

Name: _____

Date: _____

Period: _____

Semester 2 Concept Map

Week # _____

Digestive System

Pathway of Food

1. _____
2. Esophagus
3. _____
4. _____
5. _____
6. Rectum and anus

Type of Digestion

1. _____
2. None
3. chemical, mechanical
4. _____
5. None
6. None

7. Nutrients are absorbed in the _____ while water is absorbed in the _____.

8. If you consume too much sugar, blood _____ levels can remain high during the day. This condition is _____.

Integumentary System

9. Refers to the _____

10. More melanin, means _____ risk of skin cancer, but _____ risk of vitamin D deficiency.

Respiratory System

11. Function: to pick up _____ from the air we breathe and exhale _____ into the air.

Immune System

12. If a virus enters the body, it must _____ a healthy cell and force the cell to make more _____.

Circulatory System

13. Made of:

- red blood cells, that carry _____
- _____, that fight infection
- _____, that transports cells
- platelets, that cause blood to _____

14. Adding more _____ can enhance athletic performance, which is _____.

Nervous System

15. Addictive substances, like drugs and _____ are used/ingested, neurons in the _____ of the brain are stimulated and strengthened.

DNA

16. Nucleotides are held together by _____ bonds.
Strands are held together by _____ bonds

17. Complete the table based on complementary base pairing

Percentages of Nucleotides				
Source of DNA	A	T	G	C
Yeast	18			
Herring	29			
Human	24			

Transcription

vs.

Translation

Occurs in:

18. _____

19. _____

Purpose:

20. DNA to _____

mRNA to amino acid

Done by:

RNA polymerase

21. _____

Example:

22. Transcribe:
DNA: G G A T A G
mRNA: _____

23. Translate:
mRNA: _____
aa: _____

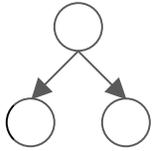
Name: _____

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Mitosis vs. Meiosis

Picture:



24. _____

Daughter cells are:

25. _____ and exactly the same

26. _____ and different.

Number of chromosomes:

Same as original cell

27. _____ as many as original cell

Purpose:

To make new cells

28. To make _____ cells

Punnett Squares and Pedigrees

30. Tongue rolling is dominant (T) over no tongue rolling. Show the Punnett square for two heterozygous parents.

31. Probability for each:
 TT: _____%
 Tt: _____%
 tt: _____%
 Tongue rolling: _____%

32. A man who has O blood and a woman who is heterozygous for B blood have kids. Show the Punnett square.

33. Probability for each:
 O blood: _____%
 B blood: _____%
 A blood: _____%
 Heterozygous: _____%

34. Hunter syndrome is sex-linked recessive (h). Show the Punnett square for a carrier woman and affected man.

35. Probability for each:
 Affected: _____%
 Normal: _____%
 Carrier: _____%

Blood Types

29. Fill in the table below.

Type	Genotype	Antigen	Receive	Donate
A			A, O	
		B		B, AB
	AB			
O		none		A, B, AB, O

36. A red flower (RR) is crossed with a white flower (rr). Show the Punnett square for two heterozygous flowers.

37. Probability for each:
 Red: _____%
 Pink: _____%
 White: _____%
 Heterozygous: _____%

38. Pink flowers is an example of _____, but if the flowers were red and white spotted, this would be _____

39. Fill in the key for the pedigree:



unaffected male



carrier male



affected male



unaffected female



carrier female



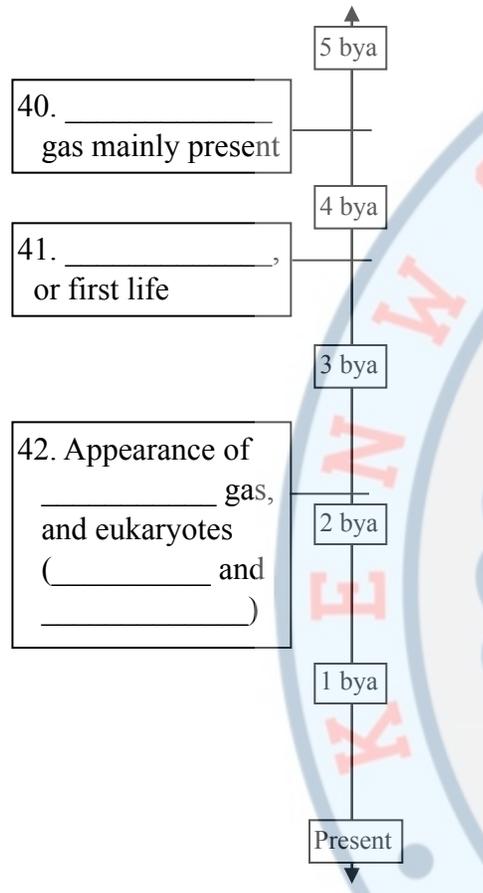
affected female

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Earth's Early History



Origin of Life

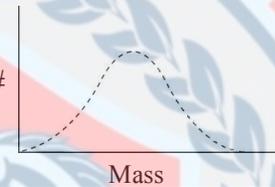
43. Four theories:
- From RNA
 - From deep sea _____
 - Brought to earth from _____
 - From organic chemicals

Natural Selection

44. An organism's _____ is how well it can survive and _____ in its environment.

46. Adaptations increase an organism's ability to survive, but they must be _____

48. If smaller organisms became more fit, draw a line on the graph to show how the population would change



45. The more fit an organism, the more _____ it has that then reproduce.

47. Since organisms have different adaptations, there is _____

49. A change like this would take _____ of generations.

Dating

50. _____ dating: estimates age by comparing rock layers to determine if fossils are older or younger than others

51. _____ dating: uses radioactive isotopes to calculate exact age of a fossil

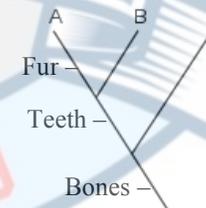
52. Use K-40, half-life of 1.25 billion years, given 3 radioactive, 21 decayed grams.

Evidence for Evolution

53. - _____ structures: similar structures but different functions
- _____ structures: no longer function
- _____: similar development
- _____ similarities: more alike, more related

54. All are evidence of a _____

Classification



55. _____ and _____ are most related and share the _____ common ancestor

56. B and C do not have _____

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