

eHumanTM
DIGITAL ANATOMY



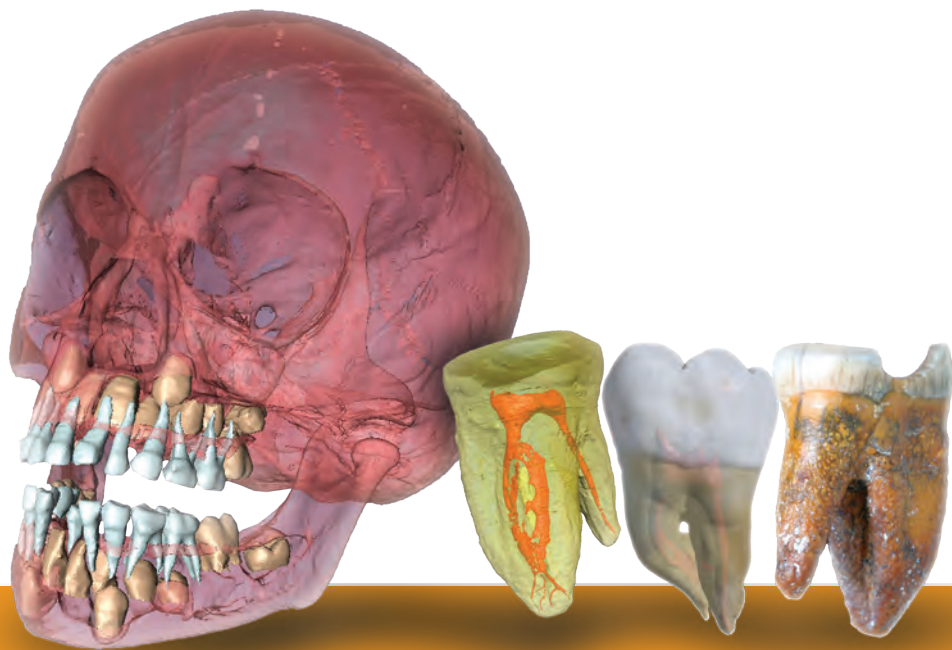
TOOTH ATLAS

COURSE GUIDE

ASSISTANT EDITION

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ABOUT THIS GUIDE:

The eHuman Tooth Atlas Course Guide is designed to help you correlate the extensive Tooth Atlas content to your program's dental assisting curriculum. Working with dental assisting educators, every page of the Tooth Atlas Assistant Edition has been associated with learning objectives for topics that are taught within specific courses. We have included presentation examples for many of the learning objectives, and we encourage all educators to submit their own examples of activities or exercises. If you would like to contribute any of your own examples, please email them to us at courseguide@ehuman.com. A digital version of the guide is available at www.ehuman.com/courseguide. We hope you'll find the Course Guide to be a useful tool to unlock the power of the Tooth Atlas.

HOW TO USE THIS GUIDE:

The Guide is divided by course, with the learning objectives specified for each course. Each page of the Tooth Atlas is represented, and may be relevant to one or more courses, and to one or more learning objectives. For each course objective, the guide identifies the relevant Tooth Atlas pages and lists the Section, Page and Topic contents on that page. Throughout the Guide, we provide examples of how to incorporate the content into your curriculum

Navigation instructions are sometimes included to help you find the page. They always begin at the Atlas Table of Contents (HOME). They are in parenthesis, with successive clicks indicated with an arrow (>).

EXAMPLE

Show the maxilla and mandible in detail.

Click on Skull Osteology > Click on 3D Model >
Click on Maxilla anatomy or Mandible anatomy

TOOTH ATLAS

COURSE GUIDE

DENTAL ANATOMY

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Identify the anatomical variations of deciduous teeth and pulp, 7
Identify the anatomical variations of permanent teeth and pulp, 7
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Describe the cuspal relationships of the maxillary and mandibular teeth, 9
Describe the molar relationship in Angle's Class III malocclusion, 10
Explain how periodontal structures relate to the teeth, 10
Differentiate anterior overbite from overjet occlusion in the permanent dentition, 10
Describe anatomical characteristics of each primary tooth type, 11
Describe the structures related to the periodontal sulcus, 12

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Describe how the orthodontic phases relate to occlusal classification, 12

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Identify the location of pits and fissures for sealants, 14

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Explain the process of tooth formation and the stages of tooth development, 19
Identify the cap, bell and bud stages during tooth formation, 19

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Identify normal primary teeth and bone landmarks on a periapical radiograph, 20
Locate the deciduous teeth on a panorex radiograph, 21
Identify normal primary teeth and bone landmarks on a panorex radiograph, 21
Explain normal root to crown length ratios for deciduous teeth using a periapical radiograph, 21
Explain the normal relation of the alveolar bone to the junctional epithelium, 22
Identify periodontium structures on a periapical radiograph, 23
Identify the bony and periodontal landmarks and surrounding structures of the maxilla and mandible, 23
Locate the permanent teeth on a panorex radiograph, 24
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Describe the role of subgingival calculus in periodontal disease, 25
Discuss the effect of supragingival and subgingival calculus on periodontal disease, 26
Introduce the decay process and risk assessment methods for caries, 26
Describe how to use periodontal probe readings in diagnosing periodontal disease, 26

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Identify the trigeminal nerve routes for maxillary and mandibular teeth, 28
Describe the location of maxillary and mandibular nerve block injections, 28

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Differentiate between periapical radiolucencies and radiopacities, 29
Identify pathological anomalies using dental radiographs, 30

LEARNING OBJECTIVES

- Compare pulpal tissue sizes during the aging process, 6
- Identify the anatomical variations of deciduous teeth and pulp, 7
- Identify the anatomical variations of permanent teeth and pulp, 7
- Describe the facial relationship of the upper teeth to lower teeth in occlusion, 8
- Describe the cuspal relationships of the maxillary and mandibular teeth, 9
- Describe the molar relationship in Angle's Class III malocclusion, 10
- Explain how periodontal structures relate to the teeth, 10
- Differentiate anterior overbite from overjet occlusal in the permanent dentition, 10
- Describe anatomical characteristics of each primary tooth type, 11
- Describe the structures related to the periodontal sulcus, 12

COMPARE PULPAL TISSUE SIZES DURING THE AGING PROCESS

Section	Page	Topic
Secondary Teeth	3D Models	Reconstruction of hundreds of high-res CT scans of teeth: the 1st tooth in each 3D model page introduces vocabulary; the 2nd illustrates information the ADA considers important and the 3rd highlights 'Unique features' of each tooth. Many 3D models demonstrate the anatomical variations of each tooth and pulp and the age-related changes in the pulp.

EXAMPLE

Learning activities can include drawing various aspects of pulpal anatomy, comparing 2D and 3D models to gain special understanding of location of pulp, locating canal openings on various pulp 2D and 3D models, and so on.

Describe how to use the buttons to turn off the enamel and dentin, leaving only the pulp.

