b>PART I</b>	<b>HOW TO USE THE DENTAL ANATOMY PROGRAM</b> .....	1
	1. Answering the Embedded Questions.....	1
	2. How to Use a Mask .....	1
	3. How to Use the Tests at the End of Each Section .....	2
	4. Supplementary Aids .....	2
<b>PART II</b>	<b>SOME SUGGESTIONS FOR IMPROVING STUDY METHODS</b> .....	3
	1. Introduction .....	3
	2. Summary of Study Method Principles.....	3
	3. References to Other Books on Study Methods.....	5
	4. Quiz .....	5
<b>PART III</b>	<b>REVIEW SECTIONS: REVIEWING <i>DENTAL ANATOMY</i></b> .....	7
	1. Introduction .....	7
	2. A Guide to Matrix and Review Tests .....	7
	3. A Review of Each Tooth: Dental Anatomy Flash Cards .....	14
<b>PART IV</b>	<b>SELF-TESTS</b> .....	33
	1. Introduction .....	33
	2. How to Use the Self-Scoring Method .....	35
	3. How to Succeed in Dental Anatomy with Trying: The Use of the Diagnostic Testing Program .....	35
	4. When in Doubt, Punt: Factors Underlying Poor Test Performance .....	37
	Chapter 1 Test .....	38
	Test for the Universal Coding System.....	42
	Chapter 2 Test .....	45
	Chapter 3 Test .....	48
	Chapter 4 Test .....	52
	Chapter 5 Test .....	56
	Overall Achievement Test (Chapters 1–5) .....	59
	Answer Sheets .....	67
	Answer Keys .....	74

## PART I

### How You Use the *Dental Anatomy* Program

#### 1. ANSWERING THE EMBEDDED QUESTIONS

Take a minute now to leaf through the *Dental Anatomy* program if you have not already done so. You will see that the program consists of segments of printed material that include “embedded” questions or sentences that require a fill-in answer. Segments of printed material are separated by black lines. The answers to the embedded questions are given below the black line in italics (or on the top of the next page if a question appears at the bottom of the previous page).

This text is a form of programmed instruction. It is designed to help you learn the material by organizing and breaking the subject matter down into segments. Whenever a new word or a new concept is introduced it appears in boldface print, is explained, and then a question is asked about it. Research has shown that if you consistently read the material and diligently try to answer the questions before looking at the answers provided, you will learn more than by simply reading all of the material as you would a normal textbook. Learning *Dental Anatomy* for the first time is somewhat like learning a foreign language, and it takes a lot of practice in using the words that you are learning for the first time. Completing questions throughout the text is one way for you to practice using the words that you need to learn.

Whether you are learning to play golf, throw a frisbee, fly a kite, or use *Dental Anatomy* terms properly, nothing beats practice. You could read about these *Dental Anatomy* terms, but you will learn best by using them. Think of the embedded questions in the *Dental Anatomy* text as your instructor who is helping you practice by asking you questions about the terminology and concepts you are learning.

#### 2. HOW TO USE A MASK

1. A 5 × 7 inch card will be needed to best use this programmed text. This card will serve as a “mask” to shield the answers to the questions that are embedded in the program.
2. Hold the card in one hand and use it to cover up the answers to the fill-in questions that make up the program. Fill-in questions in this program appear in nearly every “frame.” Frames are separated by black lines. Answers to the fill-in questions are printed below each frame or at the top of the next page.
3. Move the card down each page until you can read a frame and its questions but are still shielding the answer to those questions.

Using the card in this way helps to prevent you from just reading both the questions and their answers. Significant learning will take place only if you use the mask and respond to each question before reading the printed answer. (It is not necessary to write your response in the book: just “say it to yourself.”)

We have tried to make some of the questions fun to help to make the task more interesting. Also, the program is divided into sections that you can use to break up your study into shorter periods to reduce fatigue.

### *3. HOW TO USE THE TESTS AT THE END OF EACH SECTION*

At the end of each section you will see that there are review tests. These tests are placed toward the end of each section to help you summarize and review the material presented in that section. In addition there are “matrix tests” that will help you summarize and review the material presented. The review tests and matrix tests will help you check your progress. They will help you decide whether to go on to a new section or to restudy a section again.

