

**GENERAL CERTIFICATE OF SECONDARY EDUCATION  
TWENTY FIRST CENTURY SCIENCE**

**BIOLOGY A**

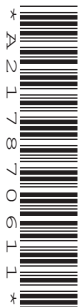
Unit 3: Ideas in Context plus B7 (Foundation Tier)

**A223/01/RB**

**RESOURCE BOOKLET**

**JUNE 2011**

**To be opened on receipt**



**INSTRUCTIONS TO CANDIDATES**

- This booklet contains the article required to answer question 1.
- Take this article away and read it through carefully.
- Spend some time looking up any technical terms or phrases you do not understand.
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- You will **not** be able to take your original copy into the examination with you.

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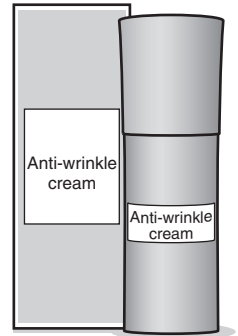
## Anti-wrinkle cream causes stampede at shops

### Part A

A new anti-wrinkle cream has been produced. It claims to be so effective that shops have sold out in a day.

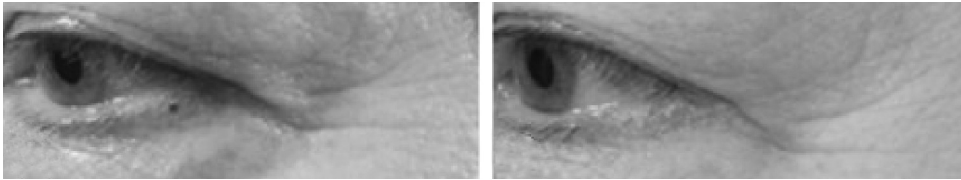
The manufacturer claims that the cream is twice as good as normal anti-wrinkle creams at plumping up the skin and smoothing away wrinkles. The manufacturers say they have scientific proof of just how good this cream is.

A medical journal reported that a scientific study by a university professor showed that people who used the cream for a year had fewer wrinkles. The wrinkles were also smaller.



### Part B

The cream contains vitamin A, proteins and extracts taken from plants such as lupin and alfalfa, which increase the production of fibrillin in the skin. Fibrillin is a protein that can repair ageing and sun-damaged skin by making it more elastic.



A volunteer's face before using the cream.

The same volunteer's face after using the cream.

The professor who carried out the research was funded by the manufacturers, but he designed the experiments independently. The cream was put through the same testing that is normally used on new medicines.

The cream was found to be effective in reducing wrinkles in 70% of the people who tested it. However, trying to reduce wrinkles is expensive. The professor said, "People should realise that it is exposure to the Sun that causes most wrinkles. If they knew this, they might be able to avoid getting so many wrinkles in the first place."

### Part C

Three members of the public were interviewed about the new anti-wrinkle cream.

Peter: "What a load of rubbish. Just some more false claims about a new skin cream. It's just a load of techno-babble."

Wendy: "If it's only 70% successful why should I bother? I want to lose all of my wrinkles."

Sue: "It's working for me. I have bought two bottles. I am going to use twice as much so it will work even better."