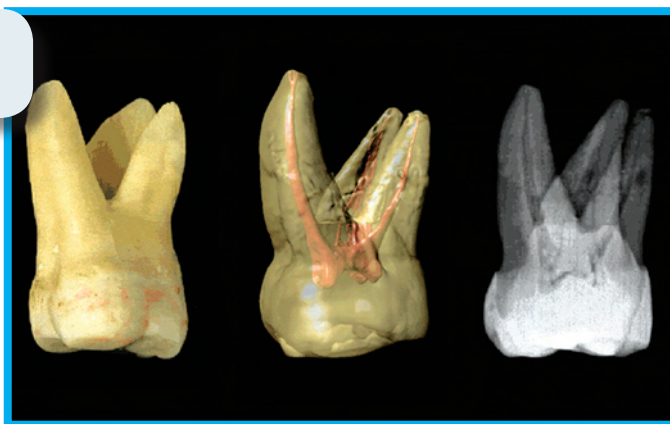
Click on a Secondary Tooth > Click on 3D Models > Select a tooth > Select Enamel from the Transparency dropdown menu > Use the Transparency slider to turn off the enamel



IDENTIFY THE ANATOMICAL VARIATIONS OF DECIDUOUS TEETH AND PULP

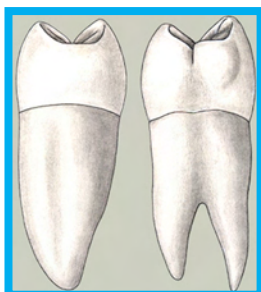
Section	Page	Topic
Primary Teeth	3D Models	Reconstruction of hundreds of high-res CT scans of teeth: the 1st tooth in each 3D model page demonstrates general characteristics; the 2nd illustrates dental anatomy and terminology. A few 3D models demonstrate the anatomical variations of each tooth and pulp.
Primary Teeth	Rotations and Slices	User-controlled simultaneous rotation of a tooth: 1) Photograph, 2) 3D surface model, 3) 3D X-ray and simultaneous view through CT and photograph slice data.

Click on Primary Teeth > Click on a tooth >
Click on Rotations and Slices



IDENTIFY THE ANATOMICAL VARIATIONS OF PERMANENT TEETH AND PULP

Section	Page	Topic
Secondary Teeth	3D Models	Reconstruction of hundreds of high-res CT scans of teeth: the 1st tooth in each 3D model page demonstrates general characteristics; the 2nd illustrates dental anatomy and terminology. A few 3D models demonstrate the anatomical variations of each tooth and pulp.
Secondary Teeth	Rotations and Slices	User-controlled simultaneous rotation of a tooth: 1) Photograph, 2) 3D surface model, 3) 3D X-ray and simultaneous view through CT and photograph slice data.



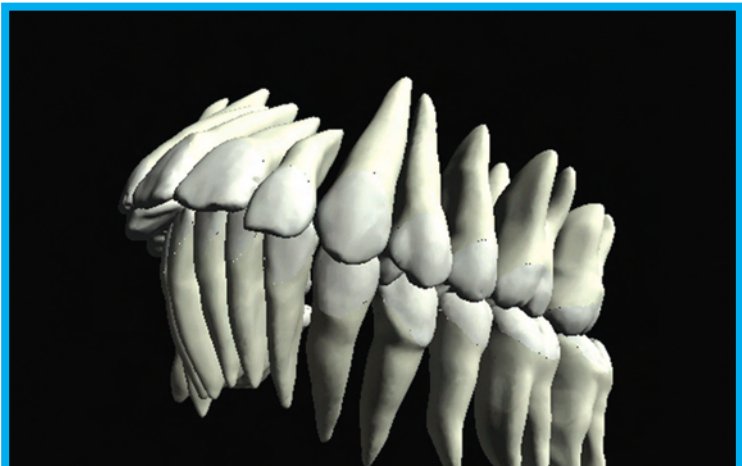
Click on a Secondary Tooth > Click on Comparison

DESCRIBE THE FACIAL RELATIONSHIP OF THE UPPER TEETH TO LOWER TEETH IN OCCLUSION

Section	Page	Topic
Occlusion	Arches in Occlusion (Class I)	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class I occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.
Occlusion	Class II Occlusion	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class II occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.
Occlusion	Class III Occlusion	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class III occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.

EXAMPLE

Discuss the relationship of upper to lower teeth when identifying the occlusal classification.



Click on Occlusion > Click on Arches in Occlusion >
Click on Class III Occlusion

DESCRIBE THE CUSPAL RELATIONSHIPS OF THE MAXILLARY AND MANDIBULAR TEETH

Section	Page	Topic
Occlusion	Points of Occlusion	View the different points of contact between the upper and lower teeth and how they relate. Interact with the image and text to display information on points of occlusal contact.
Occlusion	Arches in Occlusion (Class I)	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class I occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.
Occlusion	Class II Occlusion	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class II occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.
Occlusion	Class III Occlusion	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class III occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.

ACTIVITY

Discuss the relationship of the upper to the lower teeth, and the anatomical features used to identify the occlusal classification.



Click on Occlusion > Click on Arches in Occlusion >
Click on Class III Occlusion

DESCRIBE THE MOLAR RELATIONSHIP IN ANGLE’S CLASS III MALOCCLUSION

Section	Page	Topic
Occlusion	Class III Occlusion	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class III occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.

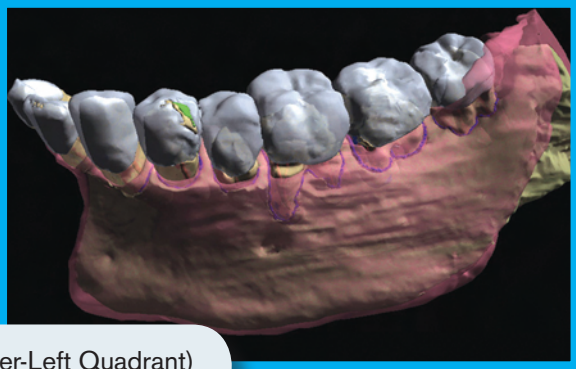
EXPLAIN HOW PERIODONTAL STRUCTURES RELATE TO THE TEETH

Section	Page	Topic
Periodontology	Perio Morphology PDF	Periodontal anatomy slide series.

EXAMPLE

This is an excellent area for developing learning activities around periodontal disease situations such as the anatomy of a boney pocket.

Click on Periodontology > Click on Lower-Left Quadrant)



DIFFERENTIATE ANTERIOR OVERBITE FROM OVERJET OCCLUSION IN THE PERMANENT DENTITION

Section	Page	Topic
Occlusion	Arches in Occlusion (Class I)	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class I occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.