The review tests are self-scoring. You will be directed to take a short break if you pass the test with 100%. Research has shown that taking regular breaks will help to reduce the fatigue of studying and will make studying more effective and pleasurable. This is explained more fully in Part II of this study and self-test guide.

### *4. SUPPLEMENTARY AIDS*

Find out if your school has models of teeth or examples of extracted teeth that you can use as a supplement to the text. Many students find that three-dimensional objects such as tooth models or extracted teeth make the illustrations and concepts presented in the texts clearer. You might want to have the appropriate tooth models available at your study location so that you can pick them up, touch them, turn them, and examine them more closely as you read the text.



## PART II

### Some Suggestions for Improving Study Methods

#### 1. INTRODUCTION

Research on the study methods of college students is helping us understand what the good student does differently from students who have study problems. In this section of the *Study Study and Self-Test Guide* we try to pass along some of these findings to you. Our goal is to help you use the *Dental Anatomy* program more effectively. Because the program is self-instructional, you, the student, will have the major responsibility for actually learning the material it presents. You will need to be equipped with some good study methods and habits. It is you, working on your own, that will determine the success of this program, and we hope that the study methods we suggest will help you be successful.

#### 2. SUMMARY OF STUDY METHOD PRINCIPLES

- a. *One Study Area Without Distractions.* Design a room or section of a room to use mainly for studying. When you sit down to read the *Dental Anatomy* program, remove any other study materials, books, or distractions from the area. For example, be sure to take down or cover up any of those centerfolds from your favorite magazine. This will help you concentrate on the task of studying. Research has shown that a specific study area without distractions has stimulus characteristics that you will begin to associate with studying. When you sit down and glance around you will think of studying, and you will find that you are able to *start* studying more easily.
- b. *Make a Contract to Give Yourself a Reinforcer Immediately After Studying.* A reinforcer for studying is any thing or activity that makes it more likely that you will study again in the future. It is something you really like. In fact, you probably like it a lot more than studying. But that's OK; use it to your advantage by agreeing to finish your studying first, before you give yourself the reinforcer. For example, you might say to yourself, "If I finish this chapter and answer five of the study questions correctly, I'll play my guitar." But *don't* say, "Oh, I'll play my guitar for awhile, and then study." If you do that, you might never get around to studying. Research shows that consistently doing something you like immediately *after* you have made some real study progress will help you learn more efficiently.
- c. *Select Reinforcers That Are Available.* Since you must use your reinforcer immediately after you study, it cannot be something you might get from a mail order or from across town (although *placing* the order or traveling across town might be exciting and reinforcing). In other words, don't use something too expensive or too difficult to obtain as a reinforcer. Use simple things that are familiar to you, like something to eat or drink, something to enjoy reading, a stroll around the block, a talk on the phone, or transcendental meditation. It might be something you keep in your desk drawer, in the next room, or, yes, in the refrigerator.

- d. *Make a List of Your Reinforcers.* Make a list of all those great things you like and keep it hidden in your study area to be read *after* you finish your work.
- e. *Break Your Work into Units.* Divide your reading, writing, and other assignments into units. Start with small units at the beginning of a course and increase them as you can tolerate longer sessions. The *Dental Anatomy* program is divided into sections for you. You might begin by completing only one section (taking 20 minutes to 1 hour) during one study session. Later you might want to complete two sections at a time. Only by defining these units of study will you be able to make a specific contract with yourself. For example you might say to yourself, “I’ll take a walk after I finish section 5 and complete the review test.” *Don’t* say, “I’ll take a walk after I study for awhile.” That will not be specific enough—you won’t know when you have finished.
- f. *Don’t Strain Your Ratio of Reinforcement to Work.* By breaking your studying into manageable units you should prevent yourself from slaving long hours without a break. Cramming all night before an exam is usually an example of straining your ratio. Cramming will tend to make you dislike studying and diminish your desire to study in the future. Take note, for example, of how much you avoid studying for a long time after you have to cram. Marking charts, graphs, or other records of units of work that you accomplish as you go along may help you to plot your progress and prevent you from getting behind in your work.
- g. *Remove Reinforcers for Noncompletion of Work.* When you make a contract to finish your study unit before using your reinforcer, be sure to stick by it. If you don’t complete your work because of an interruption or for any other reason, don’t use your reinforcer. If you do, you will reinforce noncompletion rather than completion of work. Also, denying yourself a promised reinforcer is a mild punishment you can use to discipline yourself. For example, if you planned to hop in a pool for some swimming after completing two units, and you daydreamed too long instead and had to stop, don’t go swimming. Learning self-discipline means being consistent and firm with yourself.
- h. *Use Study Questions.* Answering questions on your reading will help you learn. This is related to the fact that people seem to remember more what they do than what they hear or see. That is, you learn best by being active, not passive, as you learn. This is why the *Dental Anatomy* program is filled with questions and tests. These will help you to find out what parts of dental anatomy you really understand and can remember. If you just read the text, it may be easy to assume that you know all the facts that have been presented—a very common assumption that all of us seem to make when we read.
- i. *Use Questions Instead of Notetaking or Underlining.* There are some common study habits that can actually interfere with learning. Notetaking and underlining while reading are common examples. They require relatively little thinking and they don’t help to jog your memory. What is worse, they make you feel like you’re doing something significant and helpful (because you probably learn something minimal from them). If your notes are slightly inaccurate or if you never have enough time to go back and study notes or underlining, these habits will hinder more than help your learning. Only by writing a summary, an outline, or answers to questions after reading do you really test your memory or understanding of what you have read.

