ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ, ΕΡΕΥΝΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ

Κ Ε Ν Τ Ρ Ι Κ Η Ε Π Ι Τ Ρ Ο Π Η Ε Ι Δ Ι Κ Ω Ν Μ Α Θ Η Μ Α Τ Ω Ν

ΚΟΙΝΗ ΕΞΕΤΑΣΗ ΟΛΩΝ ΤΩΝ ΥΠΟΨΗΦΙΩΝ ΣΤΗΝ ΑΓΓΛΙΚΗ ΓΛΩΣΣΑ

22 Ιουνίου 2018

ΟΔΗΓΙΕΣ ΓΙΑ ΤΟΥΣ ΥΠΟΨΗΦΙΟΥΣ ΚΑΙ ΤΙΣ ΥΠΟΨΗΦΙΕΣ

1. **Να απαντήσετε σε όλα τα ερωτήματα στο τετράδιό σας ακολουθώντας την αρίθμηση των θεμάτων ως εξής:**
   Α1. 1. ...
   2. ...

   Α2. Να γράψετε <u>μόνο</u> τον αριθμό του ερωτήματος και το γράμμα που αντιστοιχεί στη σωστή απάντηση, π.χ.

   4. – Α

   5. ...

   Β1. Να γράψετε <u>μόνο</u> τον αριθμό του ερωτήματος και τη ζητούμενη λέξη.

   10. ...

   11. ...

   Β2. Να γράψετε <u>μόνο</u> τον αριθμό του ερωτήματος και τις ζητούμενες λέξεις.

   15. ...

   16. ...

   Β3. Να αντιστοιχίσετε τον αριθμό με το σωστό γράμμα και να γράψετε <u>μόνο</u> την αντιστοιχία, π.χ.

   20. – Α

   21. ...

   Γ. Να αναπτύξετε το ζητούμενο θέμα στο τετράδιό σας χωρίς να αντιγράψετε την οδηγία-εκφώνηση.

2. **Να χρησιμοποιήσετε μόνο μπλε ή μαύρο στυλό διαρκείας και μόνο ανεξίτηλης μελάνης.**

Καλή Επιτυχία

<u>Διάρκεια εξέτασης</u>: Τρεις (3) ώρες
<u>Έναρξη χρόνου εξέτασης</u>: Αμέσως μετά τη διανομή των θεμάτων
<u>Δυνατότητα αποχώρησης</u>: 11:45

A. Read the text below and respond to tasks A1 and A2.

Scientists have proposed a new way of looking out for marks of aliens in the universe. And it could help us see life forms we'd completely miss otherwise.

Space agencies including Nasa have been active in launching new tools to study the universe, such as the James Webb Telescope. That will provide information on the atmospheric makeup of planets far away – but we might not be sure how to use that information.

Until now, scientists have mostly been looking for oxygen in the atmosphere. If that's found, then it's likely that there's the chance for life on that planet, since we know from life on Earth that oxygen is key.

But we might be missing other important markers (also known as biosignatures) that could indicate such worlds are supporting life. As such, planets might have life on them that we wouldn't spot using just oxygen.

"This idea of looking for atmospheric oxygen as a biosignature has been around for a long time. And it's a good strategy – it's very hard to make much oxygen without life," said Joshua Krissansen-Totton, an author of the paper published in *Science Advances*. "But we don't want to put all our eggs in one basket. Even if life is common in the cosmos, we have no idea if it will be life that makes oxygen. The biochemistry of oxygen production is very complex and could be quite rare."

To do the research, the scientists looked at the history of life on Earth, and the kinds of gases that were around when life first appeared. They found that the planet had a complex mix of different gases, not only oxygen, and that looking for that cocktail could be a far more reliable marker of life on a planet.

"Our study shows that this combination would be a compelling sign of life. What's exciting is that it is also all doable and may lead to the historic discovery of an extraterrestrial biosphere in the not-too-distant future", said co-author David Catling, professor of Earth and Space Sciences.

https://www.independent.co.uk (2018)

Α. ΚΑΤΑΝΟΗΣΗ ΓΡΑΠΤΟΥ ΛΟΓΟΥ (**30 points**)

A1. Answer questions 1-3 based on information from the text (max. 30 words each).

(3 x 4 points = 12 points)

1. What would be a suitable title for this text?
2. What is the purpose of this text?
3. According to the text, what makes it possible to discover extraterrestrial life forms in the future?

A2. Choose the correct answer (A, B or C) for items 4-9, based on information from the text.

(6 x 3 points = 18 points)

4. Information on the atmospheric makeup of distant planets

A. would become known if tools were launched into space.
B. is currently not available to scientists.
C. is now systematically used in scientific studies.

5. Oxygen in a planet's atmosphere

A. indicates that there is life on that planet.
B. definitely proves that there is life on that planet.
C. does not relate to life on that planet.

