Spaying & Neutering Notesheet *by C. Kohn*

Name: Hour Date:

Date Assignment is due: Why late? Score: + ✓ -
 Day of Week Date If your project was late, describe why

**Directions**: use the accompanying PowerPoint (*available online*) to complete the questions below. This sheet will be due upon the completion of the PowerPoint in class. These assignments are graded on a +/✓/- scale.

1. What are three reasons that spaying and neutering is a good idea?
2. The spaying or neutering is performed, the
3. This is a choice that should be made for
4. Why are neutered/spayed animals better pets?
5. An unneutered male dog is
6. Unneutered males are also more likely to
7. Unneutered male cats may have
8. Unspayed female cats go
9. During this \_\_\_\_\_\_\_\_\_ day period, the cat may
10. Unspayed female dogs may
11. Unspayed or unneutered pets will also
12. What is cell mitosis?
13. What are the major disadvantages of sexual reproduction?
14. What is the main advantage of sexual reproduction?
15. Through sexual reproduction, a species is more likely to
16. Genetic diversity also enables
17. It is only through

that species are able to
18. Almost all eukaryotic cells are . What does this mean?
19. What is a chromosome?
20. Different species have
21. Is DNA normally found in chromosomes? When would we find chromosomes?
22. DNA needs so that the genes can be
23. When DNA is packed into these
24. Packing DNA into chromosomes allows it to be evenly between
25. What is a gamete?
26. Each gamete has
27. Why is this necessary?
28. What is meiosis?
29. Draw meiosis in the space below (use the image on the slide):
30. The process of creating sperm cells is called
31. In males,
32. What are spermatogonia?
33. Spermatogonia are germ cells. What are germ cells?
34. Meiosis has two stages. Summarize each below:

Meiosis I:

Meiosis II:
35. Before of begins, all DNA is

packed into
36. Each spermatogonium germ cell begins with
37. After doubling the DNA, there will now be
38. A chromosome normally looks like a
39. Once the DNA has been doubled, it causes the
40. During Meiosis I, each pair of chromosomes
41. What is are homologous chromosomes?
42. What is crossing over?
43. Why is this necessary?
44. Draw crossing over below (based on the image on the slide):
45. Instead of passing on a

crossing over enables
46. This allows for more than if
47. After crossing over occurs,
48. The cell , creating

Each of the two new cells has
49. In Meiosis II, the two cells
50. The two cells that

have now become
51. These four cells become
52. Draw the stages of Meiosis of spermatogonium in the space below (use the image on the slide). Label each part:
53. Once the sperm cells form, they must

in order to
54. Sperm cells are formed in the .
55. What are the testicles?
56. What is the scrotum?
57. Why are the testicles found outside the body?
58. What happens if the sperm get too warm?
59. The testicles are made of coiled tubules called
60. The is where
61. During intercourse, the sperm is moved into , a long
62. The adds additional that
63. What is semen?
64. From the , the sperm cells and fluids enter the , which runs
65. What is the glans penis?
66. How is a dog’s penis unique?
67. What is the purpose of the bone in the dog’s penis?
68. What is a prepuce?
69. During intercourse, the semen will be

into
70. What is the path of semen from ejaculation to fertilization?
71. How is the production of eggs in a female different from the production of sperm in males?
72. Meiosis II then occurs

until
73. Why is a female more likely to have offspring with genetic abnormalities as she gets older?
74. What is the second difference between meiosis in females compared to males?

1. Why must the eggs be larger than the sperm?
2. Because the egg cell needs to be , the meiosis only
3. During Meiosis I, the doubled-chromosomes are split
4. Most of the goes to
5. Half of the and just go to

 ( )
6. Polar bodies ensure that

by
7. What happens to the polar body?
8. During Meiosis II, the cell with again splits,

this time forming
9. Draw the stages of meiosis of egg cells and polar bodies in the space below (using the image on the slide):
10. Where do the stages of meiosis that produce the eggs occur in the reproductive tract?
11. Eggs are released into the (or ), where

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ takes place.
12. If fertilized, the egg (now called a ) will move into the

and implant on the
13. What does the cervix do?
14. What is the function of the vagina?
15. What is the function of the vulva?
16. What do the ovaries do in addition to producing the eggs?
17. How often do dogs go into heat?
18. Spaying and neutering ensure that without
19. Spaying and neutering procedures are designed to be while ensuring
20. Most pets are able to be after a spaying or neutering operation

with
21. Most neutering procedures can be completed
22. A neutering process begins with to ensure there will be
23. Next, the dog undergoes to ensure that it will not

\_
24. Once asleep, a tube is to ensure that
25. The tube delivers both
26. The scrotum is to prevent
27. An incision is made and both

are removed
28. The leading to the are

and the
29. How soon can an animal usually go home after neutering?
30. What two minor problems might occur after neutering?
31. If the dog licks or bites at the stiches, it will need
32. How long after the operation are the stitches removed?
33. Why should a professional remove the stitches?
34. What about the glands, the production of semen, and the rest of the male reproductive tract? Why can those stay in the dog?
35. What is another term for spaying?
36. Where is the incision made for a spaying operation?
37. The midline is used because
38. Once the incision is made, and the uterine horn is located, what is the first step?
39. Once the blood supply has been sutured, what happens next?

1. Why is a spaying procedure more at risk for complications?
2. What are two possible complications that can result from a spaying procedure?
3. If a spaying procedure is more at risk for complications, why is it still a good idea to get an animal spayed?

Unit Wrap-up C. Kohn, Agricultural Sciences - Waterford WI

This page is designed to help raise your grade while enabling you to develop skills you will need for after high
school. You will need to complete every question and blank in order to receive full credit for your notes. Note: if you cannot come up with a strategy to remember a difficult concept on your own, see your instructor for help.

1. What is a topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:
2. What is a 2nd topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:
3. What is a 3rd topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:
4. Circle the most appropriate response. You will only be graded on whether or not you completed this section, so be entirely honest with yourself when completing this section.

Circle one: *I used my notes outside of class to prepare for the quiz.* Definitely – Yes – Sort of - No

Circle one: *I took extra notes in the margins for very difficult concepts.* Definitely – Yes – Sort of - No

Circle one: *I created a personal strategy for at least three difficult items.* Definitely – Yes – Sort of - No

Circle one: *I was very involved and actively studying during the quiz review.* Definitely – Yes – Sort of - No

Circle one: *I think I will be satisfied with the quiz grade I received this week.* Definitely – Yes – Sort of - No

Circle one: *I might need to meet with the instructor outside of class.* Definitely – Yes – Sort of - No