TEST 1

SECTION 1

TRAVEL AGENT: ANDREA:	Good morning. World Tours. My name is Jamie. How can I help you? Good morning. I want some information on self-drive tours in the USA. Could you send me a brochure?	
TRAVEL AGENT:	Of course. Could I have your name please?	
ANDREA:	Andrea Brown.	Example
TRAVEL AGENT:	Thank you. And your address? 24, Ardleigh Road.	Q1
ANDREA: TRAVEL AGENT:	Can you spell that?	Q1
ANDREA:	A-R-D-L-E-I-G-H Road.	
TRAVEL AGENT:	Postcode?	
ANDREA:	BH5 2OP	
TRAVEL AGENT:	Thanks. And can I have your phone number?	
ANDREA:	Is a mobile alright?	
TRAVEL AGENT:	Fine.	
ANDREA:	It's 07786643091.	
TRAVEL AGENT:	Thank you. And can I ask you where you heard about World Tours? From	
	a friend? Or did you see an advert somewhere?	
ANDREA:	No, I read about you in the <u>newspaper</u> .	Q2
TRAVEL AGENT:	OK, I'll get the brochures in the post to you but can I give you some	
	information over the phone. What kinds of things do you want to do on	
	your holiday?	
ANDREA:	I'm interested in going to California with my family. I've got two children	
	and we want to hire a car.	
TRAVEL AGENT:	OK. We have a couple of self-drive tours there visiting different places	
	of interest in California. The first one begins in Los Angeles and there's	
	plenty of time to visit some of the theme parks there.	Q3
ANDREA:	That's something on my children's list so I'd want to include that.	
TRAVEL AGENT:	Good. Then you drive to San Francisco. From San Francisco you can	
	drive to Yosemite Park where you spend a couple of nights. You can	
ANDREA:	choose to stay in a lodge or on the campsite. I don't like the idea of staying in a tent. It'd be too hot.	Q4
TRAVEL AGENT:	Right. And the tour ends in Las Vegas.	QŦ
ANDREA:	OK.	
TRAVEL AGENT:	The other trip we can arrange is slightly different. It starts in San	
	Francisco. Then you drive south to Cambria.	
ANDREA:	Someone told me there's a really nice castle near Cambria. Will we go	Q5
	near that?	
TRAVEL AGENT:	Hearst Castle is on that road so you could stop there.	
ANDREA:	Good. I'd like to do that. Does this trip also go into the desert?	
TRAVEL AGENT:	No, it continues to Santa Monica where most people like to stop and do	
	some shopping.	
ANDREA:	We have enough of that at home so that doesn't interest us.	

TRAVEL AGENT: ANDREA: TRAVEL AGENT:	OK. Well you could go straight on to San Diego. That's good for <u>beaches</u> isn't it? That's right, that's a good place to relax and your children might like to visit the zoo before flying home.	Q6
ANDREA:	I don't think so. We want some time for sunbathing and swimming.	
ANDREA:	So how many days are the trips and how much do they cost?	
TRAVEL AGENT:	The first one I told you about is a self-drive tour through California which lasts twelve days and covers <u>2.020</u> kilometres. The shortest journey is 206 km and the longest is 632 kilometres. The cost is £525 per person.	Q7
	That includes accommodation, car rental and a <u>flight</u> but no meals.	Q8
ANDREA:	OK. And the other trip?	
TRAVEL AGENT:	That lasts nine days but you spend only three days on the road. You cover about 980 kilometres altogether.	
ANDREA:	So is that cheaper then?	
TRAVÉL AGENT:	Yes, it's almost a hundred pounds cheaper. It's £429 per person, which is a good deal.	Q9
ANDREA:	So that covers accommodation and car hire. What about flights?	
TRAVEL AGENT:	They aren't included. But these hotels offer dinner in the price.	Q10
ANDREA:	OK. Well, thank you very much. I'll be in touch when I've had a chance to look at the brochure.	
TRAVEL AGENT:	I'm pleased to help. Goodbye.	
ANDREA:	Goodbye.	
SECTION	2	

On behalf of LP Clubs, I'd like to welcome you all here today. My name's Sandy Fisher and I'm one of the fitness managers here. Before we start our tour of the club I'll just run through some basic information about the facilities we have here, including recent improvements, and explain the types of membership available.

Our greatest asset is probably our <u>swimming pool which at 25 metres isn't Olympic-sized.</u>

<u>but now we've expanded it to eight lanes. it's much wider.</u> This means there are rarely more than a couple of people at a time in each lane. Unfortunately, there isn't space for an outdoor pool here but the glass roof on the swimming pool is partly retractable, which means you can enjoy something of the open-air experience on warmer days.

Our <u>recently refurbished fitness suite</u> has all the latest exercise equipment including ten new running machines, and a wide range of weight-training machines. Each member is given full training in how to operate the equipment and there is always a trainer on duty to offer help and advice. Although we do have adult-only times after 6 and at certain times at weekends, children are well catered for. Older children continue to benefit from a wide range of tuition; anything from trampolining to yoga.

One thing all our members appreciate about us is that we take very good care of them. This starts on day one with your personal assessment. You are asked to fill in a questionnaire <u>giving details of any health problems</u>. One of our personal trainers will then go through this with you.

The trainer will then take you through the safety rules for using the equipment in the fitness Q14 suite. During your next exercise session a personal trainer will work with you to make sure you understand these. It's very important to do this because we really do want to avoid

having any sports injuries. There's a lot more to looking after yourself than simply lifting weights!	
At the end of the personal assessment, the trainer will draw up a plan, outlining what you should try to achieve within a six-week period. This will then be reviewed at the end of the six weeks.	Q15
Now, I'll just quickly run through the types of membership we have available. <u>All members</u> must pay a joining fee of £90 in addition to the rates for the monthly membership fees.	Q16
Gold membership entitles you to free entry at all LP Clubs. There are now LP clubs in all major cities and towns so if you travel a lot this will be a great advantage. Individual gold membership costs £50 a month and joint membership for you and your partner will cost £75.	Q17
Premier membership is for professional people whose work commitments make it difficult for them to use the club during the day and so <u>LP gives booking preferences to Premier members at peak times</u> . This means you will find it easier to book the sessions at times that suit you. Reciprocal arrangements with other LP Clubs are available to Premier	Q18
members. Premier membership is for individuals only, but <u>you will be sent passes for quests every month</u> . The monthly fee is £65.	Q19
You don't have to have any special clothes or equipment when you visit the club. We provide robes and hairdryers in the changing rooms, but it's very important to remember your photo card because you won't be able to get in without it.	Q20

For people who aren't working during the day then ...

