

MANDIBULAR FIRST PREMOLAR

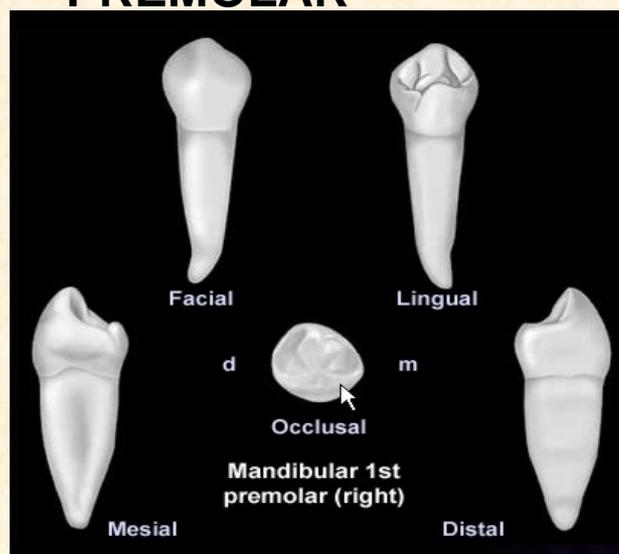
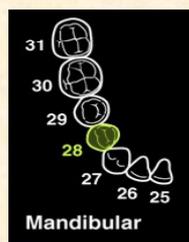
By:-

Dr. Gaurav Sapra MDS

Department of Oral Pathology & Microbiology,
Institute of Dental Sciences, Bareilly

MANDIBULAR 1st PREMOLAR

- Fourth tooth from midline
- 1st posterior tooth in the mandibular arch
- Located between canine & 2nd premolar, resembling both



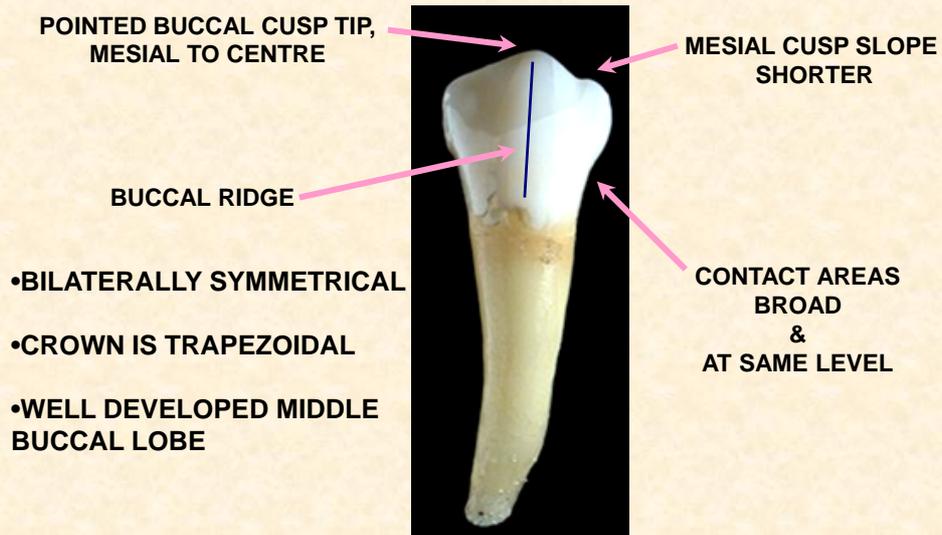
<u>CHARACTERISTICS RESEMBLING CANINE:</u>	<u>CHARACTERISTIC RESMBLING 2nd PREMOLAR</u>
BUCCAL CUSP – LONG, SHARP & FUNCTIONAL	OUTLINE FORM OF BUCCAL ASPECT SIMILAR TO 2 nd PREMOLAR
Bu – Li MEASUREMENT SIMILAR TO CANINE	CONTACT AREAS AT THE SAME LEVEL
OCCLUSAL SURFACE SLOPES LINGUALLY IN A CERVICAL DIRECTION	CURVATURE OF MESIAL & DISTAL CERVICAL LINES ARE SIMILAR
M-Bu CUSP RIDGE SHORTER THAN D-Bu	TOOTH HAS MORE THAN ONE CUSP
OCCLUSAL ASPECT	