DESCRIBE ANATOMICAL CHARACTERISTICS OF EACH PRIMARY TOOTH TYPE

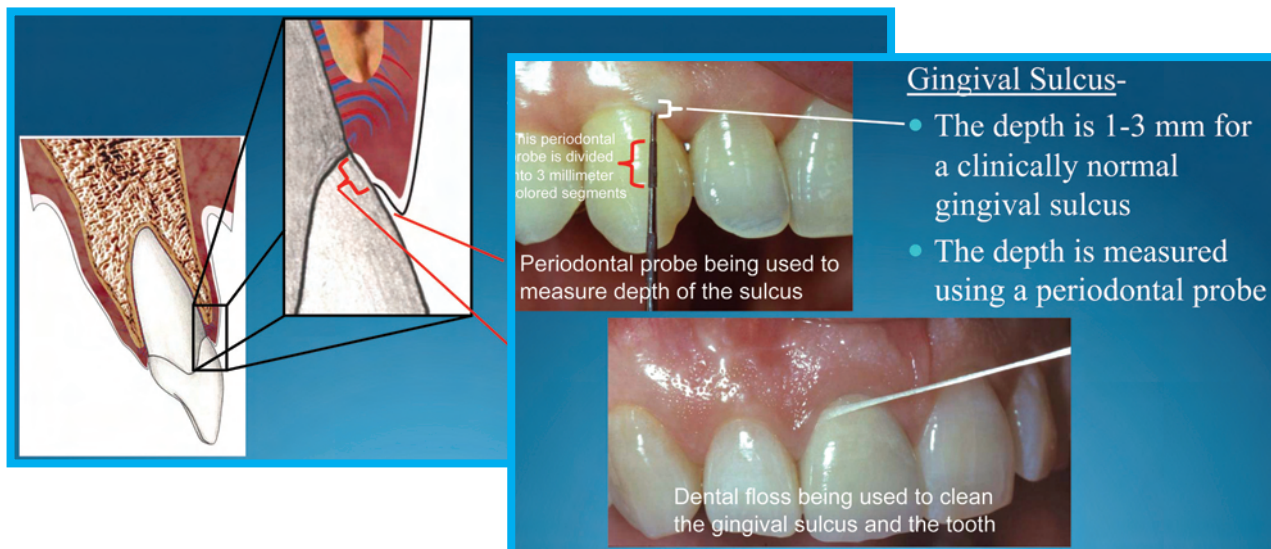
Section	Page	Topic
Primary Teeth	3D Models	Reconstruction of hundreds of high-res CT scans of teeth: the 1st tooth in each 3D model page demonstrates general characteristics; the 2nd illustrates dental anatomy and terminology. A few 3D models demonstrate the anatomical variations of each tooth and pulp.
Primary Teeth	Morphology	Morphology contains a synopsis of every anatomical landmark of each tooth and the comments of every textbook on each anatomical landmark. To see this information, select the 2D image of interest and highlight the text annotation or roll the mouse over the image.
Primary Teeth	Rotations and Slices	User-controlled simultaneous rotation of a tooth: 1) Photograph, 2) 3D surface model, 3) 3D X-ray and simultaneous view through CT and photograph slice data.

DESCRIBE THE STRUCTURES RELATED TO THE PERIODONTAL SULCUS

Section	Page	Topic
Periodontology	Perio Morphology PDF	Periodontal anatomy slide series.

EXAMPLE

Review the anatomy of the periodontal sulcus and how the sulcus relates to the alveolar bone.



LEARNING OBJECTIVES

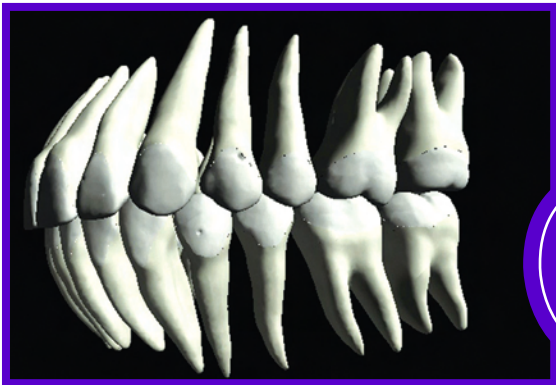
- Explain why elastics are needed with fixed orthodontic appliances, 12
- Describe how the orthodontic phases relate to occlusal classification, 12

EXPLAIN WHY ELASTICS ARE NEEDED WITH FIXED ORTHODONTIC APPLIANCES

Section	Page	Topic
Occlusion	Points of Occlusion	View the different points of contact between the upper and lower teeth and how they relate. Interact with the image and text to display information on points of occlusal contact.

DESCRIBE HOW THE ORTHODONTIC PHASES RELATE TO OCCLUSAL CLASSIFICATION

Section	Page	Topic
Occlusion	Arches in Occlusion (Class I)	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class I occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.
Occlusion	Class II Occlusion	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class II occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.
Occlusion	Class III Occlusion	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class III occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.



ACTIVITY

Discuss the relationship of the upper to the lower teeth, and the anatomical features used to identify occlusal classification.

LEARNING OBJECTIVES

- Understand the occlusal anatomy for fabricating temporary restorations, 13
- Identify the location of pits and fissures for sealants, 14

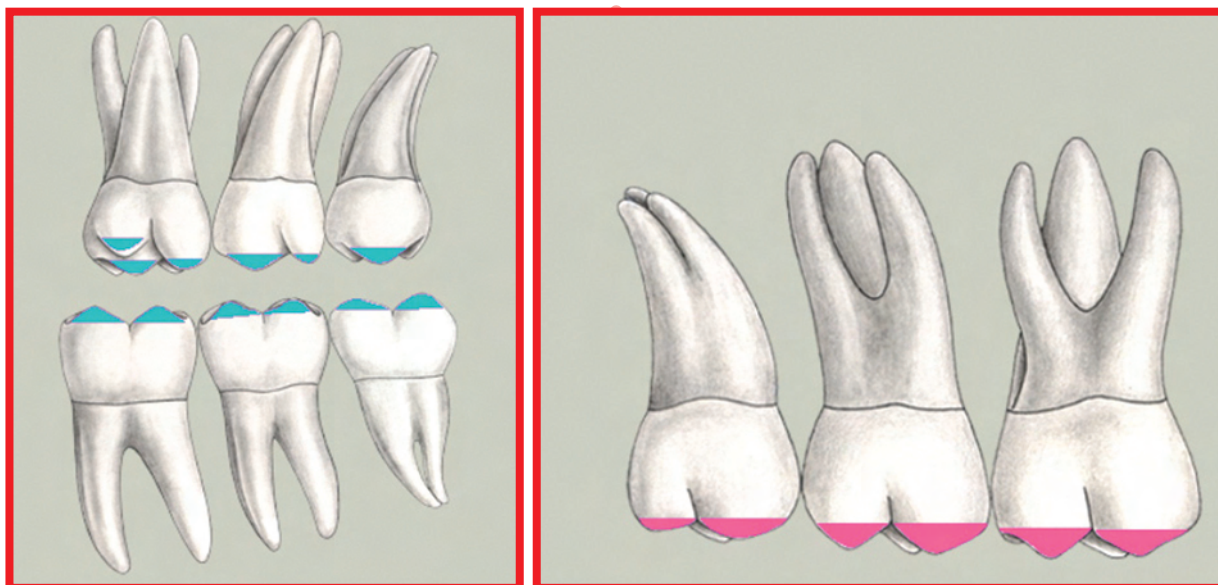
UNDERSTAND THE OCCLUSAL ANATOMY FOR FABRICATING TEMPORARY RESTORATIONS

Section	Page	Topic
Occlusion	Points of Occlusion	View the different points of contact between the upper and lower teeth and how they relate. Interact with the image and text to display information on points of occlusal contact.
Secondary Teeth	Comparisons	Reviews all 7 comparisons between teeth, such as 1st, 2nd and 3rd molars to each other, maxillary to mandibular, occlusal surfaces and mesial views.