JOHN:	Erm hello Professor, I'm John Wishart. I'm working on my entry for the Global Design Competition. My tutor said you might be able to help me with it.	
PROFESSOR:	Ah, yes, I got a copy of your drawings. Come in and tell me about it. What sort of competition is it?	
JOHN:	Well, it's an international design competition and <u>we have to come up with a new design for a typical domestic kitchen appliance</u> .	Q21
PROFESSOR:	I see, and are there any special conditions? Does it have to save energy for example?	
JOHN:	Actually that was the focus in last year's competition. This year's different. We have to adopt an innovative approach to existing technology, using it in a way that hasn't been thought of before.	
PROFESSOR:	I see, that sounds tricky. And what kitchen appliance have you chosen?	
JOHN:	Well, I decided to choose the dishwasher.	
PROFESSOR:	Interesting, what made you choose that?	
JOHN:	Well, they're an everyday kitchen appliance in most Australian houses but they're all pretty boring and almost identical to each other. <u>I think</u> some people will be prepared to pay a little extra for something that looks <u>different</u> .	Q22
PROFESSOR:	That's a nice idea. I see you've called your design 'the Rockpool'; why is that?	
JOHN:	Basically because it looks like the rock pools you find on a beach. The top is made of glass so that you can look down into it.	
PROFESSOR:	And there's a stone at the bottom. Is that just for decoration?	

JOHN:	Actually it does have a function. <u>Instead of pushing a button, you turn</u> the stone.	Q23
PROFESSOR: JOHN:	So it's really just a novel way of starting the dishwasher. That's right.	
PROFESSOR:	It's a really nice design, but what makes it innovative?	
JOHN:	Well, I decided to make a dishwasher that uses carbon dioxide.	
PROFESSOR:	In place of water and detergent? How will you manage that?	
JOHN:	The idea is to pressurise the carbon dioxide so that it becomes a liquid. The fluid is then released into the dishwasher where it cleans the dishes all by itself.	
PROFESSOR:	Sounds like a brilliant idea! Your system will totally do away with the need	
	for strong detergents. So what happens once the dishes are clean?	
JOHN:	Well, to allow them to dry, the liquid carbon dioxide and the waste	
	materials all go to an area called the holding chamber. That's where the	Q24
	liquid is depressurised and so it reverts to a gas. Then the oil and grease	
PROFESSOR:	are separated out and sent to the waste system. It sounds like you've thought it all out very thoroughly. So, what happens	
PROFESSOR.	to the carbon dioxide once the process is complete? Not wasted I hope.	
JOHN:	Actually, that's where the real savings are made. The carbon dioxide is	Q25
	sent back to the cylinder and can be used again and again.	
PROFESSOR:	What a terrific idea. Do you think it will ever be built?	
JOHN:	Probably not, but that's OK.	
PROFESSOR:	Well, I'm sure a lot of positive things will come out of your design.	
PROFESSOR:	Now, you seem to have thought about everything so what exactly did you	
PROFESSOR.	need me to help you with?	
JOHN:	Well, my design has made it to the final stage of the competition and, in a	Q26
	few months' time. I have to give a presentation, and that's the part I was	
	hoping you could help me with.	
PROFESSOR:	Right, well that should be easy enough. What have you managed to do so far?	
JOHN:	Well, I've got detailed drawings to show how it will work and I've also	
	written a 500-word paper on it.	
PROFESSOR:	I see. Well, if you want to stand a good chance of winning you really need	Q27
101111	a model of the machine.	
JOHN: PROFESSOR:	Yes, I thought I might but I'm having a few problems. What is the main difficulty so far? Let me guess – is it the materials?	
JOHN:	Yes. I want it to look professional but everything that's top quality is also	Q28
	very expensive.	
PROFESSOR:	Look, projects like this are very important to us. They really help lift our	
	profile. So why don't you talk to the university about a grant? I can help	Q29
	you fill out the application forms if you like.	
JOHN:	That would be great. You'd better show me this paper you've written as well. For a global	Q30
PROFESSOR:		QUU
	competition such as this you need to make sure the technical details	
	competition such as this you need to make sure the technical details you've given are accurate and thorough.	
JOHN:	you've given are accurate and thorough. That would be a great help.	
JOHN: PROFESSOR:	you've given are accurate and thorough.	

SECTION 4	
Today we continue our series on ecology and conservation with a look at a particularly endangered member of the black bear family. One in ten black bears is actually born with a white coat, which is the result of a special gene that surfaces in a few. Local people have named it 'the spirit bear'. And according to the legends of these communities, its snowy fur brings with it a special power. Because of this, it has always been highly regarded by them — so much that they do not speak of seeing it to anyone else. It is their way of protecting it when strangers visit the area.	Q31 Q32 Q33
The white bear's habitat is quite interesting. The bear's strong relationship with the old-	
growth rainforest is a complex one. The white bear relies on the huge centuries-old trees in the forest in many ways. For example, the old-growth trees have extremely long roots that help prevent erosion of the soil along the banks of the many fish streams. Keeping these banks intact is important because these streams are home to salmon, which are the bear's main food source. In return, the bear's feeding habits nurture the forest. As the bears eat the salmon, they discard the skin and bones in great amounts on the forest floor, which provide vital nutrients. These produce lush vegetation that sustains thousands of other types of life forms, from birds to insects and more.	Q34
Today, the spirit bear lives off the coast of the province of British Columbia on a few islands. There is great concern for their survival since it is estimated that less than two hundred of these white bears remain. The best way to protect them is to make every effort to preserve the delicate balance of their forest environment – in other words, their ecosystem.	Q35
The greatest threat to the bear's existence is the loss of its habitat. Over many years, logging companies have stripped the land by cutting down a large number of trees. In	
addition, they have built roads which have fractured the areas where the bear usually feeds, and many hibernation sites have also been lost. The logging of the trees along	Q36
the streams has damaged the places where the bears fish. To make matters worse, the number of salmon in those streams is declining because there is no legal limit on fishing at the moment.	Q37
All these influences have a negative impact on the spirit bear's very existence, which is made all the more fragile by the fact that reproduction among these bears has always been disappointingly low.	Q38
And so, what's the situation going forward? Community organizations, environmental groups and the British Columbia government are now working together on the problem. The government is now requiring logging companies to adopt a better logging method, which is a positive step. However, these measures alone may not be sufficient to ensure a healthy population of the spirit bear in the future.	Q39
Other steps also need to be taken. While it is important to maintain the spirit bear's habitat,	

there also needs to be more emphasis on its expansion. The move is justified as it will also Q40

create space for other bears that are losing their homes ...

