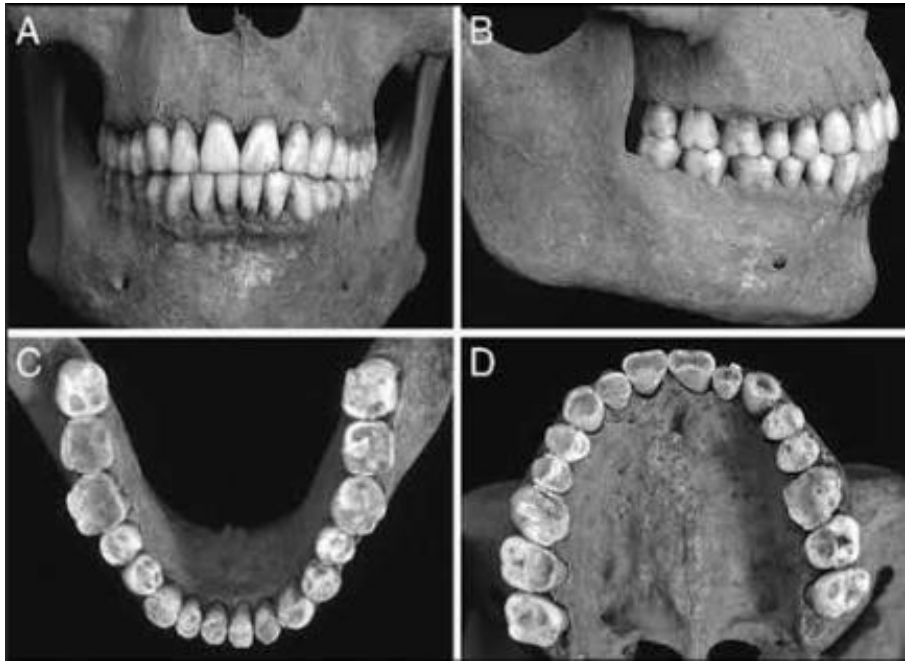

Primary Tooth
Permanent Tooth
Permanent First Molar Tooth


A
B
C
D

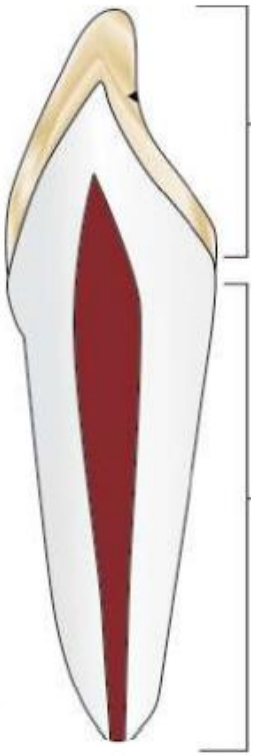
Learning Objectives

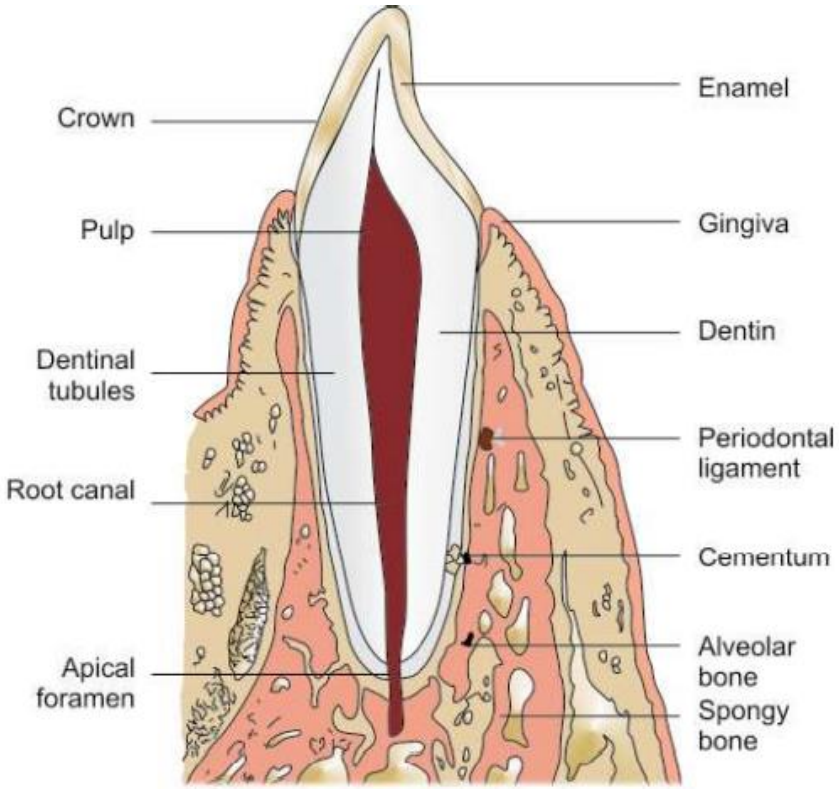
By the end of this session the learners will be able to:

