



Roteiro de estudos para recuperação trimestral

Disciplina:	Inglês
Professor (a):	Keila

Conteúdo:	Conteúdos a serem estudados: Unit 2, 3 e 4
Referência para estudo:	Refazer as avaliações feitas durante o trimestre.
Sites recomendados:	Para prática extra ir ao site: www.agendaweb.org
Atividade avaliativa:	

How computers will soon get under our skin

By Steve Connor, Science Editor

12 August 2011

It may soon be possible to wear your computer or mobile phone under your sleeve, with the invention of an ultra-thin and flexible electronic circuit that can be stuck to the skin like a temporary tattoo. The device, which is almost invisible, can perform just as well as more conventional electronic machines but without the need for wires or bulky power supplies, scientists said. The development could mark a new era in consumer electronics. The technology could be used for applications ranging from medical diagnosis to covert military operations.

The "epidermal electronic system" relies on a highly flexible electrical circuit composed of snake-like conducting channels that can bend and stretch without affecting performance. The circuit is about the size of a postage stamp, is thinner than a human hair and sticks to the skin by natural electrostatic forces rather than glue. "We think this could be an important conceptual advance in wearable electronics, to achieve something that is almost unnoticeable to the wearer. The technology can connect you to the physical world and the cyberworld in a very natural way that feels comfortable," said Professor Todd Coleman of the University of Illinois at Urbana-Champaign, who led the research team.

A simple stick-on circuit can monitor a person's heart rate and muscle movements as well as conventional medical monitors, but with the benefit of being weightless and almost completely undetectable. Scientists said it may also be possible to build a circuit for detecting throat movements around the larynx in order to transmit the information wirelessly as a way of recording a person's speech, even if they are not making any discernible sounds.

Tests have already shown that such a system can be used to control a voice-activated computer game, and one suggestion is that a stick-on voicebox circuit could be used in covert police operations where it might be too dangerous to speak into a radio transmitter. "The blurring of electronics and biology is really the key point here," said Yonggang Huang, professor of engineering at Northwestern University in Evanston, Illinois. "All established forms of electronics are hard, rigid. Biology is soft, elastic. It's two different worlds. This is a way to truly integrate them."

Engineers have built test circuits mounted on a thin, rubbery substrate that adheres to the skin. The circuits have included sensors, light-emitting diodes, transistors, radio frequency capacitors, wireless antennas, conductive coils and solar cells. "We threw everything in our bag of tricks on to that platform, and then added a few other new ideas on top of those, to show that we could make it work," said John Rogers, professor of engineering at the University of Illinois at Urbana-Champaign, a lead author of the study, published in the journal Science.

Questão 1 - The “epidermal electronic system”

- a) has already been tested in some hospitals to help medical diagnosis.
- b) is widely used by experts in cybergames.
- c) may be glued to clothes, personal objects and even skin.
- d) can be hardly noticed due to its dimensions and characteristics.
- e) should be connected to external remote devices such as the transistor and solar cells.

Questão 2 - O sistema eletrônico epidérmico

- a) é confortável, devido a sua flexibilidade, entre outros atributos.
- b) necessita de uma cola especial, que simula a textura da pele.
- c) complementa os medidores de batimentos cardíacos convencionais, já que é portátil.
- d) se assemelha a uma serpente, pois pode ser enrolado no corpo todo.
- e) não consegue ser detectado por serviços de espionagem militar e pela polícia.

Questão 3 - In order to create the “epidermal electronic system”,

- a) engineers produced a synthetic skin made of rubber and human cells to print the circuits.
- b) scientists replaced the traditional hard electronic parts for organic ones.
- c) it was necessary to merge the different conceptual frameworks of biology and electronics.
- d) the consumer market in the military and medical fields was researched.
- e) biologists first tested the organic compatibility of the device.

Questão 4 - The sentence based on the second paragraph – The circuit sticks to the skin by natural electrostatic forces rather than glue. – means that

- a) the skin produces natural glue that attracts the circuit like electrostatic forces.
- b) while electrostatic glue may be used, the skin’s natural glue holds the circuit.
- c) electrostatic forces produced by the circuit in contact with the skin create a sticky circuit.
- d) the circuit is glued to the skin through a natural sticky secretion.
- e) natural electrostatic forces, instead of glue, stick the circuit to the skin.