134

TEST 2

INTERVIEWER:	Excuse me.	
LUISA:	Yes?	
INTERVIEWER:	I wonder if you could spare a few minutes to do a survey on transport.	
	It won't take long.	
LUISA:	No, that's fine.	
INTERVIEWER:	Lovely. The survey is on behalf of the local council. They'd like to know	
	about what transport you use and any suggestions for improvement.	
	Can I start by asking you how you travelled to town today?	
LUISA:	Sure. I came on the bus.	Example
INTERVIEWER:	Great. Now can I get a few details about yourself?	
LUISA:	OK.	
INTERVIEWER:	What's your name?	
LUISA:	It's Luisa	
INTERVIEWER:	Yes.	
LUISA:	Hardie.	Q1
INTERVIEWER:	Can you spell that, please?	~ /
LUISA:	Yes, it's H-A-R-D-I-E.	
INTERVIEWER:	Great. Thanks. And can I have your address?	
LUISA:	It's 19, White Stone Road.	Q2
INTERVIEWER:	Oh, right. I know that area. It's Bradfield, isn't it?	QZ
LUISA:	That's right.	
INTERVIEWER:	Is the postcode GT7?	
LUISA:	It's actually <u>G-T-8, 2-L-C</u> .	Q3
INTERVIEWER:	Great. And could I ask what your job is? Are you a student?	QU
	I've actually just finished my training. I'm a hairdresser.	Q4
LUISA:	Oh, right. And one more question in this section. What is the reason for	Q4
INTERVIEWER:	you coming into town today?	
LLUCA		
LUISA:	Actually it's not for shopping today, which would be my normal reason, but	OF
NITED: ((E) 4 (E)	to see the dentist.	Q5
INTERVIEWER:	Right. Thanks.	
INTERVIEWER:	Now in this last section I'd like you to give us some ideas about the	
	facilities and arrangements in the city for getting to and from work, er, any	
	suggestions you have for improvements.	
LUISA:	Well, something I've thought about for some time is that when I do walk	
	and I'm doing a later shift, I think the lighting should be better.	Q6
INTERVIEWER:	Yes, good point.	
LUISA:	And of course, I think it's a real shame they've been cutting down on the	
	number of footpaths. They should have more of those. Then people would	
	walk more.	
INTERVIEWER:	Yes, right.	
LUISA:	And, I don't think there are enough trains. That's why I don't use them –	Q7
	you have to wait so long.	
INTERVIEWER:	Thanks. And finally I'd like to ask your opinion on cycling. As you may	
	know, there's a drive in the city to get more people to cycle to work.	
	- ; · · · · · · · · · · · · · ·	

LUISA:

Right.

INTERVIEWER:

But we realise that there are things which the council, but also employers,

might do to help encourage workers to cycle to work.

LUISA:

Yep. Well, I have thought about it and where I work there are no safe

places to leave your bikes.

INTERVIEWER:

LUISA:

And also, I'd have to cycle uphill and on a hot day I'd arrive at work pretty

sweaty so I think I'd need a shower somewhere at work.

Q9

Q10

Q8

INTERVIEWER:

And I suppose the last thing is that I wouldn't be all that confident about

cycling on such busy roads. I think I'd like to see you offering training for that, you know, I'd feel a lot better about starting if that was the case.

INTERVIEWER:

Well, that's very helpful. Thank you very much for your time.

LUISA:

LUISA:

No problem. Bye.

SECTION 2

Good morning. I'm very pleased to have this opportunity to say a little about two exciting new developments in the city: the Brackenside Open-Air Swimming Pool and the children's Adventure Playground in Central Park. As many of you may know, the idea for these 011 initiatives came from you, the public, in the extensive consultation exercise which the City Council conducted last year. And they have been realised using money from the SWRDC the South West Regional Development Commission.

First of all, Brackenside Pool. As many of the older members of the audience will remember, there used to be a wonderful open-air pool on the sea front 30 years ago but it had to close when it was judged to be unsafe. For the design of this new heated pool, we were very happy to secure the talents of internationally renowned architect Ellen Wendon, who has managed to combine a charming 1930s design, which fits in so well with many of the other buildings in the area, with up-to-the-minute features such as a recycling system - Q12 the only one of its kind in the world - which enables seawater to be used in the pool.

Now, there has been quite a bit of discussion in the local press about whether there Q13 would be enough room for the number of visitors we're hoping to attract, but the design is deceptive and there have been rigorous checks about capacity. Also, just in case you were wondering, we're on schedule for a June 15th opening date and well within budget: a testimony to the excellent work of local contractors Hickman's.

We hope that as many people as possible will be there on June 15th. We have engaged award-winning actress Coral White to declare the pool open and there'll be drinks and snacks available at the pool side. There'll also be a competition for the public to decide on the sculpture we plan to have at the entrance; you will decide which famous historical figure from the city we should have.

Q14

And now, moving on to the Central Park Playground, which we're pleased to announce has just won the Douglas Award for safety: the news came through only last week. The unique design is based on the concept of the Global Village, with the playground being divided into six areas showing different parts of the world - each with a representative feature. For example, there is a section on Asia. and this is represented by rides and equipment in the shape of snakes, orang-utans, tigers and so on - fauna native to the forests of the region. Moving south to the Antarctic - we couldn't run to an ice rink I'm afraid but opted instead

for <u>climbing blocks in the shape of mountains</u> – I thought they could have had slides for the glaciers but the designers did want to avoid being too literal! Then on to South America –	Q16
and here the theme is El Dorado – games replicating the search for mines full of precious	Q17
stones. And then moving up to North America, here there was considerable debate - I	
know the contribution of cinema and jazz was considered but the designers finally opted	Q18
for rockets and the International Space Station. Eastwards to Europe then, and perhaps	
the most traditional choice of all the areas: medieval castles and other fortifications. Then	Q19
last, but not least, moving south to Africa and a whole set of wonderful mosaics and trails	Q20
to represent the great rivers of this fascinating and varied continent.	

Now, the opening date for our Global Playground is 10th July. And again we'd love to see you there – so make a date and come and see this magnificent, original new amenity right in the heart of the city.