EXAMPLE

Use the facial and lingual views to review the anatomy and interproximal contacts necessary to fabricate a temporary crown.

Click on Primary Teeth > Click on Dental Embryology



IDENTIFY THE LOCATION OF PITS AND FISSURES FOR SEALANTS

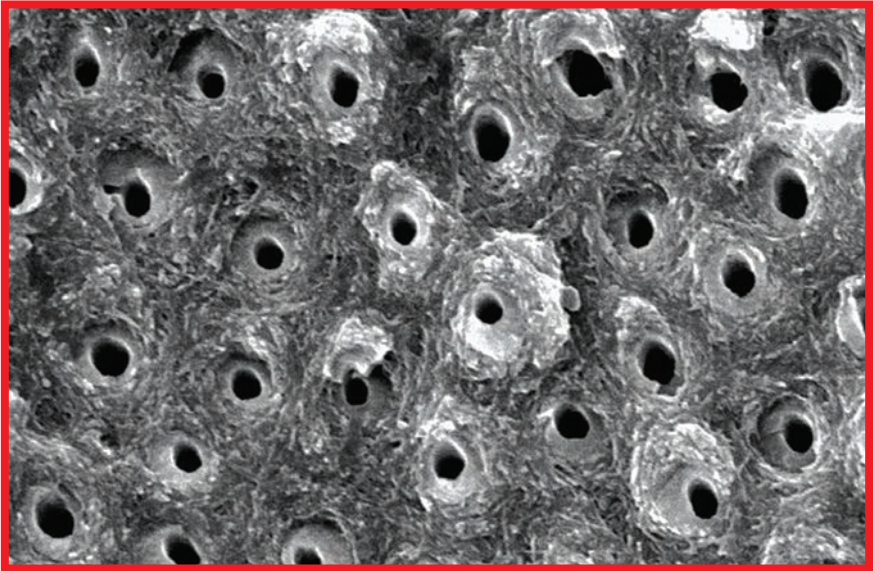
Section	Page	Topic
Primary Teeth	Dental Embryology	3D PDF of embryological structures along with their histology.
Extras	Caries	Information on age-related changes in dentin.

EXAMPLE

Provide a visual image of dentinal tubules when discussing their anatomy, the role of the acid etch, tooth sensitivity, or the dentin smear layer.

Discussion and activities may focus on the relation of aging changes in dentin to environmental injury and dentin repair.

Click on Extras > Click on Aging



LEARNING OBJECTIVES

- Identify and document a patient's occlusal classification, 15
- Identify approximate age of a patient with a mixed dentition according to the eruption schedule, 15
- Summarize the primary tooth eruption schedule, 15
- Demonstrate the process of periodontal probing, 16

IDENTIFY AND DOCUMENT A PATIENT'S OCCLUSAL CLASSIFICATION

Section	Page	Topic
Occlusion	Arches in Occlusion (Class I)	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class I occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.
Occlusion	Class II Occlusion	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class II occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.
Occlusion	Class III Occlusion	Fully interactive, annotated, 3D models of the upper and lower arches of adult teeth in complete Class III occlusion. Change the viewing angle, transparency of the teeth or use the cutting plane to display and study the occlusal properties of human dentition.

IDENTIFY APPROXIMATE AGE OF A PATIENT WITH A MIXED DENTITION ACCORDING TO THE ERUPTION SCHEDULE

Section	Page	Topic
Primary Teeth dentition.	Eruption Schedule	Position and sequence of transitional

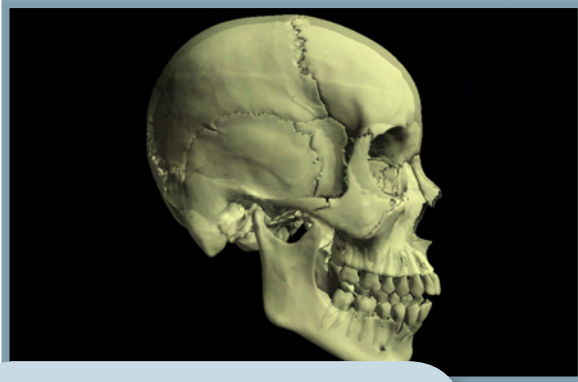
SUMMARIZE THE PRIMARY TOOTH ERUPTION SCHEDULE

Section	Page	Topic
Primary Teeth	Eruption Schedule	Position and sequence of transitional dentition.

EXAMPLE

Use learning activities such as group discussions, drawing assignments, quizzes or tests to enhance foundational knowledge of growth and development.

- Compare a child's skull with an adult skull and identify the areas where growth occurs in the maxilla and mandible.



Click on Skull Osteology > Click on 3D Models > Click on Skull



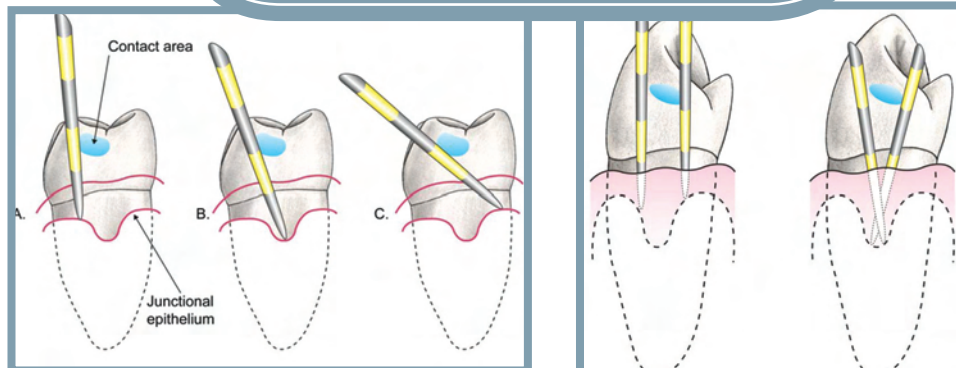
Click on Skull Osteology > Click on 3D Models > Click on Child Skull

DEMONSTRATE THE PROCESS OF PERIODONTAL PROBING

Section	Page	Topic
Periodontology	Perio Morphology PDF	Periodontal anatomy slide series.

