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## CLE CT INGLÉS – Ejemplos de ítems y tareas

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### TEXT 1

# The Lightning Rod

**P1** Lightning, a meteorological phenomenon present in electrical storms, was a supernatural punishment to the wooden cities of the 18th century. Churches were particularly in danger since they were often the tallest structures around, and a single electrical storm could easily destroy buildings across entire regions. In Benjamin Franklin's<sup>1</sup> lifetime, a bolt of lightning killed 3,000 people in Italy after it hit a church basement packed with explosives. Apart from praying for God's protection, no one knew how to protect buildings from this "electrical fire."



**P2** After countless hours spent experimenting with static electricity, Franklin figured that if a metal rod could be fixed to the top of a building and connected to the ground with a cable, it could gently extract the "fire" from a cloud before it had a chance to destroy the building. Franklin sent news of his protective rod across the Atlantic, where it was first adopted in the churches and cathedrals of the French countryside.

**P3** A lightning rod is a very simple device -- it's a pointed metal rod attached to the roof of a building. The rod may be 2 cm in diameter. It connects to a huge piece of copper or aluminum wire that's also 2 cm or so in diameter. The wire is connected to a conductive metallic web buried in the ground nearby.

**P4** Lightning rods provide a low-resistance path to ground that can be used to conduct the enormous electrical currents when lightning strikes occur. If lightning strikes, the system attempts to carry the harmful electrical current away from the structure and safely to ground. If the strike contacts a



material that is not a good conductor, the material will suffer massive heat damage. The lightning-rod system is an excellent conductor and so allows the current to flow to ground without causing any heat damage. Lightning can "jump around" when it strikes and will strike where it finds little resistance. If the strike occurs near the lightning-rod system, the system will offer a very low-resistance path and can then receive a "jump," conducting the strike current to ground before it can do any more damage. Therefore, contrary to popular belief, the purpose of the lightning rod is not to attract lightning -- it only provides a safe option for the lightning strike to choose.

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<sup>1</sup> a famous American inventor of the 18<sup>th</sup> century



**TASK: Which is the best option: A, B or C? Write a ✓ next to it.**

1) People in the 18<sup>th</sup> century disliked lightning because ...

- |                          |                                         |
|--------------------------|-----------------------------------------|
| <input type="checkbox"/> | A. they were afraid of electricity.     |
| <input type="checkbox"/> | B. it was present in electrical storms. |
| <input type="checkbox"/> | C. it caused damage to their property.  |

2) Churches got struck by lightning because ...

- |                          |                                         |
|--------------------------|-----------------------------------------|
| <input type="checkbox"/> | A. they were the most common buildings. |
| <input type="checkbox"/> | B. lightning reached them very easily.  |
| <input type="checkbox"/> | C. they were as tall as the houses.     |

3) Before Franklin's time, people defended themselves from lightning by...

- |                          |                                       |
|--------------------------|---------------------------------------|
| <input type="checkbox"/> | A. resorting to religious traditions. |
| <input type="checkbox"/> | B. protecting the tallest buildings.  |
| <input type="checkbox"/> | C. hiding in building basements.      |

4) The lightning rod is useful because it ...

- |                          |                                 |
|--------------------------|---------------------------------|
| <input type="checkbox"/> | A. repels electric currents.    |
| <input type="checkbox"/> | B. redirects electric currents. |
| <input type="checkbox"/> | C. attracts electric currents.  |

5) The writer of the text wants ...

- |                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> | A. to persuade people to install lightning rods on buildings. |
| <input type="checkbox"/> | B. to provide information about Franklin's inventions.        |
| <input type="checkbox"/> | C. to explain how a lightning rod works.                      |

**TASK: Answer the following questions. You can answer the questions IN SPANISH.**

6) What is the main characteristic that makes a lightning rod effective?

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Why was Franklin's invention first adopted by churches and cathedrals?

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## TEXT 2

# Food Safety News

PRESENTED BY **MARLER CLARK**

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## OPINION & CONTRIBUTED ARTICLES

BY [JOHN N. SHAW](#) | FEB 01, 2010

### Should We Care About Genetically Modified Foods?

Genetically modified foods (also, GM foods or GMOs) have recently received more attention as the topic becomes a more controversial and popular subject. Several environmental organizations, for example *Greenpeace* and *Friends of the Earth*, have actively protested against GMOs for various reasons. The main question that ordinary citizens ask is, "should we support or oppose GMOs?"

