

Nursery Rhymes and Human Physiology

Nursery Rhymes · Answer Key · 17 Questions

1. In 'Jack and Jill,' the characters 'went up the hill' to fetch water. What is the primary function of the kidneys, which are responsible for filtering waste from the blood and producing urine, analogous to the process of purifying water?

- A) To regulate blood pressure and electrolyte balance.**
- B) To produce hormones that stimulate red blood cell production.
- C) To break down carbohydrates and fats for energy.
- D) To transport oxygen from the lungs to the rest of the body.

2. The rhyme 'Ring Around the Rosie' is often speculated to be linked to the Great Plague. If the rhyme's 'rosie' refers to a rash, what common skin condition is characterized by a raised, often itchy, red rash?

- A) Eczema.**
- B) Acne.
- C) Psoriasis.
- D) Vitiligo.

3. 'Humpty Dumpty sat on a wall, Humpty Dumpty had a great fall.' If Humpty Dumpty represents a fragile bone, what is the primary mineral essential for bone strength and integrity?

- A) Iron.
- B) Calcium.**
- C) Potassium.
- D) Sodium.

4. In 'Twinkle, Twinkle, Little Star,' the 'star' could metaphorically represent a guiding light. In the human body, what organ acts as the central processing unit, receiving sensory information and coordinating responses?

- A) The heart.
- B) The liver.
- C) The brain.**
- D) The lungs.

5. 'Mary Had a Little Lamb' describes a young girl's pet. What is the typical resting heart rate range for an adult human?

- A) 150-200 beats per minute.
- B) 120-140 beats per minute.
- C) 60-100 beats per minute.**
- D) 40-50 beats per minute.

6. The rhyme 'London Bridge is Falling Down' suggests structural failure. In the human body, what are the strong, fibrous tissues that connect bones to bones, providing joint stability?

- A) Tendons.
- B) Ligaments.**
- C) Cartilage.
- D) Muscles.

7. 'Little Miss Muffet sat on a tuffet, eating her curds and whey.' Curds and whey are dairy products. What is the primary function of the digestive system, which processes food like curds and whey?

- A) To transport oxygen and nutrients throughout the body.
- B) To break down food into nutrients the body can absorb.**
- C) To remove waste products from the body.
- D) To regulate body temperature and produce antibodies.

8. In 'The Old Woman Who Lived in a Shoe,' the woman had 'so many children she didn't know what to do.' This could be metaphorically linked to the concept of cell division. What is the process by which a single cell divides into two identical daughter cells?

- A) Meiosis.
- B) Mitosis.**
- C) Apoptosis.
- D) Fertilization.

9. 'Baa, Baa, Black Sheep' asks about wool. In human biology, what is the primary function of skin?

- A) To produce insulin.
- B) To regulate body temperature and protect underlying tissues.**
- C) To filter blood and produce bile.
- D) To break down fats and store energy.

10. 'The Muffin Man' lived 'on Drury Lane.' What is the primary role of the lungs in the human respiratory system?

- A) To pump blood throughout the body.
- B) To exchange carbon dioxide for oxygen.**
- C) To digest food particles.
- D) To store excess glucose.

11. 'Little Bo Peep has lost her sheep.' If the 'sheep' represent healthy immune cells, what is the function of the lymphatic system in relation to immunity?

- A) To transport oxygen to tissues.
- B) To produce digestive enzymes.
- C) To produce and transport white blood cells that fight infection.**
- D) To regulate blood sugar levels.

12. In 'Hey Diddle Diddle,' the 'cow jumped over the moon.' This is fantastical, but cows produce milk, a source of vitamins and minerals. Which vitamin, commonly found in milk products, is crucial for bone health and calcium absorption?

- A) Vitamin C.
- B) Vitamin A.
- C) Vitamin D.**
- D) Vitamin E.

13. 'Hickory Dickory Dock' tells the time. What is the medical term for the body's internal clock that regulates sleep-wake cycles and other physiological processes?

- A) Homeostasis.
- B) Circadian rhythm.**
- C) Metabolism.
- D) Thermoregulation.

14. 'Georgie Porgie, pudding and pie, kissed the girls and made them cry.' If 'kissed' represents a transmission of germs, what is the primary method of preventing the spread of common infectious diseases?

- A) Eating a balanced diet.
- B) Getting adequate sleep.
- C) Practicing good hygiene, such as handwashing.**
- D) Exercising regularly.

15. 'Row, Row, Row Your Boat' implies 'movement and exertion. What is the main function of muscles in the human body?

- A) To transmit nerve signals.
- B) To filter waste products.
- C) To produce movement and maintain posture.**
- D) To produce hormones.

16. In 'Pat-a-Cake,' the baker 'puts it in a pan.' Cooking involves heat. What is the average normal body temperature of a human in degrees Celsius?

A) 35.5°C.

B) 37.0°C.

C) 38.5°C.

D) 39.0°C.

17. 'Sing a Song of Sixpence' mentions 'four and twenty blackbirds baked in a pie.' If these birds represent cells, what is the fundamental structural and functional unit of all known living organisms?

A) An organ.

B) A tissue.

C) A molecule.

D) A cell.