

No geeks allowed

1 QUICK QUIZ

Answer the questions and then compare your answers in class.

- | | | |
|-----------------------|------------------------------|---------------------------|
| 1. Science is for ... | 2. Science is ... | 3. I use science ... |
| a) ... girls. | a) ... interesting. | a) ... all the time. |
| b) ... boys. | b) ... boring. | b) ... quite often. |
| c) ... geeks. | c) ... okay, but not for me. | c) ... very occasionally. |

2 WHAT DOES IT MEAN?

gone off exhibition wireless device work colds invention
infections geeks properties cheering discover existed

1. Match the words from the article with the definitions. The paragraph number will also help you find the correct word.

- a) People that other people think are boring or strange because they are only interested in computers. _____ (paragraph 1)
- b) A public show where interesting things are displayed. _____ (paragraph 1)
- c) A machine, tool or system that someone has made, designed or thought of for the first time. _____ (paragraph 3)
- d) When something has done this, it is no longer good to consume. _____ (paragraph 3)
- e) Giving loud shouts of happiness or approval. _____ (paragraph 5)
- f) Something which was real or appeared in the real world. _____ (paragraph 7)
- g) To find out something that you did not know before. _____ (paragraph 7)
- h) To operate or function. _____ (paragraph 8)
- i) A machine or piece of equipment that communicates using electronic signals. _____ (paragraph 10)
- j) Qualities or features. _____ (paragraph 13)
- k) Minor illnesses that block your nose and make you cough. _____ (paragraph 14)
- l) Diseases or other medical conditions that are caused by bacteria or by a virus. _____ (paragraph 14)

2. Translate these science-related words from the article into your language and look up their meanings.

special words	in my language
acid	
biology	
black hole	
chemist	
gravity	
pH balance	
physicist	
physics	
research	
science	
scientist	
space	

No geeks allowed

NO GEEKS ALLOWED

by Talitha Linehan

1 "When I was younger, I hated science. I thought scientists were geeks," says **Aisling Judge**, now 16, who won 5,000 euros when she was 14 at Ireland's BT Young Scientist & Technology Exhibition (YSTE).

2 But like many kids, Aisling grew up thinking science was boring. Now she knows that science is an important part of everyone's life. Without science, we wouldn't have computers, phones, the Internet or any of the medicine that saves lives every day.

3 Aisling got her invention idea from her family. "I was listening to my mum say that the milk had gone off. I started thinking that we know when milk is off because it smells bad, but it's harder to know when meat is off."

4 In her science lessons, Aisling learned about the pH balance, which measures how much acid is in food. She decided to use this to make something that changes colour to show when food is off.

5 Aisling couldn't believe it when she won first prize at the YSTE. "I didn't hear them calling out my name because I was talking," says Aisling. "Then everyone was looking at me and cheering. It was really cool. I felt like a movie star!"

6 Since then, Aisling has been working with an organization which helps kids to become interested in science. "I try to teach kids that science is about real life in the real world. Every kid with a Nintendo is using science. They just don't know it."

7 The winner of the 2005 BTYSTE was 18-year-old **Patrick Collison**, from south-western Ireland. Patrick's winning invention was a new computer-programming language called Croma. Patrick told us, "Computer projects allow us to make many new things. Physics has existed for thousands of years. The Internet has existed for fewer than 50 years. There's still so much to discover."

8 **Everything is physics**
How does the universe work? What's a black hole? The science that answers these questions is physics. 18-year-old **Lin Fei**, from Canada, won a gold medal at the 2006 International Physics Olympiads (IPhO) in Singapore. Now, Lin studies physics at the Massachusetts Institute of Technology.

9 **Tell us why physics is so fascinating.**
"I couldn't stop thinking about black holes when I was younger. A black hole is a place in time and space where gravity is so strong that nothing gets out – not even light. Physics is the only subject that really helps us understand the universe. Physics is so interesting because *everything* is physics!"