VICTOR:	Right, well, for our presentation shall I start with the early life of Thor Heyerdahl?	
OLIVIA:	Sure. Why don't you begin with describing the type of boy he was, especially his passion for collecting things.	Q21 & 22
VICTOR:	That's right, he had his own little museum. And I think it's unusual for children to develop their own values and not join in their parents' hobbies; I'm thinking of how Heyerdahl wouldn't go hunting with his dad, for example.	
OLIVIA:	Yeah, he preferred to learn about nature by listening to his mother read to him. And quite early on he knew he wanted to become an explorer when he grew up. That came from his camping trips he went on in Norway I think	
VICTOR: OLIVIA:	No, it was climbing that he spent his time on as a young man. Oh, right After university he married a classmate and together, they decided to experience living on a small island, to find out how harsh weather conditions shaped people's lifestyles.	Q21 & 22 Q23 & 24 Q23 & 24
VICTOR:	As part of their preparation before they left home, they learnt basic survival skills like building a shelter. I guess they needed that knowledge in order to live wild in a remote location with few inhabitants, cut off by the sea, which is what they were aiming to do.	
OLIVIA:	An important part of your talk should be the radical theory Heyerdahl formed from examining mysterious ancient carvings that he happened to find on the island. I think you should finish with that.	
VICTOR:	OK.	
OLIVIA:	All right, Victor, so after your part I'll talk about Thor Heyerdahl's adult life, continuing from the theory he had about Polynesian migration. Up until that time of course, academics had believed that humans first migrated to the islands in Polynesia from Asia, in the west.	
VICTOR:	Yes, they thought that travel from the east was impossible, because of the huge, empty stretch of ocean that lies between the islands and the nearest inhabited land.	Q25
OLIVIA:	Yes, but Heyerdahl spent ages studying the cloud movements, ocean currents and wind patterns to find if it was actually possible. And another	

VICTOR:	argument was that there was no tradition of large ship-building in the communities lying to the east of Polynesia. But Heyerdahl knew they made lots of coastal voyages in locally built canoes. Yes, or sailing on rafts, as was shown by the long voyage that Heyerdahl did next. It was an incredibly risky journey to undertake – sometimes I wonder if he did that trip for private reasons, you know? To show others that he could have spectacular adventures. What do you think, Olivia?	
OLIVIA:	Well, I think it was more a matter of simply trying out his idea, to see if migration from the east was possible.	Q26
VICTOR:	Yes. that's probably it. And the poor guy suffered a bit at that time because the war forced him to stop his work for some years	
OLIVIA:	Yes. When he got started again and planned his epic voyage, do you think it was important to him that he achieve it before anyone else did?	
VICTOR:	Um, I haven't read anywhere that that was his motivation. The most important factor seems to have been that he use only ancient techniques and local materials to build his raft.	Q27
OLIVIA:	Yes. I wonder how fast it went.	
VICTOR:	Well, it took them 97 days from South America to the Pacific Islands.	
OLIVIA:	Mm. And after that, Heyerdahl went to Easter Island, didn't he? We should mention the purpose of that trip. I think he sailed there in a boat made out	
	of reeds.	
VICTOR:	No, that was later on in Egypt, Olivia.	
OLIVIA:	Oh, yes, that's right.	
VICTOR:	But what he wanted to do was talk to the local people about their old stone carvings and then make one himself to learn more about the process.	Q28
OLIVIA:	I see. Well, what a great life. Even though many of his theories have been disproven, he certainly left a lasting impression on many disciplines, didn't he? To my mind, he was the first person to establish what modern academics call practical archaeology. I mean, that they try to recreate something from the past today, like he did with his raft trip. It's unfortunate that his ideas about where Polynesians originated from have been	Q29
VICTOR:	completely discredited. Yes. Right, well, I'll prepare a PowerPoint slide at the end that acknowledges our sources. I mainly used <i>The Life and Work of Thor Heyerdahl</i> by William Oliver. I thought the research methods he used were very sound, although I must say I found the overall tone somewhat old-fashioned. I think they need to do a new, revised edition.	Q30
OLIVIA:	Yeah, I agree. What about the subject matter – I found it really challenging!	
VICTOR:	Well, it's a complex issue	
OLIVIA:	I thought the book had lots of good points. What did you think of	

SECTION 4

Well, I've been talking to managers in a number of businesses, and reading surveys about the future of management. And what I'm going to present in this seminar is a few ideas about how the activity is likely to change in the next ten years. It isn't a scientific, statistical analysis – just some ideas for us to discuss.

One area I want to mention is business markets, and I'm sure a really significant development will be <u>a major increase in competition</u> . with companies from all round the world trying to sell similar products. Consumers will have much more choice – for instance, food products sold in Australia might be manufactured in the USA, China, Finland and dozens of other countries. At the same time, mergers and takeovers mean that	Q31
<u>aovernments are actually losing power to major global corporations</u> . We can probably all think of companies that exert a great deal of influence, which may be good for consumers.	Q32
A third point I want to make about markets is that <u>in the rapidly expanding economies</u> . <u>such as India</u> . China, Brazil and Russia, demand is growing very fast. This is putting pressure on resources all over the world.	Q33
I think businesses are becoming more open to external influences. In particular, <u>companies are consulting customers more and more before making their business decisions</u> . Companies are finding out what they want and providing it, instead of making products and then trying to sell them, which is the model of years ago.	Q34
Another influence is that <u>concerns about the environment will force manufacturers to extend product lifecycles</u> , to reduce the amount of pollution and waste. And in some cases, <u>regulation will need to be strengthened</u> .	Q35
Many societies are much more fluid and democratic, and the structure of companies is changing to reflect that. I think we're going to see a greater emphasis within companies on teams created with a specific project in mind. And when they're completed, the teams will be disbanded and new ones formed.	Q36
More and more people see work as simply one part of their lifestyle, and not the most important one, and as the workforce is shrinking in some countries, businesses are having to compete for staff instead of being able to choose among a lot of applicants. Tvpical examples that will attract and retain staff are traditional ones like flexible hours and — something that has been made possible by advances in technology — remote working, with people based at their home, abroad, or almost anywhere they choose.	Q37
Management styles will almost certainly continue to change. Senior managers will require a lot more than the efficiency that they've always needed. Above all they'll need great skills in leadership, so that their organisation can initiate and respond to change in a fast-moving world, where they face lots of competing requirements and potential conflicts.	Q38
In most of the world, the senior managers of large businesses are mainly men in their fifties and sixties. The predominant style of management will almost certainly become more consultative and collaborative, caused above all, by more women moving into senior management positions.	Q39
Many of the changes are influenced by developments in the wider economy. The traditional emphasis of business was manufacturing, and of course the service sector is very important. But we shouldn't overlook the growing financial contribution of IP, that is, intellectual property. Some books and films generate enormous sums from the sale of related DVDs, music, games, clothes, and so on.	
Another point I'd like to make is that although I've been talking about companies, one trend that they have to face is the move away from people working for the same employer for years. Instead, more and more people are becoming self-employed, to gain the freedom and control over their lives that they're unlikely to get from being employed.	Q40

OK, well that's all I want to say, so let's open it up for discussion.