6. Considering oxygen to be an important marker for life is

A. a fairly recent theory.
B. an unfounded theory.
C. not a new theory.

7. The phrase "But we don't want to put all our eggs in one basket" here means that scientists do not want to

A. limit their study of biosignatures to oxygen.
B. study the atmosphere of all faraway planets.
C. include all gases in their study of biosignatures.

8. According to the study presented in the text, the most reliable life marker on a planet would be the presence of

A. a cocktail of gases, excluding oxygen.
B. a cocktail of gases, including oxygen.
C. oxygen alone.

9. David Catling claims that the study he conducted with his team can

A. result in findings of great importance.
B. have immediate results.
C. contribute to the formation of exciting theories.

Β. ΓΛΩΣΣΙΚΗ ΕΠΙΓΝΩΣΗ **(30 points)**

B1. Use the correct form of the following words (A-H), to complete the gaps (10-14) in the following text, as in the example. There are TWO words you do not need.

(5 x 2 points = 10 points)

A.	retrieve	**B.**	create	**C.**	***~~joy~~* (example)**	**D.**	painless
E.	seem	**F.**	avoid	**G.**	demand	**H.**	hinder

The example is in **bold** and *italics*.

Daydreaming is one of life's great ***(ex.) joys***. You can indulge in it when you're stuck in a boring meeting or a long queue. This **(10)** _____ harmless pastime, however, is a double-edged sword. Some research has found that it boosts **(11)** _____ but other studies suggest that it is bad for your mental health and could lower your intelligence.

On the positive side, in a psychology experiment, students performed better after a break which involved completing simple tasks, known to promote daydreaming, than after a break filled with **(12)** _____ tasks known to reduce daydreaming.

One of the downsides to daydreaming is that it can be a **(13) _____** to learning. If the daydreamer's attention is diverted away from words on the page and directed to the content of the daydream, information **(14) _____** can be seriously affected.

B2. Fill in the gaps with <u>two words</u> in the statements of column B, so that they are similar in meaning to the statements (15-19) of column A, as in the example.

(5 x 2 points = 10 points)

Example: He must take his medicine now.		It <u>is</u> <u>essential</u> that he should take his medicine now.
COLUMN A		**COLUMN B**
15.	It is believed that the latest educational reform has resulted in more creative classes.	The latest educational reform is believed _____ _____ resulted in more creative classes.
16.	The phone rang just as I entered the room.	_____ _____ I entered the room when the phone rang.
17.	They will need two days to fix the car.	It _____ _____ them two days to fix the car.
18.	The accident was caused by drinking-and-driving.	Drinking-and-driving _____ _____ the accident.
19.	The manager should think about experience when hiring new staff.	The manager should take experience _____ _____ when hiring new staff.

B3. Choose the best option A-F (Column B-headings) for items 20-24 (Column A-paragraphs). There is ONE option you do not need.

(5 x 2 points = 10 points)

Climate Change Affects Biodiversity

COLUMN A		**COLUMN B**	
20.	The link between climate change and biodiversity has long been established. Although throughout Earth's history the climate has always changed, with ecosystems and species coming and going, rapid climate change affects the ability of ecosystems and species to adapt and so biodiversity loss increases.	**A.**	Bleak prospects
21.	From a human perspective, the rapid climate change and accelerating biodiversity loss jeopardize human security, as there could be a major change in the food chain upon which we depend, water sources may change, recede or disappear, medicines and other resources we rely on may be harder to obtain, as the plants they are derived from may disappear, and so on.	**B.**	Effects may not be so dramatic, after all

22.	The UN's Global Biodiversity Outlook 3, in May 2010, summarized some concerns over climate change and ecosystems: "The impact of climate change on biodiversity is likely to become a progressively more significant threat in the coming decades. A major issue is the loss of Arctic sea ice while higher concentrations of carbon dioxide in the atmosphere will lead to further ocean acidification".	**C.**	The pace of climate change matters
23.	"Moreover, current levels of climate change are already taking their toll on ecosystems. In addition to rising temperatures, more frequent extreme weather conditions and changing patterns of rainfall and drought also interfere with biodiversity".	**D.**	Effects on the human species
24.	Some species may benefit from climate change (including, from a human perspective, an increase in diseases and pests, which is not a welcome change, of course) but, in any case, the rapid nature of the change suggests that most species will not find it as beneficial, as most will not be able to adapt.	**E.**	Current effects of changing weather patterns
		F.	'Selective' survival

Γ. ΠΑΡΑΓΩΓΗ ΓΡΑΠΤΟΥ ΛΟΓΟΥ

(40 points)

TASK: As far back as 1956, Ray Bradbury´s novel *Fahrenheit 451* presents a future American society where books are outlawed and burnt when found. This makes access to knowledge and information impossible.

As a reader of a student magazine discussing Bradbury´s book, you decide to write an **article** (180-200 words) in which you:

a) express your opinion on people´s right to knowledge and information, providing **two arguments** to justify it

b) describe **two ways** in which your life would be affected if you could no longer access paper books or electronic sources of information.

You do not need to provide a title.

Do not sign the article.

ΤΕΛΟΣ ΜΗΝΥΜΑΤΟΣ