GMO expert Deborah Whitman supports genetically modified foods in her article "Genetically Modified Foods: Harmful or Helpful?" Whitman presents what she believes are numerous advantages of GMOs and some popular criticisms of GMOs. A number of people do not understand exactly what GMOs are and why their use is debated. GMOs are foods made from genetically modified organisms. The term GMO is used to refer to plants created for human or animal consumption using the latest biology techniques. These plants are modified in the laboratory to intensify desired characteristics such as resistance to pesticides or nutritional content. These characteristics are normally made more intense by breeding, in other words natural reproduction, but conventional plant breeding methods can sometimes take very long and are often not very precise. Genetic engineering, however, can create plants with the exact desired characteristic very rapidly and with great precision.

What are some other advantages? Most appear to be unimportant; however, they have an enormous impact on our society and food supply. Some of the advantages include pest resistance, herbicide tolerance, disease resistance, cold tolerance, drought tolerance (resistance through periods with no rain), and nutrition. These advantages are listed below in more detail:

- Pest resistance can be extremely expensive, requiring farmers to spend a lot of time and money on pesticides. Additionally, these pesticides bring about numerous dangers and can harm consumers' health. GMOs can help eliminate pesticides and reduce costs.



- Biologists are working to create plants with resistance to viruses, fungi and bacteria. This may also help farmers be more efficient and save money.
- An anti-freeze gene has to be introduced into several plants, giving them the ability to tolerate colder temperatures that normally kill young plants.
- Researchers are working to create a variety of "golden" rice that contains several vitamins and nutrients. This is significant because it could improve the diet of populations dependent on rice, and at the same time, reduce malnutrition in countries that don't have access to other agricultural products.

Although the advantages of GMOs appear evident at this point, there are several criticisms and concerns. Many people believe that private corporations want to obtain economic benefit without considering potential dangers and that the government is not exercising enough control. In her article "Genetically Modified Foods: Harmful or Helpful?", Deborah Whitman states that GM food criticisms generally fall into three categories: 1) environmental dangers, 2) human health risks, and 3) economic concerns.

- The environmental dangers consist of accidental negative effects on other organisms. For example, a study showed that pollen from a type of corn bioengineered for pest resistance caused high mortality in a butterfly species, an innocent species that came into contact with this pollen.
- Human health risks are an enormous concern. Introducing foreign genes into food plants could introduce new allergens into the human body; or eating these foods could cause problems with consumers' intestines. However, this has not been proved yet.
- The economic concern, and probably the most justified, is the claim that the process of bringing a GMO to the market is long and expensive; companies expect economic benefits too soon and raise the price of seeds<sup>2</sup> as a consequence.

In conclusion, GM foods have enormous potential to save money, eliminate poverty, reduce hunger and malnutrition, and promote innovative practices. On the other hand, some individuals believe GM foods can work against the environment and human health. However, I believe that the benefits far outweigh the concerns. Although we must proceed with caution and continue doing research, technology is constantly advancing. Consumers should consider the positives and the negatives, and accept this innovative process which can solve numerous problems in the world.

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<sup>2</sup> seeds: semillas



**TASK: Choose the best option: A, B or C. Write a ✓ in the box next to it.**

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7) The writer of this article is ...

- |                          |                     |
|--------------------------|---------------------|
| <input type="checkbox"/> | A. Marler Clark.    |
| <input type="checkbox"/> | B. John N. Shaw.    |
| <input type="checkbox"/> | C. Deborah Whitman. |

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8) The writer of the article is ...

- |                          |                                                        |
|--------------------------|--------------------------------------------------------|
| <input type="checkbox"/> | A. in favour of genetically modified foods.            |
| <input type="checkbox"/> | B. against genetically modified foods.                 |
| <input type="checkbox"/> | C. neutral with respect to genetically modified foods. |

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9) Considering only the title in Deborah Whitman's article,

- |                          |                                               |
|--------------------------|-----------------------------------------------|
| <input type="checkbox"/> | A. you can tell she is against GM foods.      |
| <input type="checkbox"/> | B. you can tell she is in favour of GM foods. |
| <input type="checkbox"/> | C. you can't tell her position.               |

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10) Breeding is ...

