Spotlight 9

Reading
Task 9815

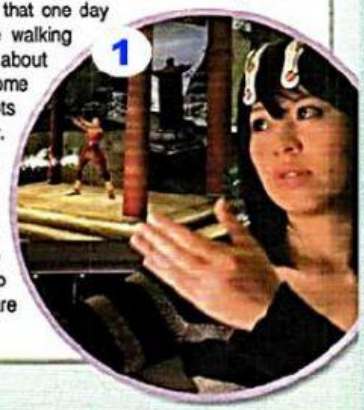
Read the texts. For the given questions 1-15 choose the information from the texts (1-4). The texts may be chosen more than once. The smaller number should come first.

PUSHING the Limits

Science fiction has always shown us the impossible: colonising worlds on the other side of the galaxy, meeting alien species or travelling back to key moments in history. Until now, though, this was all a world of the imagination, but that's changing as new scientific discoveries move ever closer to science fiction!

Jedi mind control device

We probably won't be levitating a spacecraft out of a swamp any time soon, like Yoda, the Jedi Master in the *The Empire Strikes Back*, but it is now possible to control electrical items with just a thought using a new device. At first, the 'Emotiv Headset' used brain signals and facial movements to enable the user to wirelessly control video games. However, its possibilities now go far beyond just the gaming industry. It allows the severely disabled to communicate when it's connected to a computer and scientists are even working on a chip that they will insert directly into the human brain! They hope that one day paralysed people will be walking again simply by thinking about moving their limbs. Some have expressed doubts about all this, however. One scientist asks, "Imagine such a device in your head that you'll be using for mind control – what if people hacked into that, what could they do to you?" The possibilities are mind-boggling!

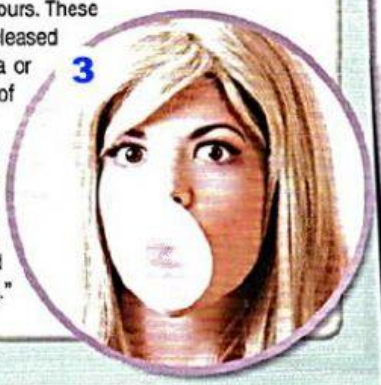


Invisibility cloak

Harry Potter's invisibility cloak proved incredibly useful for all his adventures, but how far are scientists from developing this outrageous idea into a real prototype? Well, quite close, actually! Ali Aliev of the University of Texas demonstrated on YouTube how to make something invisible at the flick of a switch using the same principle as a desert mirage. In a mirage, heat bends light out of shape creating the illusion of water, a trick of the light that has fooled many hot and thirsty travellers. Aliev has done the same, but at much higher temperatures. By heating carbon nanotubes which look like strands of thread, he was able to bend light enough to hide the tubes from view. Does this mean that we'll be buying fully working 'invisibility cloaks' some time in the near future? Well, perhaps, and we won't even have to go to Hogwarts to get it! The only problem is, so far the machine only works underwater.

Three-course chewing gum

Violet Beauregarde paid the price after she ignored warnings not to eat the sweets in *Charlie and the Chocolate Factory*. The stick of gum that tasted of tomato soup, then roast beef and baked potato followed by a mouth-watering dessert of blueberry pie and ice cream turned her into a huge human blueberry as the invention wasn't completely ready. But now, food scientist Dave Hart thinks that soon he will have cracked the secret to turning this weird invention into a reality and creating a similar three-course meal flavour chewing gum. Hart's invention will use nanotechnology to replicate a starter, a main course and a dessert in that order. "Tiny nanostructures within the gum will contain each of the different flavours. These will be broken up and released upon contact with saliva or after a certain amount of chewing," says Hart. Unfortunately it could be some time before the gum is created. "The mechanism exists, but the technique and flavours need perfecting."



Time machine

Travelling back or forward in time in Doctor Who's TARDIS may seem far-fetched, but Einstein stated that time travel was possible in theory. While this hasn't been proven yet, Ronald Mallett, an American professor of physics, believes he can do it with today's technology and for as little as $250,000. Ronald's plan is to use circulating lasers to swirl space and time around like, "a spoon stirring milk into coffee." The time traveller will step into the beam of light and emerge in the past, but not the distant past – he'll only be able to travel back to a point in time from when the machine was switched on. Some physicists are sceptical, saying that the machine would have to be very large or powerful to work, but Mallet still believes that he'll live to see the first time machine. By the time Mallet creates his machine, he'll have worked on it for most of his life. But then he'll be the most famous inventor in history!

Which development(s)

1. 2. make some people concerned about using it? ☐ ☐

3. works like something from the natural world? ☐

4. 5. have not been successfully tested yet?

6. 7. might not be as impossible as many think?

8. appeared in a public experiment?

9. 10. uses body processes to work?

11. will have been the inventor's main focus?

12. was originally intended for another use?

13. can improve life for some groups of people?

14. 15. can presently only work in a certain way?

Click FINISH below