*A final note:* Some of the study methods discussed here have been known for a long time. The problem has been that they take extra effort on the part of the student, and

self-discipline in studying is difficult to achieve by will power alone. It's hard just to tell yourself (or have someone else tell you) to change your study habits. You'll have to practice new methods. This is where the use of reinforcers becomes important.

Reinforcers are easy to use and effective. You can use them to help you form new study habits such as answering study questions. Choose some good ones, try them, and you'll see what we mean. Good luck!

### 3. REFERENCES TO OTHER BOOKS ON STUDY METHODS

Murdock, E. S. *Self-management: A guide to more effective study*. 1971, paperback, 86 pp. Obtain from Individual Learning Systems, Inc., P.O. Box 3388, San Rafael, California 94902.

This little handbook describes methods for managing your study efforts through study contracting and progress plotting. In study contracting, you make an agreement with yourself to complete units of study. If you complete them, you do a rewarding activity you have specified. Suggestions are given for analyzing course requirements into units, keeping daily study records (progress plotting), and making good study contracts.

Robinson, F. P. *Effective study*. New York: Harper & Row, 1961.

A classic book first published in 1946. Explains a method for effective reading called SQ3R—survey, question, read, review, and recite. This is a highly regarded method for improving your learning from written material. In SQ3R you first skim over a text, then ask yourself questions about what the text covers, based on chapter headings, etc. After reading, you review and then put the text aside to answer questions from memory about what you have read. This method would need to be supplemented by some type of reinforcement procedure such as study contracting to help the student *maintain* this new type of study behavior.

Carman, R. A., and Adams, W. R., Jr. *Study skills: A student's guide for survival*. New York: Wiley, 1972, paperback, 256 pp.

This programmed guide explains how to use the SQ3R reading system. Also, it discusses effective listening, vocabulary development, writing papers, and taking exams. The methods here would probably need to be supplemented by study contracting.

### 4. QUIZ

For each item below indicate by a checkmark (✓) whether the student described has done a good or bad job of applying the study principles discussed in Part II of this guide. (Answers follow immediately.)

#### Good Bad

- — a. Melvin Molar studies on the bus every morning on his way to the campus and then studies in the school cafeteria for his anatomy course.
- — b. Peri Odontal makes a contract with himself to read five pages and answer five study questions after playing handball for 45 minutes.
- — c. Ginny Gingiva kept a copy of *Ms.* magazine in her study desk and read parts of it after completing review tests in her *Dental Anatomy* text.
- — d. A. P. "Cal" Foramen is listed in *Guinness' Book of Records* as having studied continuously for 6 days and 11 hours without a break (he ate at his study desk while he studied).

- — e. Dee Astema had her roommate hold her weekly spending money and had her roommate give it to her 1 dollar at a time in return for sheets of completed study questions. If Dee missed her daily deadline of one sheet of questions, her roommate did not give her a dollar that day.
- — f. C. E. Junction read a book on how to manage a dental practice and then made a detailed plan for setting up a practice in his hometown, using the guidelines from the book.

