**4-H EMBRYOLOGY ANDI INCUBATION IN THE CLASSROOM PROGRAM**

**SELECTION OF QUESTIONS FOR POSSIBLE EGGS**

1. How long does it take for chick eggs to hatch once they are put in the incubator?
   1. 14 days
   2. 18 days
   3. 21 days
   4. 28 days
2. What is the ideal incubating temperature for chicken eggs?
   1. 95.0°C
   2. 95.0°F
   3. 99.5°C
   4. 99.5°F
3. What part of the egg becomes the chicken embryo?
   1. Yolk
   2. Albumen
   3. Germinal disc
   4. Chalazae
4. Why is it important to turn the eggs regularly during incubation?
   1. To warm the eggs evenly
   2. To prevent the embryo from sticking to the side of the chick
   3. To prevent embryo death and malformed chicks
   4. B and C
5. When do you stop turning the eggs?
   1. Day 14 of incubation
   2. Day 16 of incubation
   3. Day 18 of incubation
   4. Day 20 of incubation
6. What does ‘candling’ mean?
   1. Making candles
   2. Using light to look in the egg
   3. Cooking an egg with a candle
   4. All of the above
7. When candling incubating eggs, what does it mean when the eggs appear clear?
   1. Infertile
   2. Early death of embryo prior to start of blood formation
   3. The egg is rotten
   4. A and B
8. How long should you leave a chick in the incubator after it has hatched?
   1. 10 minutes
   2. 10 hours
   3. As soon as the last chick is dry
   4. 1-2 days
9. What three environmental factors are important during incubation?
   1. Humidity, Temperature, Ventilation
   2. Humidity, Sound, Temperature
   3. Sound, Temperature, Light
   4. Light, Humidity, Temperature
10. What does ‘pipping’ mean?
    1. Putting egg in the incubator
    2. Looking at the egg with a light
    3. Turning egg from side to side
    4. Chick breaking through the eggshell
11. Can you have too much humidity in an incubator?
    1. No, it doesn’t matter
    2. Yes, but only if you haven’t washed your hands
    3. Yes, too much humidity can kill the embryo
    4. No, it is important that the eggs don’t dry out
12. How do pores in the eggshell do?
    1. Allow the egg to breath
    2. Allow light into the egg
    3. Allow food into the egg
    4. Allow the egg to sweat
13. What is the purpose of the air cell in the egg?
    1. To tell you which end is up
    2. To give the chick light
    3. To give the chick a place to breathe before hatching
    4. To cushion the embryo
14. What does hatchability mean?
    1. Percent eggs that produced viable chicks
    2. Number of eggs placed in the incubator
    3. Percent eggs to pip
    4. Percent of fertile eggs that produced viable chicks
15. Why should you NOT keep opening the incubator?
    1. It causes the incubation temperature to drop
    2. It causes the humidity in the incubator to drop
    3. It can decrease hatchability
    4. All of the above
16. What types off eggs might explode while being incubated?
    1. Dirty eggs
    2. Infertile eggs
    3. Both A and B
    4. None of the above
17. What is the purpose of the yolk?
    1. It becomes the chick
    2. It helps protect the flock
    3. It provides food to the embryo
    4. It doesn’t have one
18. Do eggs from different species of birds need to be incubated for different numbers of days to hatch?
    1. Yes
    2. No
19. If you incubate an egg from the grocery store, will a chick hatch?
    1. Yes
    2. No
20. As the embryo grows, does the egg gain or lose weight?
    1. The egg will gain weight
    2. The egg will lose weight
    3. The egg will maintain the same weight
21. How does a chick get out of an egg?
    1. It uses an egg tooth to peck its way out
    2. It’s increase in size causes the egg to crack
    3. It kicks its way out
    4. The mother hen pecks at the egg till it is broken open enough for the chick to get out
22. Why should you NOT incubate a cracked egg?
    1. It will not hatch
    2. Bacteria will grow and egg may explode in the incubator
    3. It will contaminate the incubator, as well as the other eggs in the incubator
    4. All of the above
23. A chick begins to breathe the air from the air cell on day 20 of incubation.
    1. True
    2. False
24. What could be the reason that chicks hatch late?
    1. Eggs are large
    2. Eggs are old
    3. Temperature too low
    4. All of the above
25. Will ALL the eggs set in the incubator always hatch?
    1. Yes, if they are all fertile
    2. Yes, if the temperature is correct
    3. Not necessarily, some fertile eggs just don’t hatch
    4. A and B

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