TEST 3

DIRECTOR:	may I help you?	
CAROL:	Hi. I spoke to you last week about enrolling my daughter for next year.	
DIRECTOR:	Oh, yes. I'll just get some details from you. So, you're her mother?	
CAROL:	That's right.	
DIRECTOR:	And, can I have your name?	
CAROL:	It's Carol, Carol Smith.	Example
DIRECTOR:	And your daughter's name?	Lxample
CAROL:	It's Kate.	
DIRECTOR:	Now, we have several groups at the centre and we cater for children from	
DIRECTOR.	three to five years old. How old is your daughter?	
CAROL:	She's three now but she turns four next month.	
DIRECTOR:	I'll put four down because that's how old she'll be when she starts.	Q1
CAROL:	Fine, she's so excited about her birthday and coming to the centre.	Q1
DIRECTOR:	That's good to hear. And what's your address?	
CAROL:	It's <u>46 Wombat</u> Road, that's W-O-M-B-A-T. Woodside 4032.	Q2
DIRECTOR:	And what's the phone number?	QZ
CAROL:	Oh it's 3345 9865.	
DIRECTOR:	So, have you decided on the days you'd like to bring your daughter here?	
CAROL:	I'd prefer Monday and Wednesday if possible.	
DIRECTOR:	Mmm. I'll check, Monday's fine, but I think the centre is already full for	
5.1.1201011.	Wednesday. Erm. Yes. Sorry. It seems to be a very popular day. We can	
	offer you a Thursday or a Friday as well.	
CAROL:	Oh dear. I suppose Thursday would be all right because she has	Q3
07 II (OL.	swimming on Friday.	QU
DIRECTOR:	OK, got that. Because a lot of parents work, we do offer flexible start and	
	finish times. We are open from 7:30 in the morning until 6 o'clock at night.	
	What time would you like your daughter to start?	
CAROL:	I need to get to work in the city by 9:00 so i'll drop her off at 8:30. You're	Q4
G	pretty close to the city here so that should give me plenty of time to get	٠,
	there.	
DIRECTOR:	That's fine. Now, we also need to decide which group she'll be in. We	
	have two different groups and they're divided up according to age. There's	
	the green group, which is for three- to four-year-olds. And then there's the	
	red group which is for four- to five-year-olds.	
CAROL:	She's quite mature for her age and she can already write her name and	
	read a little.	
DIRECTOR:	Well, I'll out her in the red group and we can always change her to the	Q5
	green one if there are any problems.	
CAROL:	That sounds fine.	
DIRECTOR:	OK. Let's move on to meals. We can provide breakfast, lunch and dinner.	
	As she's finishing pretty early, she won't need dinner, will you give her	
	breakfast before she comes?	
CAROL:	Yes, she'll only need lunch.	Q6

08

DIRECTOR: Now, does she have any medical conditions we need to know about?

Does she have asthma or any hearing problems for example?

CAROL: No. But she does need to wear glasses. Q7

DIRECTOR: Oh, I'll make a note of that.

CAROL: Yes, she's pretty good about wearing them, she can't see much without

them.

DIRECTOR: Right. OK. Now, I also need emergency contact details.

CAROL: So what sort of information do you need?

DIRECTOR: Just the name and number of a friend or family member we can contact in

case we can't get hold of you at any time.

CAROL: OK. That'd better be my sister ... Jenny <u>Ball</u>. That's B-A-double L. Her

phone number is 3346 7523.

DIRECTOR: Great. So she is the child's aunt? Q9

CAROL: Yes, that's right.

DIRECTOR: I'll make a note of that as well. Now, is there anything you'd like to ask?

CAROL: What about payment? How much are the fees each term?

DIRECTOR: Well, for two days and the hours you've chosen, that will be \$450

altogether.

CAROL: OK, and do I have to pay that now?

DIRECTOR: No, we send out invoices once the children start at the centre. You can

choose to pay at the end of each term or we do offer a slightly discounted

rate if you pay every month.

CAROL: Oh. I'll do that then. I find it easier to budget that way and I'm not used to Q10

the term dates just yet.

DIRECTOR: Good, it makes it a lot simpler for us as well. Well, that's everything.

Would you like me to show you around ...?

SECTION 2

INTERVIEWER: Today we're pleased to have on the show Alice Bussell from the Dolphin

Conservation Trust, Tell us about the Trust, Alice.

ALICE: Well, obviously its purpose is to protect dolphins in seas all around the

world. It tries to raise people's awareness of the problems these marine creatures are suffering because of pollution and other threats. It started ten years ago and it's one of the fastest growing animal charities in the country – although it's still fairly small compared with the big players in animal protection. We are particularly proud of the work we do in education – last year we visited a huge number of schools in different parts of the country, going round to talk to children and young people aged from five to eighteen. In fact, about thirty-five per cent of our

members are children. The charity uses its money to support campaigns Q11 & 12

<u>- for example. for changes in fishing policy and so forth</u>. It hopes soon to be able to employ its first full-time biologist – with dolphin expertise – to monitor populations. Of course, many people give their services on a

voluntary basis and we now have volunteers working in observation. office Q11 & 12

work and other things.

I should also tell you about the award we won from the Charity

Commission last year – for our work in education. Although it's not meant an enormous amount of money for us, it has made our activities even more widely publicised and understood. In the long term it may not bring

in extra members but we're hoping it'll have this effect.

INTERVIEWER:

Is it possible to see dolphins in UK waters?

ALICE:

Yes. In several locations. And we have a big project in the east part of Scotland. This has long been a haven for dolphins because it has very little shipping. However, that may be about to change soon because oil companies want to increase exploration there. We're campaigning against this because, although there'll be little pollution from oil, exploration creates a lot of underwater noise. It means the dolphins can't rest and

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socialise.

This is how I became interested in dolphin conservation in the first place. I had never seen one and I hadn't been particularly interested in them at school. Then I came across this story about a family of dolphins who had to leave their home in the Moray Firth because of the oil companies and about a child who campaigned to save them. I couldn't put the book down

- I was hooked.

INTERVIEWER:

ALICE:

mentioned the 'Adopt a Dolphin' scheme. Can you tell us about that? Of course! People can choose one of our dolphins to sponsor. They receive a picture of it and news updates. I'd like to tell you about four which are currently being adopted by our members: Moondancer, Echo, Kiwi and Samson. Unfortunately, Echo is being rather elusive this year

I'm sure our listeners will want to find out what they can do to help. You

Kiwi and Samson. Unfortunately, <u>Echo is being rather elusive this year and hasn't vet been sighted by our observers</u> but we remain optimistic that he'll be out there soon. All the others have been out in force —

Samson and Moondancer are often photographed together but it is <u>Kiwi</u> who's our real 'character' as she seems to love coming up close for the <u>cameras and we've captured her on film hundreds of times</u>. They all have their own personalities – Moondancer is very elegant and curves out and into the water very smoothly, whereas <u>Samson has a lot of energy – he's</u>

always leaping out of the water with great vigour. You'd probably expect him to be the youngest – he's not quite – that's Kiwi – but Samson's the latest of our dolphins to be chosen for the scheme. Kiwi makes a lot of noise so we can often pick her out straightaway. Echo and Moondancer are noisy too, but Moondancer's easy to find because she has a

particularly large fin on her back, which makes her easy to identify. So,

yes, they're all very different...