### *Answers*

- a. *Bad.* Melvin studied in more than one distracting environment.
- b. *Bad.* Peri was specific in his study contract, but he should have studied *before* playing handball.
- c. *Good.* Ginny picked a reinforcer that was immediately available and use it after completing a unit of study.
- d. *Bad.* And “Cal” hasn’t studied since.
- e. *Good.* Excellent use of someone else to control reinforcers to help Dee meet her deadlines. Examples of removing reinforcers for noncompletion of work.
- f. *Good.* C. E. was *active* in applying what he read to a real-life problem *after* he read the book to test his understanding.

## **PART III**

### Review Section: Reviewing *Dental Anatomy*

#### *1. INTRODUCTION*

We could have provided you with a fifty-page written summary of *Dental Anatomy*—a neat single-spaced pack of prose, perhaps with some diagrams. But we know from research on learning that you will learn and retain less by reading summaries and looking at diagrams than from answering questions or in some way doing something more active. For this reason, we have constructed some sample review exercises and questions for the program. When used in conjunction with the self-tests in Part IV of this guide and the existing matrix and criterion tests already in the self-instructional program, a nearly complete review system is available to you. You make it complete by really answering the questions and, in some areas that you have difficulty with, perhaps constructing more of your own questions to practice with.

#### *2. A GUIDE TO MATRIX AND REVIEW TESTS*

One method of reviewing will be to go through the volumes and retake selected matrix tests and review tests. You will be surprised by the number of facts you will have forgotten when you retake these tests. Each of these tests will direct you back to specific pages for review in the text. Below are the page numbers and a brief description of each of these tests.

### **CHAPTER 1: Introduction to Dental Anatomy**

Review Test 1, page 9. Tooth names and form, clinical vs. anatomical crown, number of molars, teeth with wedge-shaped crowns.

Review Test 2, page 26. Arch names; facial, lingual, labial, buccal, mesial, distal, and occlusal surfaces; universal coding system.

Review Test 3, page 36. Alveolus, teeth with bifurcated roots, root trunk, trifurcated roots, longitudinal sections.

Review Test 4, page 46. Definitions of pulp anatomy terms, e.g., aberrant canal, orifice.

Review Test 5, page 66. Supporting structures, cementum, papillary tissue, gingival sulcus, ameloblasts, dentin.

Review Test 6, page 81. Life history of teeth, lobes, calcification, cusp of Carabelli, developmental grooves, eruption sequence, development, active eruption.

Matrix Test 1, page 94. Interdental area, proximal contact areas, embrasures.

Review Test 7, page 95. Interdental area, proximal contact area, common occlusion, Angle's classes of occlusion.

Matrix Test 2, page 111. Location of facial and lingual heights of contour.  
Review Test 8, page 113. Tipping of the molars, mesial and distal heights of contour, location of proximal contacts, facial and lingual embrasures.

## **CHAPTER 2: Permanent Anterior Teeth**

Matrix Test 1, page 124. Comparison of the mesial and distal of the maxillary central incisor, facial view.

Review Test 1, page 130. Maxillary central incisor: line angles, mamelons, lobes, anatomy of lingual surface.

Matrix Test 2, page 145. Comparison of maxillary central and lateral incisors.

Review Test 2, page 146. Maxillary incisors: lingual pit and ridges, line angles, cervical lines, height of contour, incisal angles, proximal surfaces.

Matrix Test 3, page 163. The mandibular central incisor: comparison of mesial and distal.

Review Test 3, page 164. Mandibular incisors: lingual surface, height of contour, mamelons, antagonists.

Matrix Test 4, page 169. Comparison of mandibular central and lateral incisors.

Review Test 4, page 170. Mandibular incisors: line angles, cervical lines, differences between central and lateral. All incisors: characteristics in common.

Matrix Test 5, page 183. Characteristics of the maxillary canine. Mesial, central, distal compared.

Review Test 5, page 184. Maxillary canine: ridges, contact areas, facial width, cervical line, facial ridge.

Matrix Test 6, page 210. Comparison of maxillary and mandibular canines.

Review Test 6, page 211. Mandibular and maxillary canines: cingulum, incisal edge, inclination of cusp tip, cervical line, lingual features, line angles, contact areas.

Matrix Test 7, page 219. Incisocervical location of mesial and distal contact areas of all anterior teeth.

Review Test 7, page 220. Anterior teeth: heights of contour, embrasures.

