

First Term English Exam

Correction

Text: The gene gun

A gene gun is a tool which inserts genetic information such as DNA into a cell. It is hand held and roughly the size of a hairdryer. The standard gene gun was originally developed to insert material into plants. It is powered by a pulse of helium gas, which pushes its genetic bullet easily through the cell membrane and into the cell.

Scientists needed a gene gun for research into animal and human brain cells. But the standard gene gun used for plants had one major problem: it was too inaccurate for brain cells. It would hit the target, but it also hit everything around it at the same time.

In the standard gene gun, the barrel is wide, and conical in shape. This spreads the gas and 'bullets' over a wide area, which causes tissue damage around the target cell. The high-pressure gas causes recoil, which creates more inaccuracy.

Activity One (5 pts):

1. Answer the following questions according to the text.

- What is the original use of a gene gun?
- To insert material into plants. (1)
- What is the role of Helium gas?
- It pushes the genetic bullet easily through the cell membrane and into the cell. (1)
- What made the standard gene gun inaccurate?
- It hits everything around the target at the same time and causes tissue damage around the target cell. (2)

2. Find in the text the synonyms and opposites of the following words.

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|----------------------------|--|
| - Extract ≠ insert (0,5) | - Approximately = roughly (0,5) |
| - Exact ≠ inaccurate (0,5) | - Powerful backwards movement = recoil (0,5) |

Activity two (2 pts):

- Complete the following definition.

A computer is an **electronic** machine that can store, **organize**, and processes **data**. It can be programmed. It exists in different **sizes**. It is composed of hardware and software.

Activity three (4 pts):

1. Rewrite the following sentences in the **active OR passive** voice as necessary.

- Hydraulic cylinder pushes the cutter.
- The cutter is **pushed** by Hydraulic cylinder.
- The rocks are collected by large scoops.
- Large scoops **collect** the rocks

2 - A. Rewrite the following sentence using the **first conditional**.

- The aircraft fails / the pilot activates the ejection system.
- If the aircraft fails, the pilot **will activate** the ejection system.

2 - B. Rewrite the following sentence using the **second conditional**.

- A spacecraft fails / the computer activates the LAS system.
- If a spacecraft failed, the computer **would activate** the LAS system.

Activity four (4 pts):

- Write the adjectives in brackets using **comparative OR superlative** as necessary.
- A jet flies **faster than** (fast) a propeller plane, and the supersonic Concorde flies **the fastest** (fast) of all.
- LPG engines are about the same weight as petrol ones, but they're **much more durable**.
- There are two more strengths of LPG: it's the **quietest** (quiet) fuel, and the **least expensive** (expensive) of the three.

Activity Five (5 pts):

- Translate the following paragraph to Arabic.

You may wish to change the desktop background to a picture, for example a personal photo taken on a digital camera, the computer screen may show the same image for a very long time. To avoid this, you can choose a screen saver. This is usually a simple moving pattern which activates if the computer is not used for a set amount of time (for example, five minutes)

قد ترغب في تغيير خلفية سطح المكتب إلى صورة ، على سبيل المثال صورة شخصية لمنطقة بكاميرا رقمية، قد تعرض شاشة الكمبيوتر نفس الصورة لمدة طويلة جداً، لتجنب ذلك يمكنك اختيار شاشة توقف والتي تكون عادة عبارة عن نمط بسيط متحرك ، يفعل إذا لم يستعمل الكمبيوتر لمدة من الزمن (مثلاً، خمس دقائق).