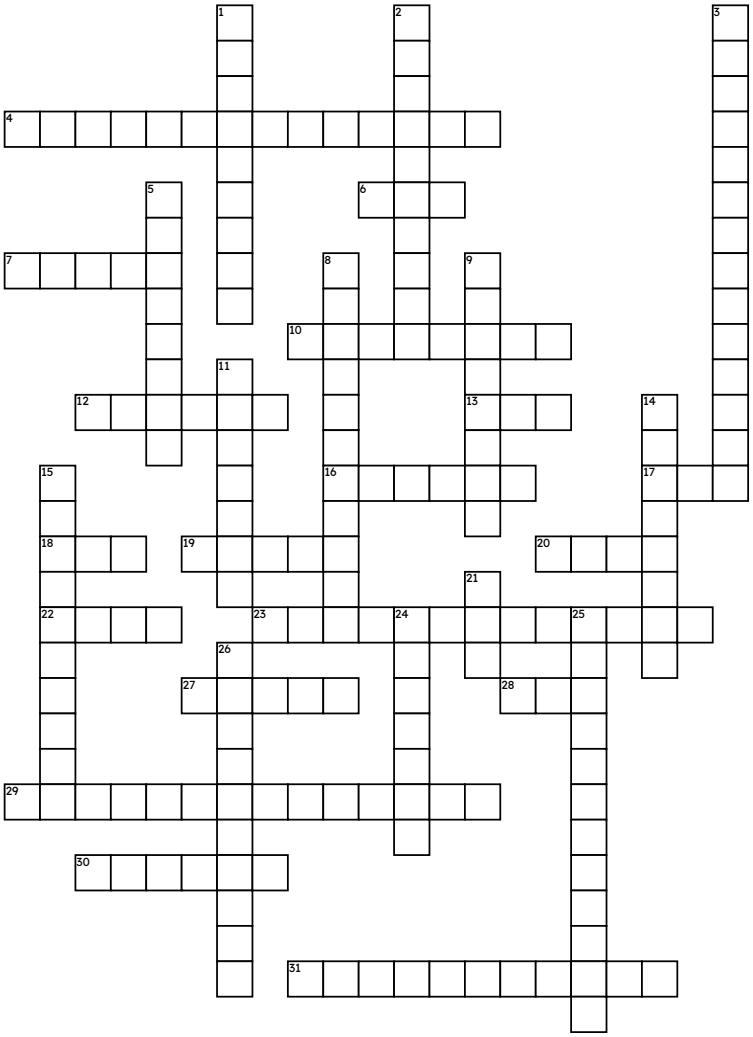
Name: _____ Date: _____

Jamil Enamel



Across

4. The 1st wave of enamel mineralization occurs in the incisal/occlusal part of the future crown nearer to the DEJ and moves to the _____ surface.

6. Tomes process has a _____ sided pyramidal shape.

7. The enamel rod is also known as the enamel _____.

10. The _____ line is a pronounced incremental line of Retzius, & marks trauma experienced by the ameloblasts during birth.

12. _____is a crystalline material and is the hardest calcified tissue in the human body.

13. Tomes process is the secretory surface of the ameloblast the faces the _____.

16. On enamel, a prominent groove that can be found on the lateral incisor is also known as a lateral _____.

17. Enamel matrix is an ectodermal product, because ameloblasts are derived from the _____of the enamel organ, which was originally derived from the ectoderm of the embryo.

18. Mineralization of enamel matrix to a fully matured tissue covers how many stages of tooth development?

19. The enamel _____ are microscopic features & are noted as small, dark brushes with their bases near the DEJ

20. Tomes process is responsible for the way the enamel matrix is _____down.

22. The enamel ____ is the crystalline structural unit of enamel; thus enamel is composed of millions of enamel _____.

23. After the enamel cusp tip erupts through the oral mucosa, ameloblasts are lost forever as the fused tissue _____ during tooth eruption, preventing any further enamel appositional growth.

27. The enamel matrix is secreted from each ameloblast from its _____ process.

28. After the ameloblast are finished with both enamel appositional growth & maturation, they become part of the?

29. Surrounding the outer part of each enamel rod is the _____ region (interrod enamel).

30. The REE will later fuse with the oral _____,creating a protective tunnel to allow the enamel cusp tip to erupt.

31. The lines of Retzius are rasied _____ lines & grooves of perikymata on the nonmasticatory surfaces of the teeth.

Down

1. During the apposition stage the enamel matrix is only _____mineralized at approximately 30%.

2. Amelogenesis occurs during what stage of tooth development?

3. Crystal formation of mature enamel consists mainly of calcium _____.

5. The enamel _____ are partially mineralized vertical sheets of enamel matrix that extend from the DEJ near the tooth's cervix to the outer occlusal surface.

8. Enamel matrix is produced by _____ during it secretory phase.

9. Enamel is derived from which germ layer?

11. Lines of _____ are the incremental lines on how enamel was laid down & are only found in mature enamel (rings of trees).

14. The enamel _____ are microscopic features of mature enamel & represent short dentinal tubules near the DEJ

15. During the _____ stage of tooth development, enamel matrix completes its mineralization process to its full level of 96%.

21. The 2nd wave of enamel mineralization overlaps the 1st wave as the process moves cervivally to the forming _____.

24. The fused tissue can later become part of the _____ membrane.

25. _____ is the formation of enamel matrix.

26. When ameloblasts become part of the REE along with other tissue types of the _____ enamel organ.

Word Bank

Spindles	Apposition	Partially	CEJ	Disintegrates	Maturation
hydroxyapatite	Amelogenesis	LAVERY	REE	Mucosa	Lamellae
Rods	Nonmasticatory	Retzius	Neonatal	Ameloblasts	prism
Compressed	Tomes	Enamel	six	Tufts	Nasmyth
Ectoderm	Imbrication	IEE	laid	Interprismatic	DEJ
two					