

# Reading for the Real World 3 - Unit 3

Name \_\_\_\_\_

## I. Vocabulary: Choose the best word to fill in the blank.

1. Genetic \_\_\_\_\_ can be caused by chemicals and radiation, even sunlight.
  - a. vaccines
  - b. sprays
  - c. mutations
  - d. prescriptions
2. The deadline for the project is in three days, so we should \_\_\_\_\_ the speed of our research.
  - a. accelerate
  - b. clone
  - c. inflame
  - d. confer
3. Picking up garbage is a(n) \_\_\_\_\_ job, but every city needs these sanitation workers.
  - a. defective
  - b. recipient
  - c. endemic
  - d. nasty
4. If you can \_\_\_\_\_ the quality of writing from the last assignment on all your assignments, you will get an A for this course.
  - a. manipulate
  - b. reproduce
  - c. obsolete
  - d. mutate
5. If \_\_\_\_\_ were possible, would you want to make a copy of yourself?
  - a. cloning
  - b. clinical trials
  - c. symptoms
  - d. antibodies

## II. Cloze Test

### Questions 6 - 10

Gene therapy is \_\_\_\_ (6) \_\_\_\_ as a way of curing or preventing disease by changing the behavior of a person's genes. Currently, gene therapy is still in its early stages, with most of it still \_\_\_\_ (7) \_\_\_\_.

There are actually two types of gene therapy: somatic and germline. Somatic gene therapy targets genes in the soma, or body cells. In this way, the genome of the \_\_\_\_ (8) \_\_\_\_ is changed, but this change is not passed on to the next generation. For example, experimental trials in treating cystic fibrosis treat the genes only in the cells of the lungs, and, consequently, the patient's children would still be at risk of the disease.

In germline gene therapy, \_\_\_\_ (9) \_\_\_\_ changes are made to reproductive cells. The egg or sperm cells of the patient are genetically changed with the goal of passing on these changes to his or her children. In practice, this would mean changing the fertilized egg, the embryo, so that the genetic changes would be \_\_\_\_ (10) \_\_\_\_ in every cell of the future adult, including the reproductive cells. In fact, germline genetic engineering is not being actively investigated in humans or even large animals at this point.

6.     a. progressed  
       b. defined  
       c. changed  
       d. occurred

9.     a. somatic  
       b. fertilized  
       c. altered  
       d. genetic

7.     a. experimental  
       b. successful  
       c. effective  
       d. healthy

10.    a. developed  
       b. prevented  
       c. played  
       d. reproduced

8.     a. engineering  
       b. cell  
       c. recipient  
       d. tool

### III. Reading Comprehension: Based on the reading in section II, fill in the chart of germline and somatic gene therapy.

<del>Targets genes in the soma, or body cells</del> 11. Is not being actively investigated 12. Genetic changes are made to reproductive cells	13. Changes are not passed on to the next generation 14. Changes are passed on to children 15. Used to treat lung cells of cystic fibrosis patients
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Germline Therapy	Somatic Therapy
	- Targets genes in the soma, or body cells

**IV. Word Study: Choose the SYNONYM ( = ) or ANTONYM ( ↔ ) for each word.**

16. Which of the following is a synonym for *defect*?
- a. protein
  - b. flaw
  - c. efficacy
  - d. genome
17. Which of the following is an antonym for *endemic*?
- a. inflammatory
  - b. isolated
  - c. malaria
  - d. recipient
18. Which of the following is a synonym for *symptom*?
- a. therapy
  - b. scientific study
  - c. inconsistency
  - d. sign
19. Which of the following is an antonym for *nasty*?
- a. creative
  - b. pleasant
  - c. clinical
  - d. out of date
20. Which of the following is a synonym for *prevalence*?
- a. widespread
  - b. molecule
  - c. legality
  - d. similarity

**V. Fill in the blank with the correct word.**

genetics    manipulation    spray    antibodies    disparate
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21. This throat medicine can come as a syrup or as a \_\_\_\_\_.
22. The scientist dishonesty was revealed by the \_\_\_\_\_ of her data.
23. Advancements in the study of \_\_\_\_\_ has allowed science to use ancient DNA to understand the links between species.
24. Even though they are twins, their personalities are quite \_\_\_\_\_.
25. When a virus enters, the body produces \_\_\_\_\_ to fight the virus.

1	2	3	4	5
c	a	d	b	a
6	7	8	9	10
b	a	c	d	d
11	12	13	14	15
germline	germline	somatic	germline	somatic
16	17	18	19	20
b	b	d	b	a
21	22	23	24	25
spray	manipulation	genetics	disparate	antibodies