

(Association)

- The broadest anterior tooth → upper permanent central incisor.
(Mesiodistal thickness smallest)

- Upper permanent central incisor have mamelon.

- Mesial Aspect cervical line in upper permanent central incisor greater than any other teeth in the mouth.

- Upper permanent lateral Incisor may be Missing or Malignant.

- Lower permanent central incisor ⇒ smallest Among all permanent teeth.

- Lower permanent central incisor Mesial and Distal contact area in Incisal third.

- teeth can be shading by rounded or oval → upper central incisor and lower 1st premolar.

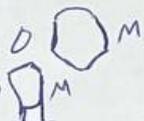
- Lower permanent central incisor ⇒ in Incisal Aspect mesial and distal halves identical and the incisal edge is perpendicular to line bisecting the crown labiolingually but lower permanent lateral incisor mesial and distal halves not-identical and incisal edge make angle

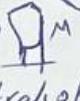
- Lower permanent lateral incisor → incisal edge straight and sloped downward toward distal surface to make mesial Incisal Angle (acute)
→ Cingulum is inclined toward distal surface to make room for burge.

- Canine → Corner stone and have one cusp (cuspid teeth)
→ largest tooth and root

- Upper permanent Canine has two lingual fossae mesial and distal to the lingual ridge.

- Lower permanent Canine has kidney shape lingual fossae.

- Upper permanent Canine mesial outline and distal outline  * Mesial slope shorter than Distal

- Lower permanent Canine mesial outline and distal outline 

- Canine ⇒ Upper cusp tip labial and mesial to the center of the crown.

⇒ Lower cusp tip lingual and mesial to the center of the crown.

⇒ Upper mesial slope and Distal make line.

⇒ Lower mesial slope and Distal make angle.

- premolar 1st, 2nd are succedaneous teeth that replace the 1st, 2nd deciduous molars.

- Upper 1st premolar → sharp cusp tip (2)
→ mesial slope longer than distal slope
→ lingual cusp shorter than buccal cusp by 2mm
→ has Mesial marginal developmental groove # begin at occlusal surface mesial to triangular fossa and cross the mesial marginal ridge to fade out on the mesial surface at middle 3rd.
→ root trunk at middle third in mesial and Apical third in distal.
→ Buccal cusp tip in one line at the center of the buccal root.

- Upper 2nd premolar → blunt cusp tip (2)
→ mesial slope shorter than distal
→ lingual cusp equal to buccal cusp.
→ sulcus on 2nd premolar wider than 1st premolar.
→ have Multiple supplemental groove.

- lower 1st premolar
 - Lingual cusp 2/3 of buccal cusp length.
 - has mesiolingual development groove
 - mesial slope shorter than distal slope.
 - mesial Marginal ridge sloped lingually
 - Distal Marginal ridge perpendicular.
- lower 2nd premolar
 - mesial and distal contact area on occlusal third.
 - if it has three cusp CDG with LDG, make Y shaped grooves
 - if it has two cusp CDG may be H or U shape
 - Mesial and Distal fossae are round.
- Upper 1st permanent molar
 - Key of occlusion → ^{first permanent erupted by age} fixed to the skull
 - have four cusp (ML > MB > DB > DL)
 - root trunks → 4mm
 - palatal root (banana root -)
 - Cusp of carabelli → lingual surface of mesiolingual cusp.
 - have 5 DG (CDG, LDG, DDG, BDG, TDG) and 4 fossae.
- Upper 2nd permanent molar
 - root similar to 1st molar but parallel
- Upper 3rd permanent molar
 - root fused together.
 - may be have three cusp heart shaped occlusal geometry
 - more supplemental groove
- lower 1st permanent molar
 - has 5 cusp (MB > ML > DL > DB > D)
 - have 4 DG, 3 fossae
- lower 2nd permanent molar
 - root similar to 1st molar but parallel
 - have 4 cusp equal (cross shape) →
 - Mesial and distal contact area on middle third.
- lower 3rd permanent molar
 - root fused together.

- Number of roots :-

1. One root → anterior permanent and deciduous teeth
↳ Upper 2nd premolar
↳ lower 1st, 2nd premolar
2. Two roots → lower permanent and deciduous molar
↳ Upper 1st premolar
3. Three roots → Upper permanent and deciduous molar.

- Number of lobes :-

1. Teeth formed from 4 lobes → all teeth except
 2. Teeth formed from 5 lobes → Upper and lower 1st permanent molar
↳ Upper and lower 2nd deciduous molar
↳ lower 2nd premolar
- * Upper 1st permanent molar twins Upper 2nd deciduous molar.
* Lower 1st permanent molar twins lower 2nd deciduous molar.

- Number of Cusp :-

1. One cusp in Canine.
2. Two cusp in premolar except
3. Three cusp in lower 2nd premolar.
4. Four cusp in upper molar and lower 2nd, 3rd molar.
5. Five cusp in lower 1st permanent molar and may be 3rd molar

- Geometrical outline :-

1. All labial buccal and lingual Aspect → trapezoid
2. All proximal aspect of anterior teeth → triangular
3. All proximal aspect of upper posterior teeth → trapezoid
4. All proximal aspect of lower posterior teeth → rhomboidal.
5. Incisal aspect of upper central and lateral incisor → triangular
6. Incisal aspect of lower central and lateral incisor → Diamond.
7. Incisal aspect of Canine → rhomboidal.
8. Occlusal aspect of upper 1st premolar → Hexagonal
9. Occlusal aspect of lower 1st molar → pentagonal.
10. Occlusal aspect of upper 2nd and lower 1st premolar → rounded
11. Occlusal aspect of lower 2nd premolar → square.
12. Occlusal aspect of upper 1st, 2nd, 3rd molar → rhomboidal but 3rd may be heart
13. Occlusal aspect of lower 2nd, maybe 3rd → rectangular
↓
may be pentagonal