

### Passage 1: New perspectives on food production

1	Scarcity	(Pa 1) But, he says, 'Most people who are chronically hungry are so not because of the <b>scarcity</b> of food but because they are unable to <b>afford</b> what is available.
2	Afford	
3	Exported	(Pa 1) In addition, the food trade is so globalised that food is often <b>exported</b> from areas where people are hungry and sent to countries where people already have sufficient.'
4	Storing	(pa 2) Millstone believes the problem can only be solved by changing the conditions for poor subsistence farmers and providing the support they need to grow more food. And that is not enough on its own-they also have to have facilities for <b>storing</b> it so that their food can be kept safe and in good condition until it is needed
5	Technology	(Pa 2) But, he adds, increasing productivity through <b>technology</b> is not the answer.
6	Genetically-engineered	(Pa 2) An example is the new <b>genetically-engineered</b> varieties of high-performance maize.
7	Credit	(Pa 2) Giving farmers access to <b>credit</b> also doesn't help; it adds risk. ' Poor farmers should not be thought of as entrepreneurs looking to invest their money. They are looking to diminish their risk.'
8	Tools	(Pa 2) Ultimately, he concludes, 'Instead of devoting resources to research for intensifying commercial farming, we should devote them to enhancing the techniques available to subsistence farmers, and to developing appropriate <b>tools</b> for them to use, because their need is the greatest
9	False	(Pa 4) Which has the lower carbon footprint: sugar made from sugar cane grown in Africa, or from sugar beet flown in from Europe? <b>The answer is sugar from sugar cane in Africa</b>
10	True	(Pa 5) And, he asks, how far down the life cycle should you go? He discovered early in his research that the methods used to <b>prepare foods to be eaten can have a huge impact; boiling potatoes accounts for fully half their carbon footprint.</b>
11	Not given	(Pa 5) You could have a policy where you're going to really pressurise farmers to try to get emissions down, but decarbonising fuel and electricity is a much more effective method of protecting the environment; he says
12	Not given	(Pa 6) 'We found that farm workers in Kenya had better physical and mental health than the average Kenyan, 'he says, attributing the difference to both better income and to the benefits-housing, schools, medical care provided by their large corporate employers.
13	Not given	(Pa 7) The other problem with insisting on locally grown food, he says, is that the UK is not suited to growing most fruits and vegetables-the key elements in a healthy diet. These crops need our best land-which means demoting other crops that do grow well in the UK to lower quality land. 'There's a domino effect so that increasing self sufficiency may, from an environmental perspective, be quite bad, 'he says.

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Passage 2: Egypt's ancient boat-builders

14	F	After that <b>Mersa Gawasis fell out of use</b> , probably <b>because either there was no longer enough water in the lagoon to float ships, or overland links improved, or alternative sites were found.</b>
15	A	<b>Some people have argued that</b> Punt was not on the sea, or a fictitious place altogether, 'says Oxford University Egyptologist John Baines. <b>However</b> , a series of remarkable discoveries on a desolate stretch of Egypt's Red Sea coast has settled the debate. 'These finds remove all doubt that you reach Punt by sea.' Baines says. The Egyptians must have had considerable seagoing experience.'
16	E	Ward has determined that unlike modern vessels, the Egyptian ship was essentially one giant hull. The Egyptian ships were also unique in that they were held together with fittings that needed no metal fasteners, and could be taken apart and put back together again. From the very beginning, <b>the Egyptians were building boats that could be disassembled, and that makes them different from anyone else</b> , 'Ward says.
17	F	For all the skill and craftsmanship evident in the Mersa Gawasis caves, ancient Egypt's ocean voyages were most likely <b>an exception to the usual modes of trade, born out of a necessity to obtain precious materials, such as incense and aromatic resins.</b>
18	Temple	A. The scenes carved into a wall of an Egyptian <b>temple</b> dating from the 15th century BC, tell of a remarkable sea voyage from a mysterious land known as Punt, or 'Land of God'
19	Harbour	B. They were searching for signs of a <b>harbour</b> that might have sheltered merchant ships like those depicted in the wall carvings. Finally, in December 2004, Bard was clearing what she thought
20	Entrance	B. The cave's entrance was carved into an exact rectangle and was clearly not a natural formation. Inside, the archaeologists found shattered storage jars, broken boxes made from cedar planks, and five grinding stones.
21	Holes	C. Many of the artefacts found were full of <b>holes</b> -the work of tiny marine animals known as shipworms. In addition to eight caves, Bard and Fattovich found remains of five mud-brick ramps that might have been used to ease ships into the water.
22	C	F. But geopolitically, they had no other choice'. Fattovich suggests that there were probably <b>only 15 to 20 expeditions over some 400 years</b> , about one every two decades
23	B	B. The archaeologists behind these discoveries are Kathryn Bard of Boston University, USA, and Rodolfo Fattovich of Orientale University, Italy. From 2002 they spent several weeks each year examining a dried-up lagoon known in Egypt as Mersa Gawasis, and