- Describe the application of odontology in forensic medicine

Forensic Odontology

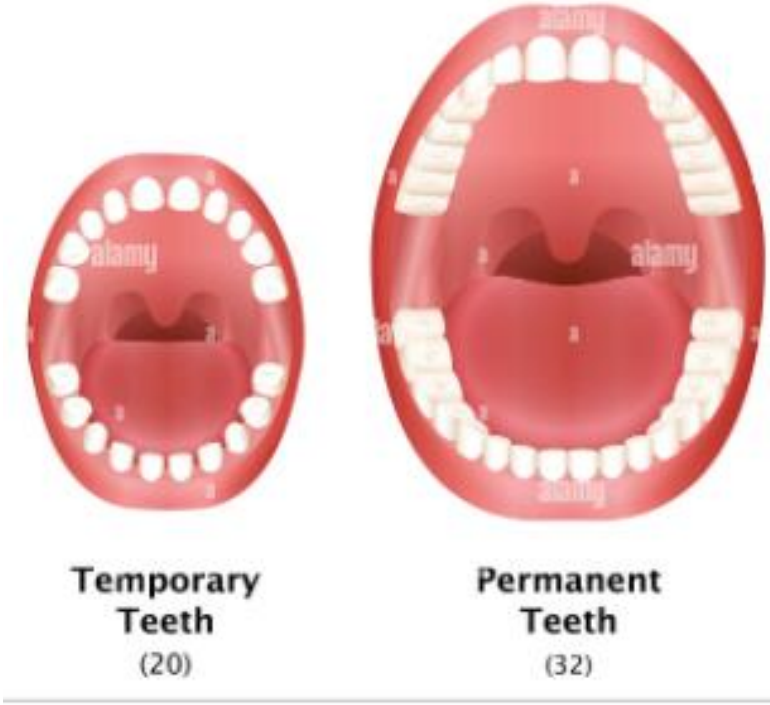
- Diphyodont
- A tooth consists of three parts
  - Crown
  - Root
  - Neck
- Structure of tooth
- Types

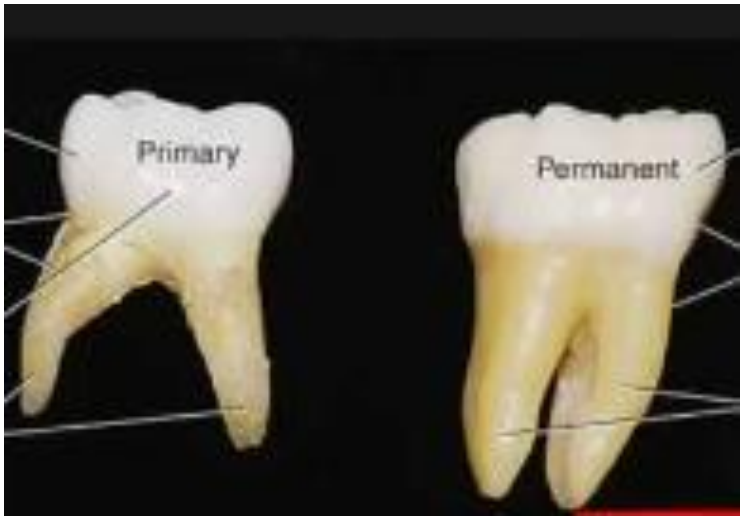




Forensic Odontology

- **Two sets of teeth**
  - Temporary
  - Permanent
- **Differences b/w two sets**
  - No. premolars, size, neck, ridge,
  - Edges, molars, replaced by, X-ray
- **Temporary dentition**
  - Intrauterine
  - Beginning
  - At various ages
  - Mixed dentition period