INTERVIEWER: Well, they sound a fascinating group ...

SECTION 3

MIA: Hi, Rob. How's the course going?

ROB: Oh, hi, Mia. Yeah, great. I can't believe the first term's nearly over.

MIA: I saw your group's performance last night at the student theatre. It was

good.

ROB: Really? Yeah ... but now we have to write a report on the whole thing, an

in-depth analysis. I don't know where to start. Like, I have to write about

the role I played, the doctor, how I developed the character.

MIA: Well, what was your starting point?

ROB: Er ... my grandfather was a doctor before he retired, and I just based it

on him.

OK, but how? Did you talk to him about it? MIA: ROB: He must have all sorts of stories, but he never says much about his work, even now. He has a sort of authority though. So how did you manage to capture that? MIA: I'd ... I'd visualise what he must have been like in the past, when he was ROB: Q21 sitting in his consulting room listening to his patients. OK, so that's what you explain in your report. MIA: Right. ROB: Then there's the issue of atmosphere – so in the first scene we needed to MIA: know how boring life was in the doctor's village in the 1950s, so when the curtain went up on the first scene in the waiting room, there was that long silence before anyone spoke. And then people kept saying the same thing Q22 over and over, like 'Cold, isn't it?' Yes, and everyone wore grey and brown, and just sat in a row. ROB: Yes, all those details of the production. MIA: And I have to analyse how I functioned in the group - what I found out ROR: about myself. I know I was so frustrated at times, when we couldn't agree. Yes. So did one person emerge as the leader? MIA: Sophia did. That was OK – she helped us work out exactly what to do. for Q23 ROB: the production. And that made me feel better, I suppose. MIA: When you understood what needed doing? ROB: Yes. And Sophia did some research, too. That was useful in developing our approach. Like what? MIA: Well, she found these articles from the 1950s about how relationships Q24 ROB between children and their parents, or between the public and people like bank managers or the police were shifting. Interesting. And did you have any practical problems to overcome? MIA: Well, in the final rehearsal everything was going fine until the last scene -ROB: that's where the doctor's first patient appears on stage on his own. The one in the wheelchair? MIA: Yes, and he had this really long speech, with the stage all dark except ROB: for one spotlight – and then that stuck somehow so it was shining on the Q25 wrong side of the stage ... but anyway we got that fixed, thank goodness. Yes, it was fine on the night. MIA: But while you're here, Mia, I wanted to ask you about the year abroad ROB: option. Would you recommend doing that? Yes, definitely. It's a fantastic chance to study in another country for a MIA: vear. I think I'd like to do it, but it looks very competitive – there's only a limited ROB: number of places. Q26 Yes, so next vear when you are in the second vear of the course. you MIA: need to work really hard in all your theatre studies modules. Only students with good marks get places - you have to prove that you know your subject really well. Right. So how did you choose where to go? ROB: Well. I decided I wanted a programme that would fit in with what I wanted Q27 MIA: to do after I graduate, so I looked for a university with emphasis on acting rather than directing for example. It depends on you. Then about six

months before you go, you have to email the scheme coordinator with

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SECTION 4

Today, I want to talk about self-regulatory focus theory and how the actions of leaders can affect the way followers approach different situations. Self-regulatory focus theory is a theory developed by Tori Higgins. He says that a person's focus at any given time is to either approach pleasure or avoid pain. These are two basic motivations that each and every one of us has, and they cause us to have different kinds of goals. Promotion goals in different life situations emphasise achievement. Prevention goals are oriented towards the avoidance of punishment.

In a specific situation, our thoughts might focus more on promotion goals or more on prevention goals. The theory suggests that two factors affect which goals we are focusing on. First, there is a chronic factor. This factor is connected to a person's personality and says that each person has a basic tendency to either focus more on promotion goals or focus more on prevention goals as part of his or her personality. Second. there is a situational factor which means that the context we are in can make us more likely to focus on one set of goals or the other. For example, we are more likely to be thinking about pleasure and to have promotion goals when we are spending time with a friend. In contrast, if we are working on an important project for our boss, we are more likely to try to avoid making mistakes and therefore have more prevention goals in our mind.

Research has shown that the goals we are focusing on at a given time affect the way we think. For example, when focusing on promotion goals, people consider their ideal self, their aspirations and gains. They don't think about what they can lose, so they think in a happier mode. They feel more inspired to change.

When people are focusing on prevention goals, they think about their "ought" self. What are they supposed to be? What are people expecting from them? They consider their obligations to others. As a result, they experience more anxiety and try to avoid situations where they could lose.

Now that I have talked about the two focuses and how they affect people, I want to look at the idea that the way leaders behave, or their style of leading, can affect the focus that followers adopt in a specific situation. In talking about leadership, we often mention transformational leaders and transactional leaders. Transformational leaders, when interacting with their followers, focus on their development. In their words and actions

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transformational leaders highlight change. Their speech is passionate and conveys a definitive vision. All of these things can encourage followers to think about what could be. Q38 In other words, they inspire a promotion focus in their followers.

In contrast, transactional leaders focus on developing clear structures that tell their followers exactly what is expected of them. While they do explain the rewards people will get for following orders, they emphasise more how a follower will be punished or that a follower won't get rewarded if his or her behaviour doesn't change. In short, they emphasise the consequences of making a mistake. This emphasis will clearly lead followers to focus on avoiding punishment and problems. This is clearly a prevention focus.

In conclusion, it is important to understand that one focus is not necessarily better than the other one. For a designer who works in a field where a lot of innovation is needed, a Q40 promotion focus is probably better. In contrast, a prevention focus which causes people to work more cautiously and produce higher quality work might be very appropriate for a job like a surgeon, for example. The main point of the research, though, is that the actions of leaders can greatly influence whether people approach a situation with more of a promotion focus or more of a prevention focus.

TEST 4

SECTION 1

MR T	HORNDYKE:	Thorndy	/ke's.

EDITH: Good morning.	. Is that Mr Thorndyke?
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MR THORNDYKE:	Speaking. How can I neip?
EDITH:	I've got quite a few things which need painting and fixing in the flat and I

wonder whether you'd be able to do the work.

MR THORNDYKE: I'm sure I'd be able to help but let me take down a few details.