		the coastal cliffs nearby D. Among these are stones carved with inscriptions that specifically mention missions to Punt. As if that weren't enough, among the remnants found outside one cave were two planks marked with directions for assembling a ship
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25	A	A. Some people have argued that Punt <b>was not on the sea, or a fictitious place altogether</b> , 'says Oxford University Egyptologist John Baines.
26	D	D. Ward has determined that unlike modern vessels, the Egyptian ship was essentially one giant hull. The Egyptian ships were also unique in that they were held together with fittings that needed no metal fasteners, and could be taken apart and put back together again. <b>From the very beginning, the Egyptians were building boats that could be disassembled, and that makes them different from anyone else</b> , 'Ward says.



**Passage 3: The communication of science**

27	A	(Pa 1) <b>Science plays an increasingly significant role in peoples lives</b> , making the communication by journalists in the popular media of scientific developments more important than ever.
28	B	(Pa 2) Some problems stem from the esoteric nature of current research and are <b>the associated difficulty of coming up with sufficiently faithful terminology</b> . Abstraction and complexity are not signs that a given scientific direction is wrong, but are instead a tribute to the success of human ingenuity in meeting the challenges that nature presents.
29	C	(Pa 4) Take Einstein's famous theory of relativity. The term 'relativity' here is intrinsically misleading. Many interpret the theory to mean that everything is relative and there are no absolutes. Yet although the measurements any observer makes depend on his coordinates and reference frame, according to Einstein's theory, the physical phenomena he measures, in fact, have an invariant description that transcends that observer's particular coordinates. The physical phenomena are not relative. <b>Even Einstein admitted that the term relativity was probably misleading.</b>
30	D	(Pa 5) Science sometimes transcends this limitation: remarkably, chemists were able to detail the precise chemical processes involved in the destruction of the ozone layer, <b>making the evidence that chlorofluorocarbon gases (Freon, for example) were destroying the ozone layer successfully conveyed to the public.</b>
31	No	(Pa 6) Global warming patterns are a case in point. <b>Even if we understand some effects of carbon dioxide in the atmosphere, it is difficult to predict the precise chain of events that a marked increase in carbon dioxide will cause.</b> The distillation of results presented to the public in such cases should reflect at least some of the subtleties of the most current developments.
32	Yes	(Pa 6) However, a real problem in the global warming debate was that the story was reported in the press in a way that suggested <b>some scientists believed it was a legitimate issue and some didn't, even long after the bulk of the scientific community had recognized the seriousness of the problem.</b>
33	Not given	(Pa 7) A better understanding by the general public of the mathematical significance of results would help to clarify many scientific discussions. Statistical analysis can show whether particular results are significant or could occur simply by chance.
34	Not given	(Pa 7) A few because no one yet knows the big years ago, the Harvard University faculty was tortured by empty debates over the relative intrinsic differences in the scientific abilities of men and women.
35	F	(Pa 8) There are steps we can take to improve public <b>understanding</b> of scientific developments.
36	B	(Pa 8) The first would be to inculcate greater understanding and acceptance of indirect scientific evidence not <b>directly observable by human scientists</b>
37	I	(Pa 8) Second we might need different standards for <b>evaluating science with urgent policy implications as opposed to research with a purely theoretical value.</b>
38	G	(Pa 8) Third, it would be better if scientists were <b>more prepared to discuss</b> the mathematical significance of their results, and if the public didn't treat maths as quite so scary: <b>statistics</b> , which tell us the uncertainty.
39	C	
40	A	(Pa 9) When advances are <b>subtle or complicated</b> , scientists should be willing to go the extra distance to give proper explanations, and the public should be more patient about the truth.



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