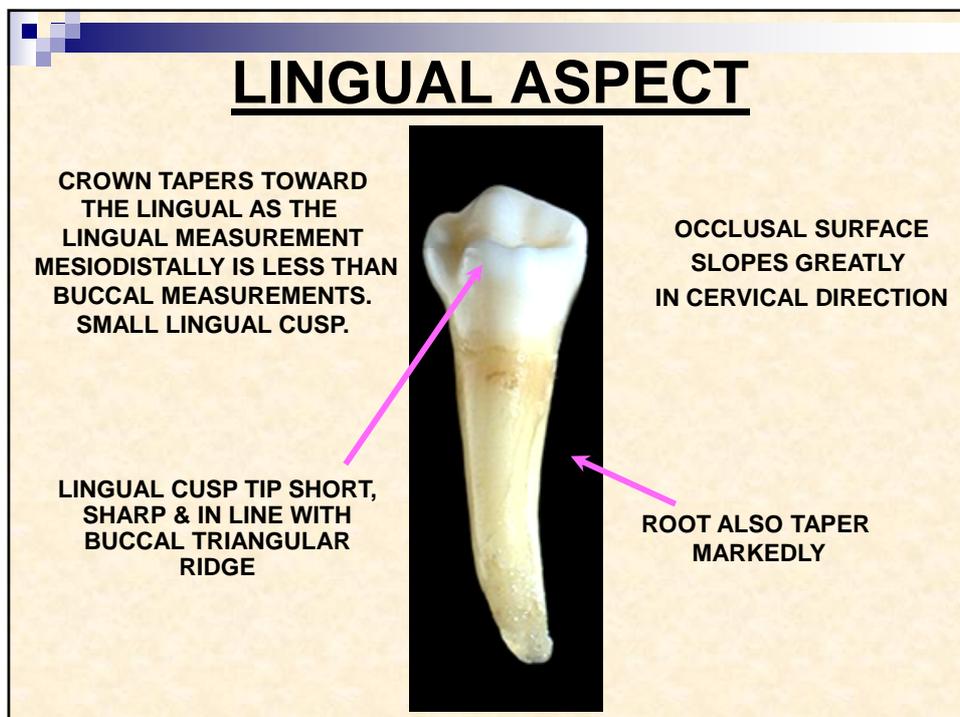
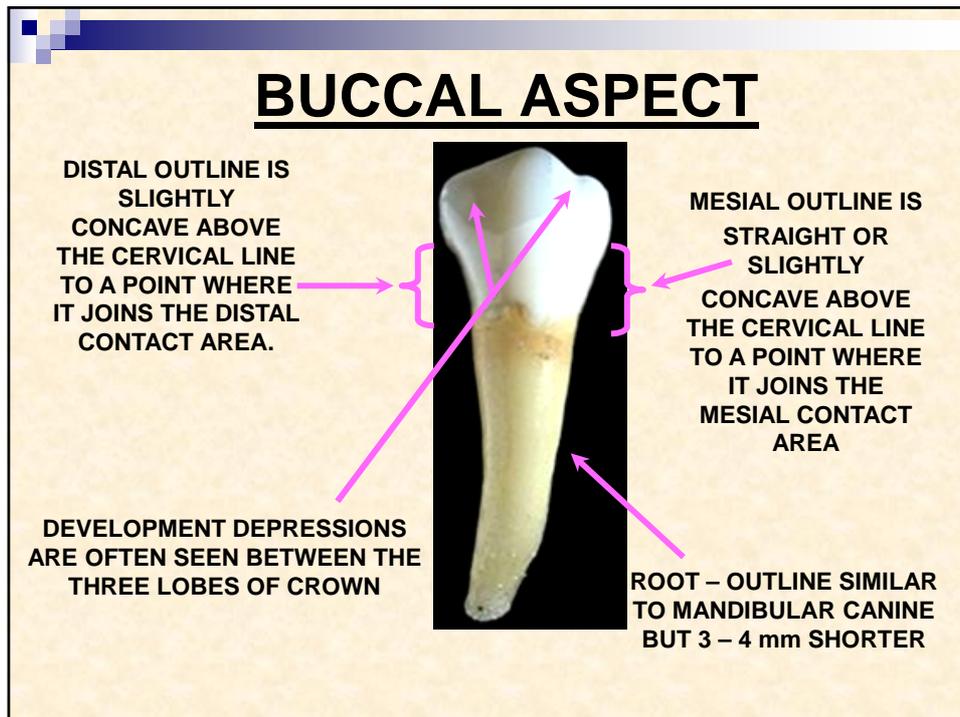
<u>CHRONOLGY</u>	
■ 1 st EVIDENCE OF CALCIFICATION	1 3/4 – 2 Yr
■ ENAMEL COMPLETED	5 – 6 Yr
■ ERUPTION	10 – 12 Yr
■ ROOT COMPLETED	12 – 13 Yr

DIMENSIONS

■ CERVICO OCCLUSAL LENGTH OF CROWN	: 8.5
■ LENGTH OF ROOT	: 14.0
■ M – D DIAMETER OF CROWN	: 7.0
■ M – D DIAMETER OF CROWN AT CERVIX	: 5.0
■ Bu – Li DIAMETER OF CROWN	: 7.5
■ Bu – Li DIAMETER OF CROWN AT CERVIX	: 6.5
■ CURVATURE OF CERVICAL LINE	MESIAL : 1.0 DISTAL : 0

BUCCAL ASPECT





LINGUAL ASPECT

CLASSIC FEATURE
MESIOLINGUAL DEVELOPMENT GROOVE
"IT IS A DEMARCATION BETWEEN MESIOBUCCAL LOBE & LINGUAL LOBE, EXTENDING INTO MESIAL FOSSA OF OCCLUSAL SURFACE"

■ MESIAL & DISTAL OCCLUSAL FOSSAE ON EITHER SIDE OF TRIANGULAR RIDGE VISIBLE
■ CONTACT AREAS & MARGINAL RIDGES PRONOUNCED

CERVICAL PORTION IS NARROW. ALSO SHOW CONCAVITY BETWEEN CERVICAL LINE AND CONTACT AREA

ROOT NARROW, CONVERGENT, SMOOTH & CONVEX TAPERS EVENLY

MESIAL ASPECT

CROWN OUTLINE ROUGHLY RHOMBOIDAL
CROWN APPEARS TO OVERHANG ABOVE ROOT TRUNK IN A LINGUAL DIRECTION

BUCCAL OUTLINE CONVEX
LINGUAL OUTLINE LESS CONVEX

BUCCAL CUSP TIP CENTERED OVER ROOT & LINGUAL CUSP TIP IS IN LINE WITH LINGUAL OUTLINE OF ROOT

CONTACT AREAS MIDDLE 1/3 rd