Yes, of course. FDITH:

MR THORNDYKE: Well, firstly, how did you hear about us?

It was my friend May Hampton ... you did some excellent work for her a FOITH: Example

couple of years ago. Do you remember?

MR THORNDYKE: Oh, yes, that was in West Park Flats, lovely lady.

EDITH: Yes, she is.

MR THORNDYKE: And what's your name, please?

It's Edith Paraetter. 01 EDITH:

MR THORNDYKE: Edith ... can you spell your surname, please?

It's P-A-R-G-E-double T-E-R. FDITH:

MR THORNDYKE: Double T, right. And do you live in West Park Flats as well?

EDITH: No, actually it's East Park, Flat 4. Q2

MR THORNDYKE: Oh, right, that's over the road, I seem to remember – quite difficult to get

to.

Q3 Yes, it's at the back of the library. FDITH:

Right, I know. And what's your phone number? MR THORNDYKE:

875934 but I'm out a great deal in the afternoons and evenings. EDITH:

MR THORNDYKE: So would the best time to ring you be in the morning? 04

EDITH: Yes.

MR THORNDYKE: Fine. I've made a note of that. Can I just ask, I'll be in a van and I know parking's rather difficult round your flats. Where would you recommend? Well, I always tell people in larger vehicles to park by the postbox on the EDITH: O_5 other side of the road from the entrance. MR THORNDYKE: Good, thanks. And will you be able to give me a full itemised quote? EDITH: MR THORNDYKE: Oh, yes, I'll list all the iobs separately with individual prices. O6That'd be a great help. EDITH: MR THORNDYKE: No problem. MR THORNDYKE: Now, what would you like me to do? EDITH: Firstly and most urgently is in the kitchen. With all the weather damage, the glass in the door has cracked and I'd need that fixing ... MR THORNDYKE: I presume vou mean replacing? Q7 Oh, yes. And as soon as possible ... EDITH: MR THORNDYKE: What I'll do is come round tomorrow morning and do that immediately. EDITH: Thank you so much. The other things aren't so urgent but ... MR THORNDYKE: Now, I'll make a note of everything you want doing. Well, in the kitchen I'd like some painting doing. EDITH: MR THORNDYKE: All the kitchen walls? Just the area over the cooker. It's very greasy ... O8 FDITH: MR THORNDYKE: Right ... it does tend to get that way! MR THORNDYKE: Well, if you want a proper job done what I'd need to do is strip the old **Q9** paint and plaster it about a week before I paint it. Of course. Now, May tells me you also do work in the garden. EDITH: MR THORNDYKE: That's right. Well, I'd like you to replace a fence. FDITH: Q10 MR THORNDYKE: Just one? Yes, at the far end. FDITH: MR THORNDYKE: Fine. Shouldn't be a problem. And that's the lot. FDITH: MR THORNDYKE: Fine. Yeah, as I say I can come round tomorrow morning to look over things with you. That's great, thank you. EDITH: MR THORNDYKE: So, I'll look forward to seeing you tomorrow at ...

SECTION 2

Welcome to Manham Port, where a thousand years of history are brought to life. All the family can enjoy a day out at Manham: visit our copper mine, see models of the machinery it used, have your photo taken in nineteenth-century costume, experience at first hand how people lived at different stages throughout history, and especially how children studied, worked and played.

The port of Manham is located in beautiful and peaceful countryside, on a bend in the great River Avon, and developed here because it's the highest navigable point of the Avon – boats can go no higher up this river – and proved a handy place to load and unload cargo to and from the sea. which is over 23 miles away. A small port was already

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established here when, about 900 years ago, tin was discovered nearby, though it wasn't until the Industrial Revolution, when a tremendous need for metals of all kinds developed. that Manham expanded to become one of the busiest ports in the country. And because it was already so busy, prospectors began to look for other minerals, and by the end of the nineteenth century, lead, copper, manganese and arsenic were added to the cargos leaving Manham.	Q12
In the early days, the ores had been smelted – or processed – in the same area they were mined. But, as demand grew, the smelting process required huge factory furnaces or fires to melt the metal from the rock and there was not enough coal in the local area, so the rocks containing minerals had to be shipped long distances.	Q13
Sadly, in the twentieth century, the great port of Manham declined, and thousands of workers were forced to emigrate out of the area. The building at the port fell into disrepair, and the place became almost forgotten. But then, the Manham Trust was formed to conserve the historical resources of the area. It organised scores of local volunteers to remove undergrowth to find the original outlines of the installations. It then brought in paid professionals to match installations with maps of the original port complex and to set about reconstructing it. Today you can see the results of this ambitious programme of restoration. The intention, and we believe this will be realised before the end of the year, is to return Manham Port to the condition it reached at its peak as 'the greatest copper port in the country'.	Q14
But what can you do and see on your visit today? Here are just a few highlights. We suggest you start with the visit to the copper mine. <u>Travel on converted mining trains and journey into the depths of the mountain along seams once worked by hundreds of miners</u> . Watch out especially for the great pumping machines which rid the mine of water. But please be warned that, <u>like all mines</u> , ours is very dark and closed in and we do say that children under five and also dogs should NOT be taken into the mine.	Q16
The next recommended visit is to the village school. While looking round the classrooms. take a special look at our display of games, which is one of the largest in the world. And it's recommended that you time your visit to coincide with a guided tour. This will give you the opportunity to ask lots of questions. Near the school is the beautiful old sailing ketch called 'The George'. You are welcome to board the boat and look round the cabins. Look out for the ship's wheel which was missing until only five years ago when it was dredged out of the silt by a local fisherman. We have no idea how it got there but it's been polished and	Q18 Q19
proudly restored to its original place on the boat. <u>Please take care going down the ladders</u> if you wish to visit the lower deck – we don't recommend you allow young children to use them	Q20

So we hope you have a memorable visit to Manham Port and will tell your friends all about us.

SECTION 3

TIM:

Hi, Laura – could you spare a few minutes to talk about the work placement you did last summer? I'm thinking of doing one myself

LAURA:

Hi, Tim. Sure.

TIM: Didn't you do yours at an environmental services company?