Matrix Test 8, page 234. Root forms of all anterior teeth.

Review Test 8, page 235. Anterior teeth: pointedness of root apex, longitudinal grooves, root apex deviations, relative size of mandibular incisors.

Matrix Test 9, page 243. Pulp anatomy of maxillary central incisor, mandibular central incisor and maxillary canine.

Review Test 9, page 244. Pulp anatomy of anterior teeth: number of root canals, apical foramina, number of pulp horns.

## **CHAPTER 3: Permanent Premolars**

Matrix Test 1, page 262. Maxillary first premolar: facial, lingual, mesial, and distal features.

Review Test 1, page 263. Maxillary first premolar: ridges, grooves, and cusps.  
Matrix Test 2, page 278. Maxillary first premolar: comparison of mesial and distal.  
Review Test 2, page 279. Maxillary first premolar: lingual cusp tip, cervical line, line angles, height of contour.  
Matrix Test 3, page 285. Comparison of maxillary first and second premolars.  
Review Test 3, page 286. Maxillary premolars: identification of features from drawings.  
Matrix Test 4, page 316. Mandibular first premolar: mesial and distal features.  
Review Test 4, page 317. Mandibular first premolar: grooves, cusps, ridges.  
Matrix Test 5, page 333. Mandibular second premolar: mesial and distal features.  
Review Test 5, page 334. Mandibular second premolar: ridges, cusps, and grooves. Comparison of mandibular first and second premolars.  
Matrix Test 6, page 349. Root anatomy of all premolars.  
Review Test 6, page 350. Premolars: embrasures, proximal contacts, and heights of contour.  
Matrix Test 7, page 356. Pulp anatomy of premolars.  
Review Test 7, page 357. One question on single root canals of premolars.

#### **CHAPTER 4: Permanent Molars**

Matrix Test 1, page 373. Cusps of the maxillary first molar.  
Review Test 1, page 374. Maxillary first molar: eruption, occlusal point angles, lobes, ridges, grooves, fossae.  
Matrix Test 2, page 386. Maxillary first molar: facial, lingual, mesial, and distal features.  
Review Test 2, page 387. Maxillary first molar: cusps, proximal contacts.  
Matrix Test 3, page 396. Comparison of maxillary first and second molars.  
Review Test 3, page 402. Maxillary molars: occlusal outlines, facial groove, mesial and distal surfaces.  
Matrix Test 4, page 415. Cusps of the mandibular first molar.  
Review Test 4, page 416. Mandibular first molar: fossa, crown width, cusp ridges. Comparison of maxillary and mandibular first molar.  
Matrix Test 5, page 442. Mandibular first molar: facial, lingual, mesial, and distal features.  
Review Test 5, page 443. Mandibular first molar: grooves, crown contour, marginal ridges.  
Matrix Test 6, page 454. Comparison of mandibular first and second molars.  
Review Test 6, page 455. Mandibular molars: cusps, grooves, central fossae.  
Matrix Test 7, page 475. Root structures of molars.  
Review Test 7, page 476. Molars: number of terminal roots, root curvature.  
Matrix Test 8, page 484. Comparison of the pulp anatomy of maxillary and mandibular first molars.  
Review Test 8, page 485. Molars: number of pulp horns and root canals.

## CHAPTER 5: The Primary Dentition

Matrix Test 1, page 500. Comparison of primary central and lateral incisors.

Matrix Test 2, page 508. Comparison of primary maxillary and mandibular canines.

Review Test 1, page 509. Review of characteristics of primary vs. permanent dentitions, primary anterior teeth.

Review Test 2, page 546. Primary maxillary molars: cusps, ridges, and grooves.

