ANSWER KEY:

1. 0%
2. 100%
3. 75%
4. 1:2:1
5. 3:1
6. ¼
7. ¼
8. 9:3:3:1
9. BBww
10. 4:4:4:4
11. 100% (Male will only pass on Y chromosome, so he can't give the offspring a dominant allele, therefore all males will have long tails).
12. TT
13. Phenotype
14. Genotype
15. Phenotype
16. False
17. False
18. False
19. False
20. False
21. Prophase
22. Prometaphase
23. Metaphase
24. Anaphase
25. Telophase
26. Anaphase
27. Prophase
28. 3
29. 2
30. M-Phase/ Mitotic-Phase
31. Homologous
32. Random orientation of homologous pairs at metaphase I.
33. 1.Random orientation of homologous chromosomes OR 2.Recombination/crossing-over during Prophase I.
34. Zygotene
35. Only 1 viable gamete is produced
36. Incomplete Dominance
37. Codominance or Incomplete Dominance.
38. Simple Dominance
39. Codominance
40. Simple Dominance
41. Pleiotropic
42. Recessive lethal allele
43. All homozygous dominant coated mice die as embryos, so ¼ of offspring die and do not appear in the phenotypic ratio, leaving 2 yellow coated mice for every 1 brown coated mouse.
44. E
45. Incomplete dominance
46. 0%
47. Recessive epistasis
48. ⅛
49. ⅜

50. Polygenic (trait)
51. DNA
52. Nondisjunction; Aneuploidy
53. Monosomy X/Turner's Syndrome
54. Short stature, non-functional ovaries, webbed neck, heart defects, lymphedema of hands/kidneys.
55. No, since people with Turner's Syndrome have only 1 sex chromosome, the X chromosome. This means that they are female. Males always have a Y chromosome at their sex chromosome pair, and since a person with this syndrome can only have 1 X chromosome, than males cannot be affected.
56. Trisomy 21/Down Syndrome
57. Intellectual disability (usually mild-moderate), hypotonia (weak muscle tone, or amount of tension/resistance to stretch in muscle) in infancy, May have hearing loss, heart defects, obstructive sleep apnea; Physical characteristics:Flattened face (especially at nose bridge), upwards-slanting almond shaped eyes, short neck, small ears & hands & feet & pinkies, shorter height, tiny white spots on iris.
58. Cri du Chat/5p- syndrome
59. Deletion mutation
60. The high pitched cry of infants that sounds like a cat.
61. Klinefelter's Syndrome
62. Male
63. Monogenetic disorder
64. Excessive loss of salt through sweat. Since water naturally moves to areas with a higher salt concentration, the body is unable to retain enough water to keep mucus & other fluids thin enough.
65. Airway clearance; inhaled medicines (to get rid of mucus); pancreatic enzyme supplements to help absorption of nutrients.
66. rr
67. Rr
68. The parent individuals are carriers of the trait.
69. Y-linked
70. X-Linked recessive Inheritance
71. Deoxyribonucleic acid
72. Nucleotide
73. Thymine & Cytosine
74. Purines have a 2 ring structure, pyrimidines only have 1 ring.
75. 2' or 2 prime
76. Phosphate/sugar; phosphate/sugar
77. Phosphates; sugars
78. Phosphodiester (bond)
79. It uses a ribose sugar instead of a deoxyribose sugar.
80. Adenine bonds with Uracil instead of Thymine.
81. Semiconservative
82. DNA Polymerase
83. Helicase
84. Preventing the helix from forming knots.
85. 5' —> 3'
86. Leading Strand
87. Lagging Strand
88. Initiation
89. Elongation
90. Termination
91. Initiation
92. Elongation

93. More than one codon can code for the same amino acid.
94. The Ribosome
95. The P-Site (Peptidyl Site)
96. AUG. Tells the ribosome where to start reading the mRNA.
97. 1.tRNA must be given the right amino acid (charging) & 2.Ribosome must assemble itself at the start codon of the mRNA.
98. The acceptor arm.
99. The release factors.
100. At the third base pair, bases can be paired with other bases outside of the their normal complement, which allows a tRNA to bond with multiple codons. This allows different spellings to code for the same amino acids.