



**UNIVERSIDAD AUTÓNOMA DE  
SINALOA**  
**CENTRO DE INVESTIGACIÓN Y DOCENCIA EN  
CIENCIAS DE LA SALUD**  
**PROGRAMA: MAESTRÍA EN CIENCIAS CLÍNICAS**



**EXAMEN DE COMPRENSIÓN DEL IDIOMA INGLÉS**

**Human Genome Project Update**

Researchers say a project begun nearly ten years ago to map the human genome in an effort to decipher the genetic code contained in our DNA will be ninety percent complete by next year. That's about five years ahead of schedule and promises to accelerate new treatments for major diseases.

The genetic blueprint of human beings (and) deciphering the genetic code is the lifeblood of top researcher Ira Herskowitz. To help ordinary folks understand what's going on, Herskowitz turns to music. He sings a song about genes, "Well, it just so happens that inside of everyone, there's tiny plans to tell how the job's to be done. They're worth more to you than the family jewels, they're stored in the form of molecules."

Herskowitz says people should welcome, not fear, genetic research. "When they hear about DNA they may think of some monster movie they saw, but they should think that knowing about DNA is going to enrich their life and improve their health."

DNA molecules contain about three billion pieces to a puzzle, pieced together, they form genes that provide instructions on how to build all the unique cells that make up a human being.

Dr. Francis Collins, "It is a series of letters a, c, g and t and 3 billion of them in the proper order is what we use, ever since we were a one celled embryo until now to carry out the biological functions we humans have to do."

Like some four letter coded alien script, newly sequenced DNA scrolls over the Internet.

Ira Herskowitz sings another line from his genetics song; "I wouldn't want to write a novel with four letters, so I think I'll write a human being instead..."

"And the challenge then will be to understand how the roughly eighty thousand genes that reside in the script do what they do, and how they are involved in health and disease...."  
Dr. Francis Collins....

Thanks mostly to new technology, twenty percent of the three billion letter human genome has already been sorted out. The national institutes of health says ninety percent will be completed within a year.

Dr. Francis Collins says, "And the challenge then will be to understand how the roughly eighty thousand genes that reside in the script do what they do, and how they are involved in health and disease."

Researchers are finding genes faster than they can figure out how they function, genes for breast cancer, cystic fibrosis, and Parkinson's disease are already under intense study. But just mapping the human genome doesn't end the journey. Figuring out how to use the map to deliver the cure is the next big job.

Ira Herskowitz adds another line from his genetics song, "If you've got any questions about something you missed, just check out CNN, all class dismissed. Twannnnnng."

## Vocabulary

Select the letter of the definition that matches the word.

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1 genome

- a magic person that can make wishes come true
- a small person found in fairy tales.
- all the genetic material of a person
- a clone

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2 genetic

- a force that makes iron attract other metals
- having to do with fairy tales
- in a hurry
- having to do with genes and heredity

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3 decipher

- to translate from secret writing or code to an understandable form

- to pour the liquid from
  - an operation to remove cells from the body
  - to decide on a course of action
- 

4 DNA

- the science of heredity
  - the molecules that form genes
  - a code formed from four chemicals
  - B and C
- 

5 accelerate

- drive quickly
  - speed up
  - to be the best
  - to translate from secret writing or code to an understandable form
- 

6 blueprint

- material used to make clothes
  - a dye used to mark genes
  - a detailed plan or outline
  - a process used to find DNA in genes
- 

7 molecules

- the smallest part of a substance that still has the characteristics of the substance
  - a special microscope
  - a chemical found in DNA
  - a serious disease
- 

8 genes

- a code
- popular pants worn by men and women
- valuable jewels
- the unit of hereditary traits

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9 biological function

- hereditary traits
  - the natural processes of animals and plants
  - process used to find DNA in cells
  - the work of biologists
- 

10 sequenced

- a detailed plan or outline
  - the special shape of DNA molecules
  - in the correct order
  - occurring over and over
-

## Word Selection

### Instructions

For each item: - click on one of the boxes

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1 Genes are made up of molecules called \_\_\_\_\_.

genomes

DNA

disease

research

---

2 Genetic research may tell us how to cure \_\_\_\_\_.

molecules

embryos

diseases

puzzles

---

3 DNA is made up of 4 letters (chemicals) which form a \_\_\_\_\_.

code

puzzle

cell

disease

---

4 Ira Herskowitz uses a \_\_\_\_\_ to help people understand DNA.

computer

game

song

drawing

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5 \_\_\_\_\_ and \_\_\_\_\_ have helped researchers sort out the puzzle of DNA.

technology

computers

molecules

A & B above

## Multiple Choice

For each item: - click on one of the boxes

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1 A DNA molecule contains \_\_\_\_\_ pieces of information?

- 300,000
- 3,000,000,000
- 300,000,000
- 3,000,000

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2 Which of the following are examples of a code?

- Morse code
- colored flags used to give a signal from one ship to another
- the signals a catcher makes to a pitcher in a baseball game
- all of the above

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3 The challenge for researchers will be to\_\_\_\_\_.

- finish their job in the next year
- discover how genes can prevent or cure disease
- try to make a human with the DNA information
- take over the job of making babies

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4 Biological functions include which of the following?

- Breathing
- Walking
- Writing
- all of the above

---

5 DNA molecules piece together to form \_\_\_\_\_.

- Genes
- Cells
- Embryos
- none of the above