EXAMPLE

Use this powerpoint series to explain the anatomy of the periodontal pocket and the importance of probing in the diagnosis of periodontal disease



LEARNING OBJECTIVES

- Describe the formation of permanent teeth and resorption of the deciduous roots, 17
- Discuss development of the teeth and associated structures during tooth eruption, 18
- Reiterate how root formation follows crown formation and correlate this process to tooth eruption, 18
- Explain root development, 19
- Explain the process of tooth formation and stages of tooth development, 19
- Identify the cap, bell and bud stages during tooth formation, 19

DESCRIBE THE FORMATION OF PERMANENT TEETH AND RESORPTION OF THE DECIDUOUS ROOTS

Section	Page	Topic
Primary Teeth	3D Child Skull	Cutaway identifies transitional dentition and surrounding structures.

EXAMPLE

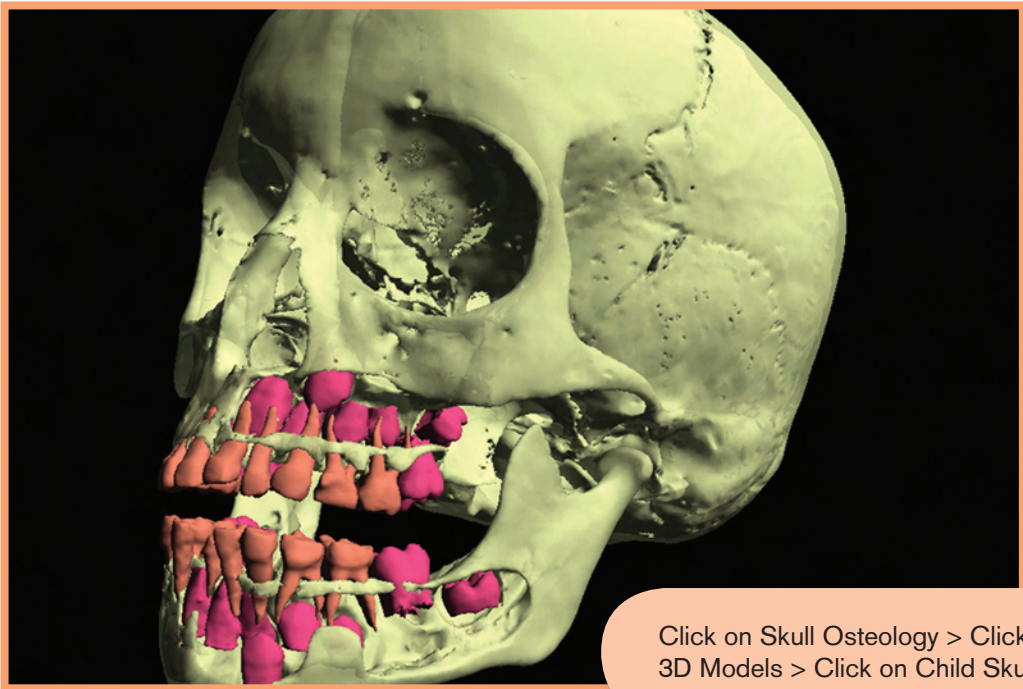
Use learning activities such as group discussions, drawing assignments, quizzes or tests to enhance foundational knowledge of growth and development.



[Click on Primary Teeth](#) > [Click on 3D Child Skull](#)

DISCUSS DEVELOPMENT OF THE TEETH AND ASSOCIATED STRUCTURES DURING TOOTH ERUPTION

Section	Page	Topic
Primary Teeth	3D Child Skull	Cutaway identifies transitional dentition and surrounding structures.
Primary Teeth	Eruption Schedule	Position and sequence of transitional dentition.
Skull Osteology	Child Skull	Rotation of superimposed photographs and X-rays.



Click on Skull Osteology > Click on 3D Models > Click on Child Skull

REITERATE HOW ROOT FORMATION FOLLOWS CROWN FORMATION AND CORRELATE THIS PROCESS TO TOOTH ERUPTION

Section	Page	Topic
Primary Teeth	3D Child Skull	Cutaway identifies transitional dentition and surrounding structures.

EXPLAIN ROOT DEVELOPMENT

Section	Page	Topic
Primary Teeth	3D Child Skull	Cutaway identifies transitional dentition and surrounding structures.

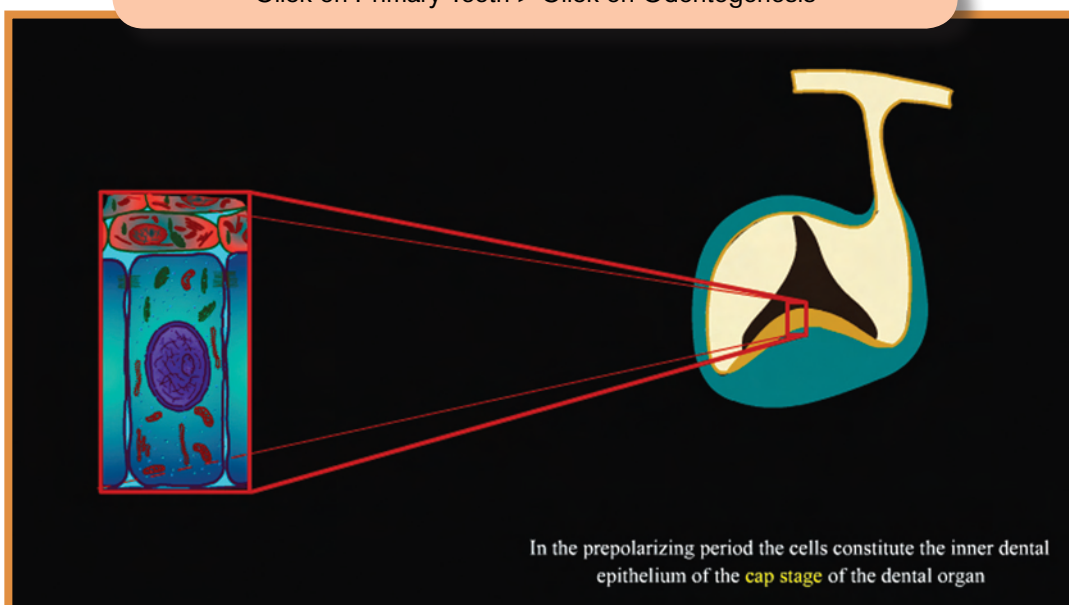
EXPLAIN THE PROCESS OF TOOTH FORMATION AND STAGES OF TOOTH DEVELOPMENT

Section	Page	Topic
Primary Teeth	Odontogenesis	Animation of odontogenesis (tooth formation).

IDENTIFY THE CAP, BELL AND BUD STAGES DURING TOOTH FORMATION

Section	Page	Topic
Primary Teeth	Odontogenesis	Animation of odontogenesis.