Other review sections in Chapter 5 are as follows:

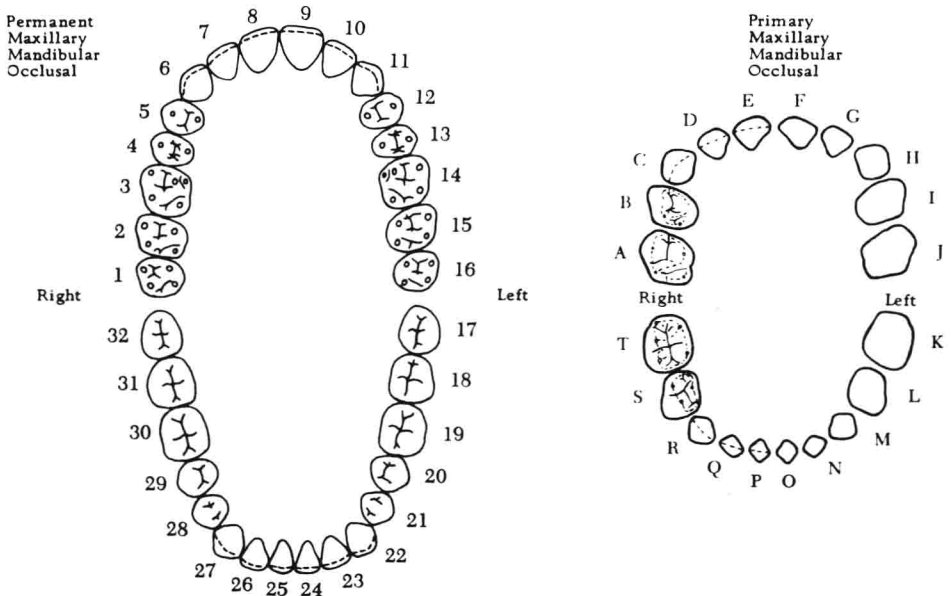
Page 514: Primary maxillary first molar.

Page 525: Primary maxillary second molar.

Page 543: Primary mandibular molars.

## CHAPTER 1: Arrangement, Naming and Coding of Teeth

There are several ways to review tooth arrangement and naming. You can use the charts of each dentition, reproduced below, to label each of the teeth by name, by arch and by quadrant. Also, you might want to add your own favorite coding system if it is not the Universal Code shown below.



You might want to take a set of tooth models or extracted teeth and identify them for practice. Sort the teeth into anterior and posterior, incisor, canine, premolar and molar, mandibular, and maxillary until you can do the sorting without error.

*Remembering the Universal Code.* You will need to develop a method for remembering the numbers and letters used in the Universal Coding System. Here are some suggestions:

First, note that the three molars in each quadrant are numbered 1, 2, 3; 14, 15, 16; 17, 18, 19; and 30, 31, 32. The numbers 1, 16, and 32 should be easy to remember since they represent the beginning, middle, and end of the numbers from 1 to 32.



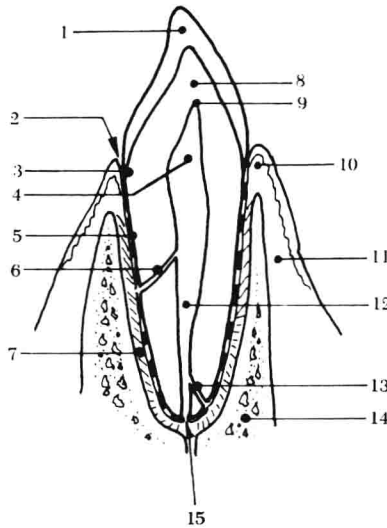
Second, note that the incisors are numbered 8 (which is half of 16) and 9, and also 24 (halfway between 16 and 32) and 25.

Third, you should be able to remember the canines and premolars by relating them to the codes you will learn for the molars and incisors.

For the primary teeth, you might note that the molars are lettered AB, IJ, KL, and ST. Incisors are lettered DEFG and NOPQ, and C stands for the maxillary right canine. A test of the Universal Coding System is included in the test section of this guide.

## CHAPTER 1: Tooth Tissues, Supporting Structure, Pulpal Anatomy

Below is a diagram that you can practice with by completing the labeling of the tooth tissues, supporting structures, and pulpal anatomy. (Answers follow.)



*Answers:* 1. enamel; 2. gingival sulcus; 3. cemento-enamel junction or cervical line; 4. pulp chamber; 5. cementum; 6. aberrant canal; 7. peridontal ligament; 8. dentin; 9. pulp horn; 10. gingiva (free marginal gingiva); 11. attached gingiva; 12. root canal; 13. accessory canal; 14. alveolar bone; 15. apical foramen.

## CHAPTER 1: Development and Eruption of Teeth

To review the eruption sequence and development of teeth, examine the tables of eruption dates on pages 74 and 75 of Chapter 1. Also, study the drawings below and then answer the study questions that follow.