- |                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| <input type="checkbox"/> | A. a form of traditional reproduction of plants.              |
| <input type="checkbox"/> | B. a bioengineered process to reproduce plants.               |
| <input type="checkbox"/> | C. a way to reduce a plant's characteristics in a laboratory. |

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11) The writer uses the phrase "*such as resistance to pesticides or nutritional content.*" (line 13).

- |                          |                              |
|--------------------------|------------------------------|
| <input type="checkbox"/> | A. to make a comparison.     |
| <input type="checkbox"/> | B. to give an example.       |
| <input type="checkbox"/> | C. to express a consequence. |

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12) Farmers who use bioengineered seeds can save money because these plants...

- |                          |                                          |
|--------------------------|------------------------------------------|
| <input type="checkbox"/> | A. don't require so much care.           |
| <input type="checkbox"/> | B. grow faster.                          |
| <input type="checkbox"/> | C. follow conventional breeding methods. |

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13) The writer exposes some criticisms against the health concern. According to the writer, these arguments ...

- |                          |                          |
|--------------------------|--------------------------|
| <input type="checkbox"/> | A. must be considered.   |
| <input type="checkbox"/> | B. cannot be considered. |
| <input type="checkbox"/> | C. could be considered.  |
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14) Pesticides are expensive products for farmers and using them involves risks, too. What are some of the risks involved?

- |                          |                                            |
|--------------------------|--------------------------------------------|
| <input type="checkbox"/> | A. Risks related to their effect on seeds. |
| <input type="checkbox"/> | B. Risks related to human health.          |
| <input type="checkbox"/> | C. Risks related to low temperatures.      |

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15) After reading the article the answer to the question in the title "Should we care about genetically modified foods?" is ...

- |                          |                                               |
|--------------------------|-----------------------------------------------|
| <input type="checkbox"/> | A. "Yes, because the risks are considerable." |
| <input type="checkbox"/> | B. "No, there are no risks involved."         |
| <input type="checkbox"/> | C. "Yes, although risks are of low impact."   |

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16) The advantage of genetic engineering processes is that they are...

- |                          |             |
|--------------------------|-------------|
| <input type="checkbox"/> | A. cheap.   |
| <input type="checkbox"/> | B. fast.    |
| <input type="checkbox"/> | C. popular. |
- 

**TASK: Answer the following questions. You can answer the questions IN SPANISH.**

17) According to the writer, what is the definition of "genetically modified foods"?

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18) The writer admits that one of the criticisms against GM foods may be accepted. Which issue is it?

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19) Why are butterflies considered an "innocent species" (line 44) in this context?

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### Clave de Corrección

| Item | Respuesta                                                                                                                                                                                           |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1)   | C                                                                                                                                                                                                   |
| 2)   | B                                                                                                                                                                                                   |
| 3)   | A                                                                                                                                                                                                   |
| 4)   | B                                                                                                                                                                                                   |
| 5)   | C                                                                                                                                                                                                   |
| 6)   | Its conductive capacity. // That it offers the strike current a low resistance path and conducts it to ground.                                                                                      |
| 7)   | Because they were probably suffering the same problems as in America, since they are tall buildings.                                                                                                |
| 8)   | B                                                                                                                                                                                                   |
| 9)   | A                                                                                                                                                                                                   |
| 10)  | C                                                                                                                                                                                                   |
| 11)  | A                                                                                                                                                                                                   |
| 12)  | B                                                                                                                                                                                                   |
| 13)  | A                                                                                                                                                                                                   |
| 14)  | C                                                                                                                                                                                                   |
| 15)  | B                                                                                                                                                                                                   |
| 16)  | A                                                                                                                                                                                                   |
| 17)  | B                                                                                                                                                                                                   |
| 18)  | "GMOs are foods made from genetically modified organisms. The term GMO is used to refer to plants created for human or animal consumption using the latest biology techniques." (lines 12-13)       |
| 19)  | La cuestión económica.                                                                                                                                                                              |
| 20)  | Respuestas con el mismo sentido que:<br>Porque no son una amenaza para las plantas modificadas.<br>No son una amenaza pero mueren igual –<br>Son víctimas no relacionadas con el objetivo original- |