Click on Primary Teeth > Click on Odontogenesis



LEARNING OBJECTIVES

- Identify anatomical landmarks of deciduous teeth on a periapical radiograph, 20
- Identify normal primary teeth and bone landmarks on a periapical radiograph, 20
- Locate the deciduous teeth on a panorex radiograph, 21
- Identify normal primary teeth and bone landmarks on a panorex radiograph, 21
- Explain normal root to crown length ratios for deciduous teeth using a periapical radiograph, 21
- Explain normal relation of the alveolar bone to the junctional epithelium, 22
- Identify periodontium structures on a periapical radiograph, 23
- Identify the bony and periodontal landmarks and surrounding structures of the maxilla and mandible, 23
- Locate the permanent teeth on a panorex radiograph, 24
- Identify anatomical landmarks of permanent teeth on a periapical radiograph, 24

IDENTIFY ANATOMICAL LANDMARKS OF DECIDUOUS TEETH ON A PERIAPICAL RADIOGRAPH

Section	Page	Topic
Primary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.

IDENTIFY NORMAL PRIMARY TEETH AND BONE LANDMARKS ON A PERIAPICAL RADIOGRAPH

Section	Page	Topic
Primary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.

EXAMPLE

You can design learning activities to compare and contrast differences in radiographic anatomy from primary to secondary teeth, and so on.

Use the radiograph tab at each secondary tooth to identify the landmarks present in the numbered box at the left. Roll the mouse over the image and use the “hide all” and “show all” buttons to complete self-assessment quizzes.



Click on Primary Teeth > Click on a Primary Tooth > Click on Radiograph

LOCATE THE DECIDUOUS TEETH ON A PANOREX RADIOGRAPH

Section	Page	Topic
Primary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.
X-Ray Database	Annotated Panorex	Rollover annotations of a panorex for structure identification.

IDENTIFY NORMAL PRIMARY TEETH AND BONE LANDMARKS ON A PANOREX RADIOGRAPH

Section	Page	Topic
Primary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.

EXPLAIN NORMAL ROOT TO CROWN LENGTH RATIOS FOR DECIDUOUS TEETH USING A PERIAPICAL RADIOGRAPH

Section	Page	Topic
Primary Teeth	X-Ray Database	Several radiographic examples of each tooth illustrate anatomical variation.
Secondary Teeth	X-Ray Database	Several radiographic examples of each tooth illustrate anatomical variation.

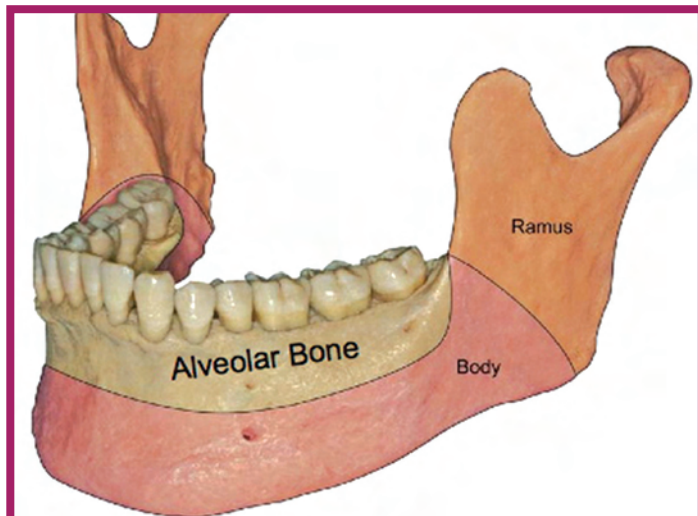
EXPLAIN NORMAL RELATION OF THE ALVEOLAR BONE TO THE JUNCTIONAL EPITHELIUM

Section	Page	Topic
Primary Teeth	X-Ray Database	Several radiographic examples of each tooth illustrate anatomical variation.
Secondary Teeth	X-Ray Database	Several radiographic examples of each tooth illustrate anatomical variation.
Periodontology	Perio Morphology PDF	Periodontal anatomy slide series.

EXAMPLE

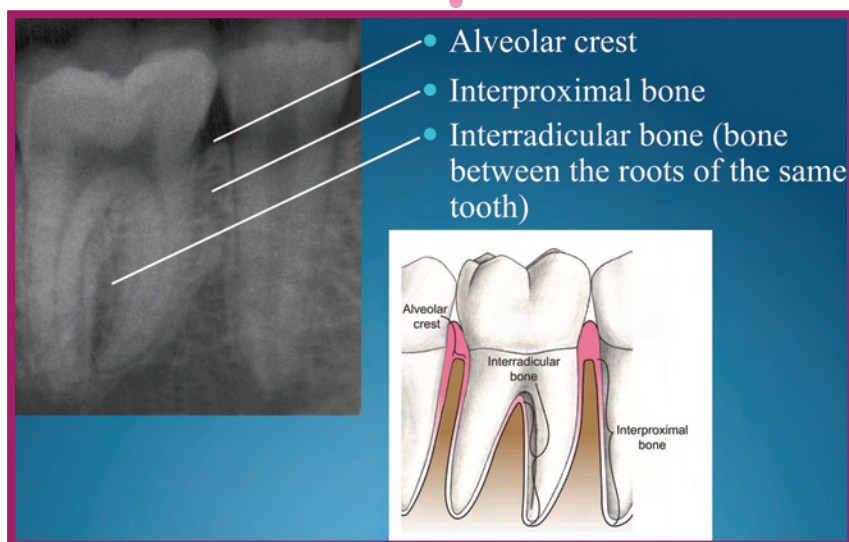
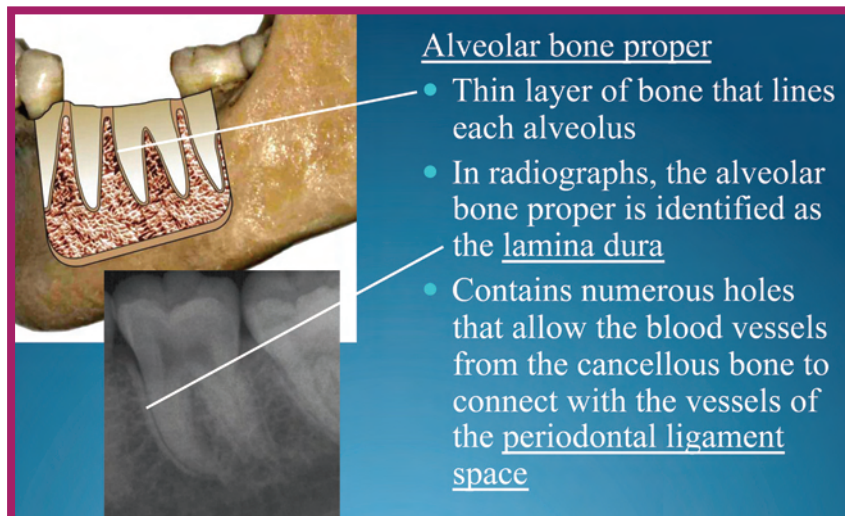
Use this reference to view and discuss anatomical landmarks of the periodontium.

[Click on Periodontology](#) > [Click on Perio Morphology PDF](#)



IDENTIFY PERIODONTIUM STRUCTURES ON A PERIAPICAL RADIOGRAPH

Section	Page	Topic
Periodontology	Perio Morphology PDF	Periodontal anatomy slide series.