LAURA: That's right ... It's only a very small company and they needed

	someone to produce a company brochure, and I wanted to get some	
	business experience because I'm interested in a career in occupational	
	psychology in a business environment. It was good because I had overall	
	responsibility for the project.	
TIM:	What kind of skills do you think you developed on the placement? I mean,	
	apart from the ones you already had Did you have to do all the artwork	
	for the brochure, the layout and everything?	
LAURA:	We hired the services of a professional photographer for that. I did have	
	to use my IT skills to a certain extent because I cut and pasted text from	
	marketing leaflets, but that didn't involve anything I hadn't done before.	Q21 & 22
TIM:	Do you think you got any better at managing your time and prioritising things? You always used to say you had trouble with that	Q21 & 22
LAURA:	Oh. definitely. There was so much pressure to meet the project deadline.	
LAURA:	And I also got better at explaining things and asserting my opinions.	Q21 & 22
	because I had to have weekly consultations with the marketing manager	Q27 G22
	and give him a progress report.	
TIM:	It sounds as if you got a lot out of it then.	
LAURA:	Absolutely. It was really worthwhile But you know, the company	
	benefited too	
TIM:	Yes, they must have done. After all, if they'd used a professional	
	advertising agency to produce their brochure instead of doing it in-house,	
	presumably they'd have paid a lot more?	
LAURA:	Oh, yes. I worked it out – it would have been 250 per cent more. And I	Q23 & 24
	thought the end result was good, even though we did everything on site.	
	The company has quite a powerful computer and I managed to borrow	
	some scanning software from the university. The new brochure looks	Q23 & 24
TIM	really professional; it enhances the image of the company straight away.	Q23 & 24
TIM:	So in the long run it should help them to attract clients, and improve their sales figures?	
LAURA:	That's the idea. Yeah.	
		•
TIM:	Well, all in all it sounds very positive – I think I will go ahead and apply for	
	a placement myself. How do I go about it?	
LAURA:	It's easy enough to do, because there's a government agency called	
	STEP – S-T-E-P – that organises placements for students. You should	
	start by getting their booklet with all the details - I expect you can	
	download one from their website.	
TIM:	Actually, they've got copies in the psychology department – I've seen	Q25
	them there. I'll just go to the office and pick one up.	
LAURA:	Right. And then if I were you, after I'd looked at it I'd go over all the	
TIME	options with someone	
TIM:	I suppose I should ask my tutor's advice. He knows more about me than anyone.	
LAURA:	One of the career officers would be better, they've got more knowledge	Q26
LAUKA.	about the jobs market than your personal tutor would have.	QZU
TIM:	OK	
LAURA:	And then when you know what you want you can register with STEP –	
	you'll find their address in the booklet. And once you've registered they	
	assign you to a mentor who looks after your application.	
TIM:	And then I suppose you just sit back and wait till you hear something?	
LAURA:	They told me at the careers office that it's best to be proactive, and get	Q27
4.40		

	updates yourself by checking the website for new placement alerts. Your	
	mentor is supposed to keep you informed, but you can't rely on that.	
TIM:	I don't suppose it's a good idea to get in touch with companies directly, is	
	it?	
LAURA:	Not really But it is the company who notifies you if they want you to go	Q28
	for an interview. You get a letter of invitation or an email from personnel	
	departments.	
TIM:	And do I reply directly to them?	
LAURA:	Yes. vou do. STEP only gets involved again once you've been made a	
	job offer.	
TIM:	Right So. once you've had an interview you should let your mentor	Q29
	know what the outcome is? I mean whether you're offered a job, and	
	whether you've decided to accept it?	
LAURA:	That's right. They'll inform the careers office once a placement has been	
	agreed, so you don't have to do that.	
TIM:	Is that all then?	
LAURA:	More or less. Only once you've accepted an offer you'll probably have to	
	supply a reference, because the placement will be conditional on that.	
	And that's something you should ask your own tutor to provide. He knows	Q30
	about your academic ability and also about your qualities, like reliability.	
TIM:	Well, thanks very much for the information – I'm starting to look forward	
	-	

SECTION 4

Today we're going to look at an important area of science, namely nanotechnology. So what is it? Nano means tiny, so it's science and engineering on the scale of atoms and molecules. The idea is that by controlling and rearranging atoms, you can literally create anything. However, as we'll see, the science of the small has some big implications affecting us in many ways.

There's no doubt that nanotechnology promises so much for civilisation. However, all new technologies have their teething problems. And with nanotechnology. society often gets the wrong idea about its capabilities. Numerous science-fiction books and movies have raised people's fears about nanotechnology — with scenarios such as inserting little nano-robots into your body that monitor everything you do without you realising it, or self-replicating nano-robots that eventually take over the world.

So how do we safeguard such a potentially powerful technology? <u>Some scientists</u> Q32 recommend that nano-particles be treated as new chemicals with separate safety tests and clear labelling. They believe that greater care should also be taken with nano-particles in laboratories and factories. Others have called for a withdrawal of new nano products such as cosmetics and a temporary halt to many kinds of nanotech research.

But as far as I'm concerned there's a need to plough ahead with the discoveries and applications of nanotechnology. I really believe that most scientists would welcome a way to guard against unethical uses of such technology. We can't go around thinking that all innovation is bad, all advancement is bad. As with the debate about any new technology, it is how you use it that's important. So let's look at some of its possible uses.

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Thanks to nanotechnology, there could be a major breakthrough in the field of transportation with the production of more durable metals. These could be virtually Q34 unbreakable, lighter and much more pliable leading to planes that are 50 times lighter than at present. Those same improved capabilities will dramatically reduce the cost of travelling Q35 into space making it more accessible to ordinary people and opening up a totally new holiday destination.

In terms of technology, the computer industry will be able to shrink computer parts down to minute sizes. We need nanotechnology in order to create a new generation of computers that will work even faster and will have a million times more memory but will be about the size of a sugar cube. Nanotechnology could also revolutionise the way that we generate power. The cost of solar cells will be drastically reduced so harnessing this energy will be far more economical than at present.

Q36

Q37

But nanotechnology has much wider applications than this and could have an enormous

impact on our environment. For instance, tiny airborne nano-robots could be programmed to actually rebuild the ozone layer, which could lessen the impact of global warming on our planet. That's a pretty amazing thought, isn't it? On a more local scale, this new technology could help with the clean-up of environmental disasters as nanotechnology will Q38 allow us to remove oil and other contaminants from the water far more effectively. And, if nanotechnology progresses as expected - as a sort of building block set of about 90 atoms - then you could build anything you wanted from the bottom up. In terms of production, this Q39 means that you only use what you need and so there wouldn't be any waste.

The notion that you could create anything at all has major implications for our health. It means that we'll eventually be able to replicate anything. This would have a phenomenal effect on our society. In time it could even lead to the eradication of famine through the introduction of machines that produce food to feed the hungry.

Q40

But it's in the area of medicine that nanotechnology may have its biggest impact. How we detect disease will change as tiny biosensors are developed to analyse tests in minutes rather than days. There's even speculation nano-robots could be used to slow the ageing process, lengthening life expectancy.

As you can see, I'm very excited by the implications that could be available to us in the next few decades. Just how long it'll take, I honestly don't know.