Forensic Odontology

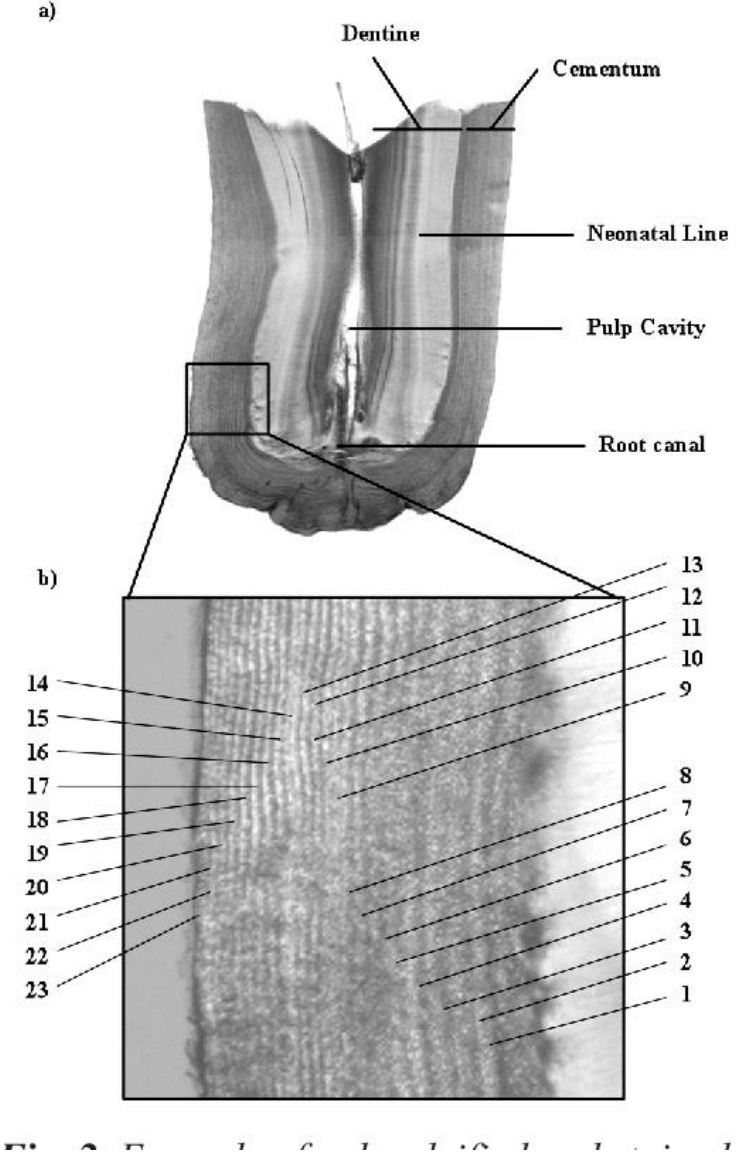
- **Permanent dentition**
  - Beginning
  - Molars
  - Calcification of roots
- **Time of eruption**
  - Temporary
  - Permanent
  - Spacing of jaw
- Superadded teeth
- Successional teeth
- Impacted tooth

Forensic Odontology

- **Age from teeth**
  - Nature of teeth
  - Number of teeth
  - Eruption of teeth
  - Laboratory methods –