IDENTIFY THE BONY AND PERIODONTAL LANDMARKS AND SURROUNDING STRUCTURES OF THE MAXILLA AND MANDIBLE

Section	Page	Topic
X-Ray Database	Annotated Panorex	Rollover annotations of a panorex for structure identification.
Secondary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.

LOCATE THE PERMANENT TEETH ON A PANOREX RADIOGRAPH

Section	Page	Topic
Secondary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.

EXAMPLE

Discuss radiopaque and radiolucent landmarks on a panorex.



LOCATE AND DESCRIBE ANATOMICAL LANDMARKS

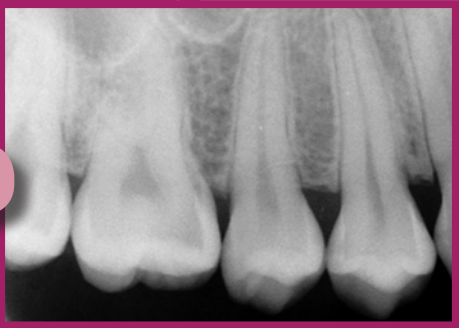
Section	Page	Topic
Secondary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.

EXAMPLE

These sections can be up on the student's laptop for radiographic references during pre-clinical and clinical procedures.

Use the radiograph tab at each secondary tooth to identify the landmarks present in the numbered box at the left. Roll the mouse over the image and use the "hide all" and "show all" buttons to complete self-assessment quizzes.

Click on a Secondary Tooth > Click Radiograph



LEARNING OBJECTIVES

- Describe the role of subgingival calculus in periodontal disease, 25
- Discuss the effect of supragingival and subgingival calculus on periodontal disease, 26
- Introduce the decay process and risk assessment methods for caries, 26
- Describe how to use periodontal probe readings in diagnosing periodontal disease, 26

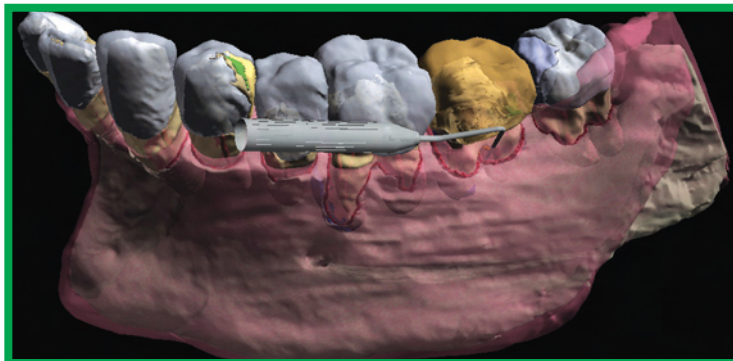
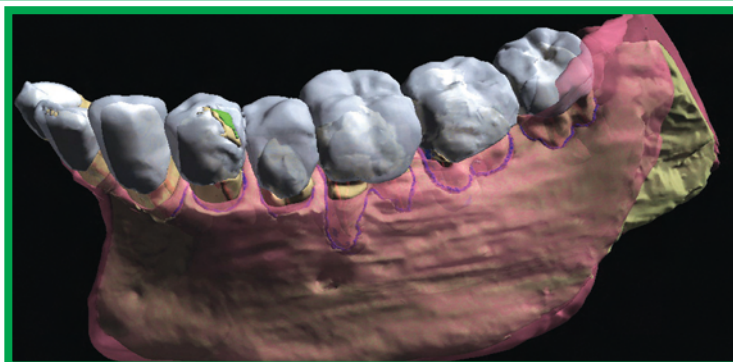
IDENTIFY ANATOMICAL STRUCTURES

Section	Page	Topic
Primary Teeth	Radiograph	3D model with: 1) User controlled transparency of teeth and their supporting structures, 2) Normal and pathological conditions, 3) Perioprobing demo.
Periodontology	3D Model: Complex	3D model with: 1) User controlled transparency of teeth and their supporting structures, 2) Normal and pathological conditions, 3) Perioprobing demo.

EXAMPLE

Use this model for consideration when packing retraction cord in the periodontal sulcus.

This area can provide valuable knowledge of the interrelationship of periodontal structures and teeth for the student who is studying design and treatment of various Fixed Prosthodontic procedures.



DISCUSS THE EFFECT OF SUPRAGINGIVAL AND SUBGINGIVAL CALCULUS ON PERIODONTAL DISEASE

Section	Page	Topic
Primary Teeth	Radiograph	3D model with: 1) User controlled transparency of teeth and their supporting structures, 2) Normal and pathological conditions, 3) Perioprobing demo.
Periodontology	3D Model: Complex	3D model with: 1) User controlled transparency of teeth and their supporting structures, 2) Normal and pathological conditions, 3) Perioprobing demo.

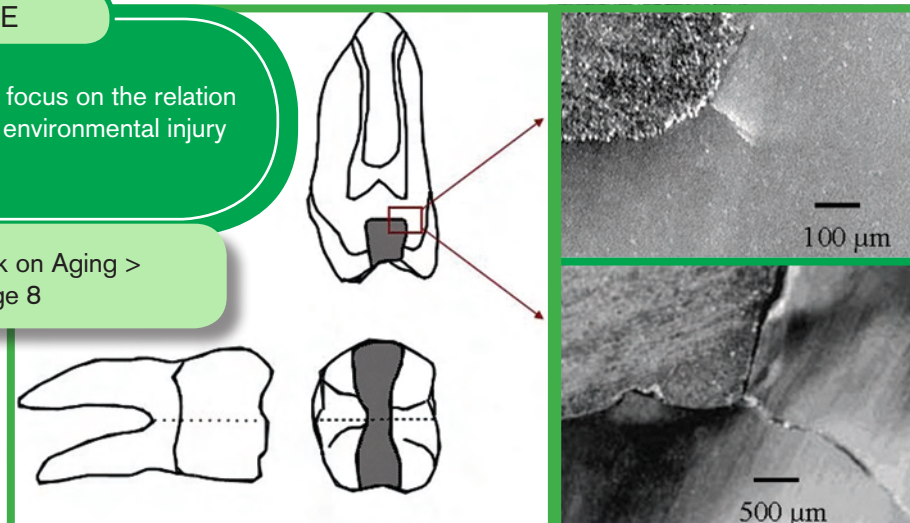
INTRODUCE THE DECAY PROCESS AND RISK ASSESSMENT METHODS FOR CARIES

Section	Page	Topic
Periodontology	3D Model: Simple	3D model with: 1) User controlled transparency of teeth and their supporting structures, 2) Normal and pathological conditions, 3) Perioprobing demo.
Periodontology	3D Model: Complex	3D model with: 1) User controlled transparency of teeth and their supporting structures, 2) Normal and pathological conditions, 3) Perioprobing demo.
Extras	Caries	Micro-CT scan 3D color-coded model of carious lesion along with histology and lesion description.

EXAMPLE

Discussion and activities may focus on the relation of aging changes in dentin to environmental injury and dentin repair.