The future is bright

As a kid, 19-year-old **Andrew Nowell** loved building with Lego. Now Andrew, from England, is inventing computer systems that could change the future! In 2006, Andrew won \$18,000 for his project, a handheld wireless device that can control a computer. Andrew's project could help make handheld computers much more powerful and change the way people use them.

Andrew, who's now studying engineering at Cambridge University, tells us how he thinks future inventions will change the world. "In our lifetime, there will be more and better robots. Computers will become a bigger part of our homes and lives. We'll have things like lights that turn on when we walk into a room. And we won't have to do things like cleaning any more. There'll be flying cars, but not many people will use them. The future is small electric cars and better public transport. We'll have more wireless power and Internet everywhere. Instead of mobile phones, we'll have phones that connect to the Internet so people can call each other for free."

Science superstars

Every teen we spoke to said their favourite scientists included **Albert Einstein** (1879–1955) and **Isaac Newton** (1643–1727).

Isaac was a physicist and mathematician who first described gravity. Because of Albert's theory of relativity, he has been called the greatest physicist ever. In 1999, the US magazine Time called him the "Person of the Century".



It's our world too!

Not long ago, most scientists were men. Today, many women and girls work in science. Amanda Kortum, 18, from the US state of Montana, won first prize for her antibacterial-properties project. Now Amanda studies biology at the University of Montana.

"People use the echinacea flower against colds. But nobody had tried to find out if it has antibacterial properties, so I wondered if there's really a good reason to use it. I also looked at eucalyptus. I grew bacteria on special plates and put the echinacea and eucalyptus oils on the plates to see if the oils stopped the bacteria from growing. I found that both oils stop some bacteria – so both can help stop colds and other infections.

When I go to science competitions, I meet many other girls who are working on projects. I think boys and girls think about science differently. I only do an experiment if I'm quite sure it will work. I do more research first. My way of doing things is just different."

© Spot on, November 2007, www.spoton.de

No geeks allowed

3 FIND THE INFORMATION

Are these sentences true (T) or false (F)? Choose the correct answer according to the information in the article. Correct any sentences that are false.

1. Aisling thinks scientists are geeks.
2. Aisling's invention checks whether food is still good to eat.
3. It's easy to know when meat has gone off.
4. It's easy to know when milk has gone off.
5. Patrick's invention allows computers to talk.
6. Lin Fei is interested in black holes.
7. Andrew thinks that in the future we will all drive flying cars.
8. Andrew has invented a robot that does his housework.
9. Amanda's project showed that bacteria can grow on plates.
10. Amanda thinks that girls are better scientists than boys.

4 TEEN TALK

Geek. A *geek* is someone who other people think is boring or strange because they are only interested in computers. *Geeky* can also be used to describe something.

Do you know anyone who is a bit of a *geek*?

What things could you describe as *geeky*? _____

5 DISCUSSION: A NEW INVENTION

Andrew talks about computers and robots in the home (paragraph 11).

If you could invent a robot for your home, what would it do? Write notes and, if possible, draw a diagram. Then present your ideas to the class. Which is the most popular idea?

My robot ...



No geeks allowed

6 WEBQUEST: SCIENCE SUPERSTARS "WALL OF FAME"

Choose one of the scientists from paragraph 12. Find information about your scientist on the Internet. Work with other students who researched the same scientist and make posters or PowerPoint presentations which include pictures and bullet points about the scientist's work and life.

7 DEBATE: OUR FAVOURITE SCIENCE SUPERSTAR

Use the information from your posters or presentations and hold a class debate to decide who your favourite scientist is.

Divide the class into two groups – one science superstar per group. Each group has five minutes to say why their scientist is the best. A Chairperson should make sure each group has had the chance to speak before allowing any questions or further debate.

Use debating sentences such as:

I think ... because ...

I agree / disagree because ... but ...

No geeks allowed

KEY

2

1. a) geeks
b) exhibition
c) invention
d) gone off
e) cheering
f) existed
g) discover
h) work
i) wireless device
j) properties
k) colds
l) infections

3

1. F
2. T
3. F
4. T
5. F
6. T
7. F
8. F
9. F
10. F