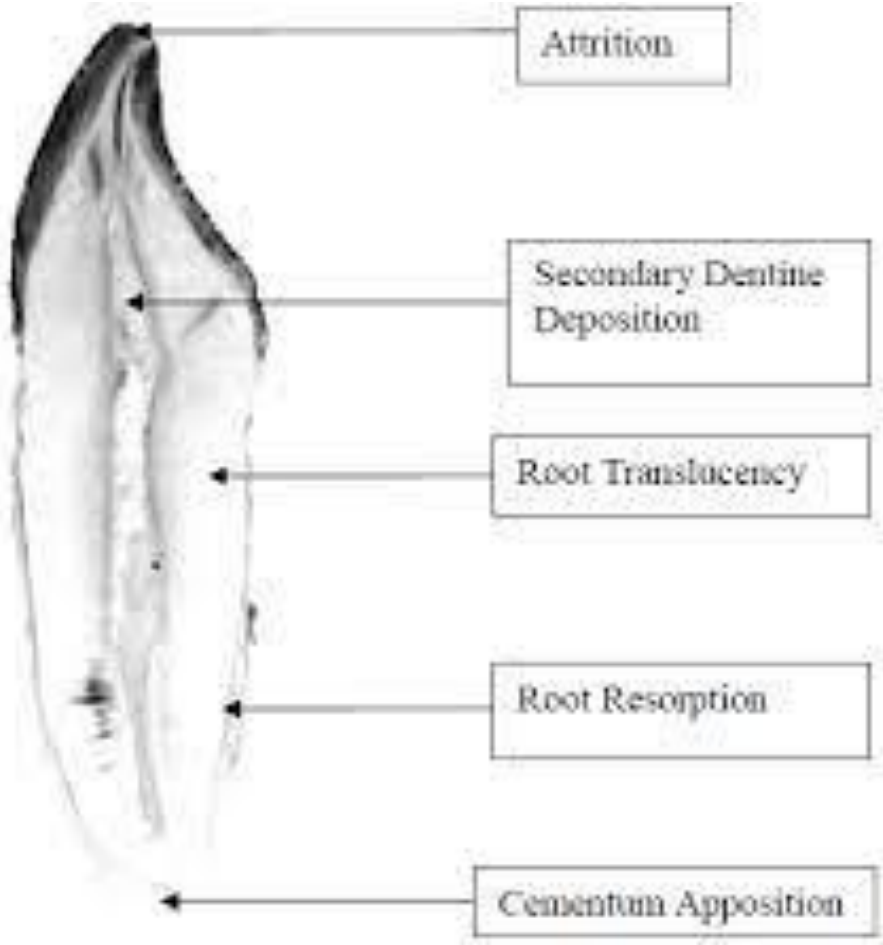
    (Boyde's method,

    Stack method, Gustafson's method)