Click on Extras > Click on Aging >
Click on Image 8



DESCRIBE HOW TO USE PERIODONTAL PROBE READINGS IN DIAGNOSING PERIODONTAL DISEASE

Section	Page	Topic
Periodontology	Perio Morphology PDF	Periodontal anatomy slide series.

LEARNING OBJECTIVES

- Identify routes of head blood vessels on a skull, 27
- Identify the trigeminal nerve routes for maxillary and mandibular teeth, 28
- Describe the location of maxillary and mandibular nerve block injections, 28

IDENTIFY ROUTES OF HEAD BLOOD VESSELS ON A SKULL

Section	Page	Topic
Skull Osteology	Stanford Skull	Rotation of superimposed photographs and X-rays.
Skull Osteology	Stanford Skull Hi-Res	Cutaway identifies transitional dentition and surrounding structures.
Skull Osteology	Stanford Skull Hi-Res	Cutaway identifies transitional dentition and surrounding structures.
Skull Osteology	Stanford Skull Hi-Res Maxilla and Mandible	<p>Cutaway identifies transitional dentition and surrounding structures.</p> <p>Rotation of superimposed photographs and X-rays.</p> <p>Annotated photograph of dissected maxilla.</p> <p>Annotated photograph of dissected mandible.</p>



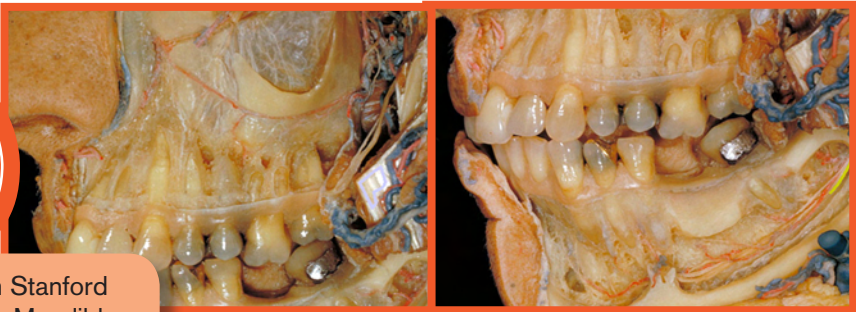
IDENTIFY THE TRIGEMINAL NERVE ROUTES FOR MAXILLARY AND MANDIBULAR TEETH

Section	Page	Topic
Skull Osteology	Stanford Skull	Rotation of superimposed photographs and X-rays.
Skull Osteology	Stanford Skull Hi-Res	Cutaway identifies transitional dentition and surrounding structures.
Skull Osteology	Stanford Skull Hi-Res Maxilla and Mandible	Cutaway identifies transitional dentition and surrounding structures.
Skull Osteology	Stanford Skull Lo-Res Maxilla and Mandible	Cutaway identifies transitional dentition and surrounding structures.
Skull Osteology	Child Skull	Rotation of superimposed photographs and X-rays.
Skull Osteology	Annotated Maxilla	Annotated photograph of dissected maxilla.
Skull Osteology	Annotated Mandible	Annotated photograph of dissected mandible.

EXAMPLE

Identify maxillary and mandibular innervation for the teeth and surrounding structures.

Click on Skull Osteology > Click on Stanford Skull > Click on Annotated Maxilla or Mandible



DESCRIBE THE LOCATION OF MAXILLARY AND MANDIBULAR NERVE BLOCK INJECTIONS

Section	Page	Topic
Skull Osteology	Stanford Skull	Rotation of superimposed photographs and X-rays.
Skull Osteology	Stanford Skull Hi-Res	Cutaway identifies transitional dentition and surrounding structures.
Skull Osteology	Stanford Skull Hi-Res Maxilla and Mandible	Cutaway identifies transitional dentition and surrounding structures.
Skull Osteology	Stanford Skull Lo-Res Maxilla and Mandible	Cutaway identifies transitional dentition and surrounding structures.
		Rotation of superimposed photographs and X-rays.
		Annotated photograph of dissected maxilla.
		Annotated photograph of dissected mandible.

LEARNING OBJECTIVES

- Differentiate between periapical radiolucencies and radiopacities, 29
- Identify pathological anomalies using dental radiographs, 30

IDENTIFY ANATOMICAL STRUCTURES

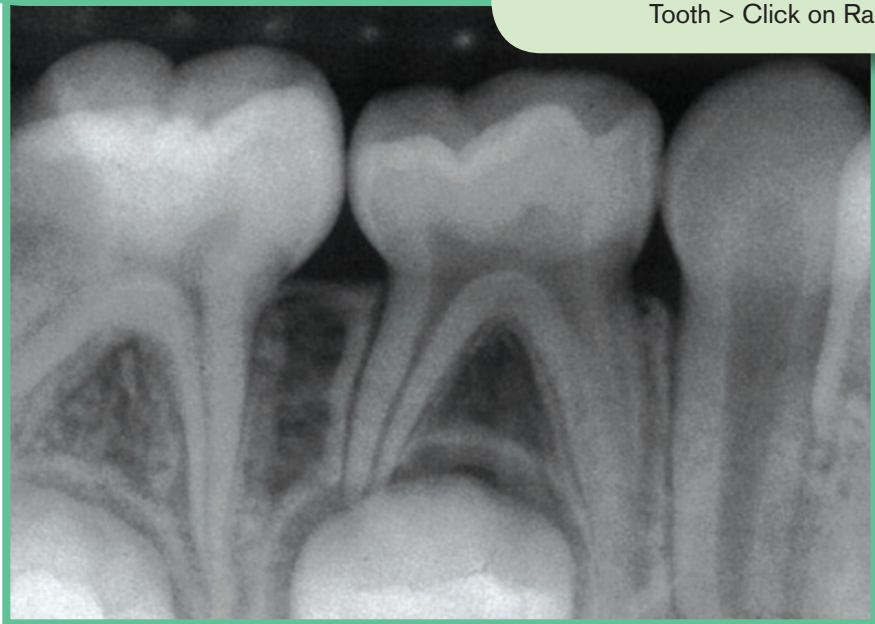
Section	Page	Topic
X-Ray Database	X-Ray Database	660 X-rays with searchable database for conditions and variations.
Primary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.
Secondary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.

EXAMPLE

You can design learning activities to compare and contrast differences in radiographic anatomy from primary to secondary teeth, and so on.

Use the radiograph tab at each secondary tooth to identify the landmarks present in the numbered box at the left. Roll the mouse over the image and use the “hide all” and “show all” buttons to complete self-assessment quizzes.

Click on Primary Teeth > Click on a Primary Tooth > Click on Radiograph



IDENTIFY ANATOMICAL STRUCTURES

Section	Page	Topic
X-Ray Database	X-Ray Database	660 X-rays with searchable database for conditions and variations.
Primary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.
Secondary Teeth	Radiograph	An interactive annotated X-ray introduces the name and location of anatomical structures.

Click on Secondary Teeth > Click on a Secondary Tooth
> Click on Radiograph

