



# Cambridge International AS Level

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ENGLISH GENERAL PAPER

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Paper 2 Comprehension

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INSERT

1 hour 45 minutes

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## INFORMATION

- This insert contains all the resources referred to in the questions.
- You may annotate this insert and use the blank spaces for planning. **Do not write your answers** on the insert.

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This document has **8** pages. Any blank pages are indicated.

## Material for Section A

### Background

Oakwood High School, whose students range in age from 11 to 18, is planning an event to raise money to buy a new minibus. The minibus will be used principally to transport sports teams to their matches against local schools, but could also be used for other small-group excursions.

A committee of three teachers is trying to decide on the most suitable event to hold at the school and will then organise it, with the help of some senior students. All participants will be unpaid, in order to minimise the costs involved. The head teacher is keen for the fund-raising event to involve as many of the students as possible. The committee has a shortlist of three events.

### Musical performances

Students would either put on a concert or stage a musical, and sell tickets to an audience made up of the whole-school community and parents. It is envisaged that two performances would be held on a Tuesday and a Wednesday evening in the school hall. There would be the possibility of holding a third evening show, should the event prove successful when tickets come to be sold.

### A sponsored walk

Every student at the school would participate in a walk, making circuits of a pre-planned route over three kilometres. The walk would be held on a school day, with students setting out at intervals and supervised by teachers. Participants would ask friends, relatives and neighbours to donate money in recognition of their efforts, either a sum per kilometre/circuit completed, or a total sum.

### A school fair

To be held on a weekend afternoon, the fair would see students, parents and teachers donate second-hand items for sale, including clothes, books and toys. There would also be stalls set up with face painting for younger children, and attendees would pay to play various fairground-style games, with prizes. One stall, likely to be very popular, would sell home-made cakes, biscuits and sweets.

### Extract from the committee meeting

**Mr James:** For me, it's got to be the sponsored walk. It's by far the easiest and quickest to organise. The music option would take so much commitment to stage to a high standard. We'd have to hold auditions, and have endless rehearsals after school, maybe even at weekends. Count me out...

**Miss Brandon:** Nonsense! I would be more than happy to put the hours in to create an amazing performance. I've done it before, don't forget! Besides, if you think that all sounds like hard work, don't you remember the last time we organised a sponsored event? It took forever to collect in all the money afterwards.

**Mr James:** Oh yes, the endless nagging and reminder letters to parents. Do all that again? No thanks! If we decide on the sponsored walk, let's persuade someone to take charge of collecting in all the money for us!

**Ms Foo:** I quite like the idea of a fair. With a bit of encouragement, we could involve quite a few students, as well as their parents, and we could open it up to local people. We might be able to get some local businesses to donate prizes for the games. If we got one or two quite valuable prizes,

that would create a bit of a buzz, as well as strengthen our links with local business. Could be useful next time we are looking to place students on work experience!

**Mr James:** Great idea. With any luck, we might find a local business willing to *buy* us a minibus – job done! Still, if the minibus will mainly be used by our sports teams, doesn't it make sense to get our students doing something related? And wouldn't the performance only really involve a certain section of our students?

**Miss Brandon:** Not at all! Think bigger, people! There's massive scope for lots of people to be involved, surely, and not just the performers. I'm sure it would make the most money too. Especially if we could find ourselves a guest of honour for one night, a sort of gala performance...

**Ms Foo:** You might be right there. I seem to recall the last time we held a fair, it was a lot of fun but not all that profitable. Still, it's not just about the money, is it? I think we want to make this a really enjoyable event that everyone will remember. So, where does that leave us?

### Additional Information

1. Oakwood High School is situated in a busy urban area.
2. The head teacher regards encouraging healthy lifestyles as an important part of the school's role, with a new healthy eating policy in place in the school canteen.
3. The school orchestra plays to a high standard and recently won a regional competition.
4. Mr James is a good friend of the head teacher.
5. Weekly cooking lessons are compulsory for all students at Oakwood High School.
6. Mr James coaches the cricket team and is very sporty.
7. The school choir has struggled somewhat since several of its most prominent members left the school for university last year.
8. Miss Brandon teaches music and loves to see her students perform.
9. Oakwood High School has just learned that two of its senior chemistry students have won scholarships to prestigious universities.
10. The school hall can comfortably seat 450 people.
11. The father of one of the students is an actor, playing a role in a popular, long-running television drama filmed locally.
12. Miss Brandon is particularly keen on musicals.
13. The school has traditionally staged a major performance in alternate years. The most recent one was last year.
14. Ms Foo likes to get home promptly at the end of the school day to walk her dogs.

## Material for Section B

### **Fraud fighters and bamboo bikes: the African innovators driving change**

The Royal Academy of Engineering's Africa prize, now in its sixth year, is the continent's biggest award for engineering innovation. Sixteen African inventors from six countries have been shortlisted to receive funding, training and mentoring for projects intended to revolutionise sectors ranging from agriculture and banking to women's health.