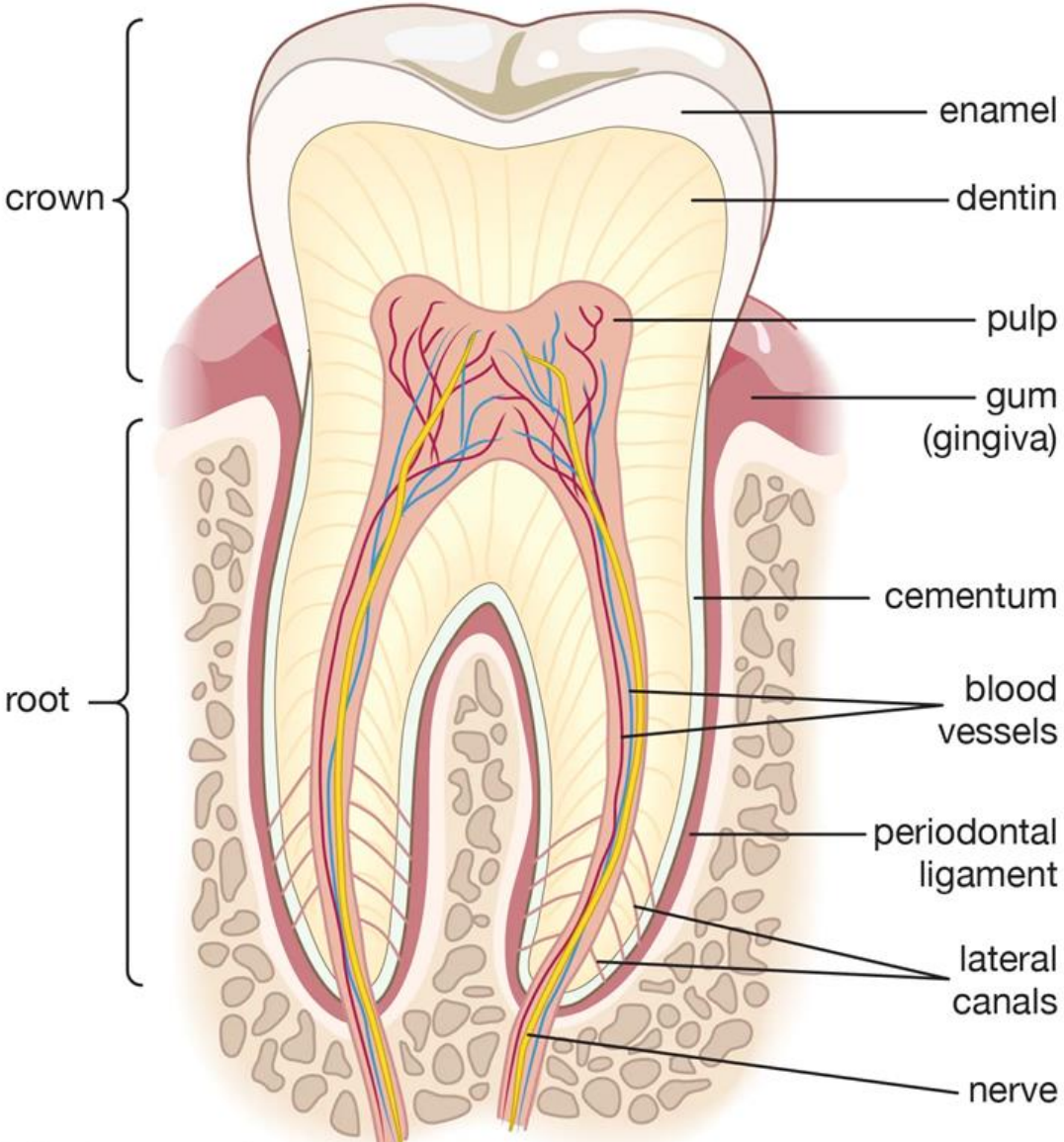


Forensic Odontology

- **Gustafson's method**
  - Attrition
  - Periodontosis
  - Secondary dentin
  - Cementum apposition
  - Root resorption
  - Root transparency



Forensic Odontology



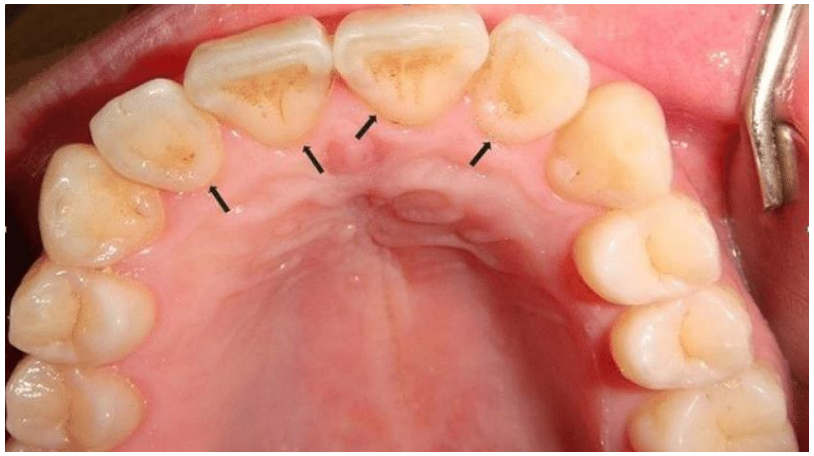
Forensic Odontology

- **No. of permanent teeth & age in years**
  - 5 years , 6 years
  - 12 years, 17-25 years
- **Estimation of age from teeth**
  - Chemical method
    - Nitrogen content of enamel
    - Carbonate content
    - Cu, Se and Fe
  - Radiocarbon dating

Forensic Odontology

- **Information from Teeth**
  - Age estimation
  - Sex determination
  - Race
    - Carabelli's cusp
    - Enamel pearls
  - Social status
  - Occupation

Forensic Odontology



Bite Marks

- Nature of bite marks
  - Assaults
  - Sexual assault
  - Sporting events
  - Child abuse
  - Police custody

Bite Marks

- **Bite mark investigation**
  - Photograph
  - Swabbing of saliva:
  - Impression of bite mark
  - Skin

Forensic Odontology