Questão 5 - No trecho do terceiro parágrafo – A simple stick-on circuit can monitor a person’s heart rate and muscle movements as well as conventional medical monitors, but with the benefit of being weightless and almost completely undetectable. – a expressão as well as equivale, em português, a

- a) de modo adequado.
- b) tão bem como.
- c) bem como.
- d) também.
- e) de modo melhor que.

Questão 6 - In the excerpt of the fourth paragraph – where it might be too dangerous to speak into a radio transmitter. – the word might conveys an idea of

- a) possibility.
- b) ability.
- c) request.
- d) certainty.
- e) demand.

Questão 7 - Match the verbs (1–6) with the definitions (a–f).

- 1 melt ___
- 2 pollute ___
- 3 recycle ___
- 4 litter ___
- 5 adapt ___
- 6 evaporate ___

- a to use again
- b to change into steam or gas
- c to change your behavior to work in a new environment
- d to make water or air dirty
- e to make ice turn to water
- f to drop garbage on the ground

Questão 8 - Circle the correct words.

- 1 If we're late, our parents **aren't / won't be** happy.
- 2 If you **ask / 'll ask** politely, she'll help you.
- 3 If the guidebook **will be / is** interesting, I'll buy it.
- 4 If the environment changes, tigers **adapt / will adapt**.
- 5 If we **won't / don't** recycle more bottles, we'll use more fossil fuels.
- 6 If he passes the exam, he **goes / 'll go** to college.

Questão 9 - Put the words in order to make questions.

- 1 buy / would / new chairs / you
_____ ?
- 2 you / would / a new one / build
_____ ?
- 3 anything / change / with your high school / you / would
_____ ?
- 4 the sports facilities / would / change / you
_____ ?
- 5 would / with the pool / you / anything / else / do
_____ ?
- 6 you / do / what / with the classrooms / would
_____ ?

Questão 10 - Complete the dialogue. Use the questions in exercise 3.

- Axel:** (1) _____ ?
- Sasha:** Yes, I would. It isn't perfect.
- Axel:** (2) _____ ?
- Sasha:** I'd have new desks.
- Axel:** (3) _____ ?
- Sasha:** Yes, I'd have comfortable chairs.
- Axel:** (4) _____ ?
- Sasha:** I wouldn't change the gymnasium. That's good, but I'd change the swimming pool.
- Axel:** (5) _____ ?
- Sasha:** Yes, I would. Ours is really old.
- Axel:** (6) _____ ?
- Sasha:** Yes, I'd make the water warmer. It's always really cold!

Questão 11 - Fill in the blanks with the words below.

anything anywhere everyone everything (x3) everywhere (x2) something somewhere

It was Tom's birthday yesterday. I didn't buy him (1) _____, so I invited him out for a meal. We decided to go (2) _____ on 6th Avenue, but (3) _____ went wrong! First, we couldn't find (4) _____ to park the car. Then, when we walked along the street, (5) _____ was closed. So, we went to the grocery store, and I bought (6) _____ to cook. We called our friends and they came round for a meal. Unfortunately, I burned (7) _____, and we had to phone for pizzas! In the end, (8) _____ had a good time, and we ate (9) _____. When our friends went home, there were plates and glasses (10) _____, so Tom and I had to wash the dishes.

Questão 12 - Fill in the blanks with an affirmative or negative question tag with be or do.

- 1 She often sleepwalks, _____?
- 2 It wasn't difficult, _____?
- 3 He's having a nightmare, _____?
- 4 They were dreaming, _____?
- 5 You didn't yawn, _____?
- 6 Mom and Dad wake up at 7 a.m., _____?

VERIFICAR FOLHA DE RESOLUÇÃO EM SEGUIDA



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Aluno (a):	
Turma:	

GABARITO – PROIBIDO RASURAS/ QUESTÕES FECHADAS

Nº 01	Nº 02	Nº 03	Nº 04	Nº 05	Nº 06

QUESTÕES ABERTAS

Nº 07	
Nº 08	
Nº 09	
Nº 10	
Nº 11	
Nº 12	