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Three inventors speak about their innovations and their plans to change Africa for the better.

#### ***Ghana: tackling online fraud***

Identity fraud and cybercrime are big business in Ghana. Ivory Coast tech entrepreneur Charlette N'Guessan, 25, who led research into what technology Ghanaian banks were using to prevent fraud, found the cost far too high.

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'We live in the age of data and fraudsters are getting smarter every day,' says N'Guessan, one of six women shortlisted for the prize. 'Online fraud is very high in Africa, and although financial institutions spend a lot of money trying to fix it, they don't have a real system to prevent it. I thought: "I'm a software engineer, let's talk to banks and see what we can do about this."'

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With two friends she met while studying, N'Guessan developed software that uses facial recognition and artificial intelligence to verify identities remotely. Their invention, Bace API, uses live images or short videos taken on phone cameras to detect whether the image is of a real person, or a photo of an existing image. It then matches the picture or video either to a pre-saved reference photo, or the person's government-issued identity (ID) documents.

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'If it matches, it means the person accessing the services is the same person, not a fake account or a robot,' says N'Guessan.

Bace API is currently being used by two local financial organisations. N'Guessan plans to roll out services to more clients within the next three months. She also aims to partner with universities to create a database of students who don't currently have government-issued ID cards, helping them to gain access to financial services.

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'In Ghana, so many university students can't open bank accounts simply because they don't have passports or driving licences,' she says. 'With our system they could use their university ID cards instead. Students would benefit and businesses would tap into a whole new market.'

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#### ***Kenya: water hyacinth cake***

Jack Oyugi's first job after university was as a dairy farm manager in Mombasa. Huge spending on animal feed made making a profit nearly impossible. Oyugi travelled to neighbouring countries for cheaper protein sources – such as sunflower and soya – to feed his livestock, before realising there was a potential protein for harvest at home instead: water hyacinth.

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The invasive weed reached Africa in the early 1900s, spreading and clogging up major dams and rivers. At Lake Victoria, it has closed off fishing routes and provided a new habitat for disease-carrying mosquitoes. 40

Oyugi remembers watching livestock graze during droughts. ‘They’d just graze on the water hyacinth leaves and then move on. But it made me think maybe there was something in it that the animals didn’t much like, as they didn’t eat the whole plant. That gave me the idea to process it,’ he says. 45

With his new job as a government researcher, Oyugi experimented with the plant. His first hyacinth cake had about 20% protein, equivalent to sunflower cake. He then created a patented\* fermentation process to increase the protein levels to 50%, comparable to soya feed but much cheaper. In a pilot study, Kenyan farmers using Oyugi’s water hyacinth recipe experienced a 20% increase in milk production and a 30% decrease in feed costs. 50

Oyugi has received a grant from the Kenyan government to work on the product and, if he wins the engineering prize, plans on introducing the hyacinth feed to other African countries plagued by the weed.

‘Water hyacinth is so difficult to get rid of that we need to find a way to work with it. The byproducts from making the feed can be sold as fertilisers and we employ the fishermen to harvest hyacinth. They can no longer fish, with hyacinth levels so high.’ 55

### ***Ghana: bamboo bicycles***

Cycling enthusiast Bernice Dapaah grew up using her bike to get to and from school in southern Ghana. After university, she and some engineering friends decided to take on Ghana’s high unemployment rates by creating jobs in the nation’s burgeoning eco sector. 60

Inspired by Dapaah’s childhood, they created a social enterprise making bicycles out of bamboo, which grows fast, produces as much as 35% more oxygen than other trees, and helps to prevent soil erosion, a serious issue for Ghanaian farmers. Bamboo bike production also uses far less energy than making steel bikes. ‘Bamboo is abundant in Ghana, and it takes only one or two bamboo trees to make each bike,’ says Dapaah. 65

‘Employment creation and being green are both very important to us. We recycle and refurbish parts from second-hand steel bikes, and very few components are imported. The bamboo comprises around 75–80% of our bikes. We also plant 10 bamboo trees for every one we harvest.’ 70

Dapaah’s Ghana Bamboo Bikes Initiative now employs 26 full-time staff, 11 of whom are women, and has sold thousands of bikes, as far afield as the US and Europe. Dapaah is now designing a bamboo wheelchair, having won several international awards for her bicycle innovation. Charities have made bulk purchases of EcoRide bicycles for Ghanaian schoolchildren. ‘A lot of the kids using bamboo bikes want to study engineering because they want to know how the design works. We want people to ride these bikes because cycling reduces emissions and bamboo is regenerative.’ 75

\* registered by a government so that the inventor has exclusive rights to sell their product or process 80

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