# Homework - Unit 5 - Lesson 4

# Listening

## Exercise 1.06 Names

Audio

***Questions 1–12***

*In the spaces provided, write down the names you hear. Each will be spelled out two times.*

*E.g. Brian Singer, Kowolski*

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

## Exercise 1.07 Geographical names

Audio

***Questions 1–16***

*In the spaces provided, write down the geographical names you hear. Each will be read three times.*

*E.g. Buffalo Creek, London*

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____

## Exercise 1.08 Proper nouns

Audio

***Questions 1–12***

*In the spaces provided, write down the proper nouns you hear. Each will be read three times.*

*E.g. Milky Way, Thames Barrier*

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

LIVEWORKSHEETS

# Reading

Reading
Questions 1–13

**READING PASSAGE**

*You should spend about 20 minutes on* ***Questions 1–13****, which are based on the Reading Passage below.*

*A report from Public Health England in February this year found that over-65s in Britain are living longer than ever before — but we want life in our years, not just years in our lives.*

*Here's what our generation can hope for.*

**Younger skin**

It's an exciting idea for those of us who seem to find a new wrinkle each morning: a wearable film applied to the face or body as a thin, transparent layer, making skin look younger. The new silicone-based polymer film, dubbed 'second skin', was developed at the Massachusetts Institute of Technology. After tests, researchers reported that it covered eye bags and wrinkles, making skin look smoother and firmer, and more elastic and springy. The product is applied as two creams, one after the other, that dry into a film and can then be peeled off and discarded



24 hours later. The treatment was co-developed with a cosmetic company and while the MIT researchers refused to speculate on when the treatment might become available, Dr Agus, who wasn't involved in the research says: 'My gut is we'll see it sometime in 2017.'

**Fighting disease**

Having your DNA genetically modified or 'edited' could be available within five years, says Dr Agus. Last year, biotech company Editas Medicine announced plans to become the first lab in the world to genetically edit the DNA of patients suffering from a genetic condition that prevents the normal functioning of the retina.It's possible thanks to new cutting-edge gene-editing technology Crispr, which stands for Clustered, Regularly Interspaced, Short Palindromic Repeat, a naturally occurring defence mechanism used by bacteria that the technology harnesses to erase mutated areas of DNA.

'Crispr acts like scissors to cut out defective pieces of DNA so they can be replaced with other pieces of DNA,' says Dr Agus. 'Using this technique, researchers have managed to tweak the genes in fish that affect how they age. It offers hope of finding treatments that can help us age slower and live longer.' But there are ethical concerns, says Dr Agus. 'The technology could be potentially used to control qualities such as intelligence, athleticism and beauty, and we don't know what revising the human genome to create permanent genetic modifications could mean for future generations.'

**Living longer**

While a bona-fide proven pill that could add years to our lives is not yet reality, it's on the way, says UCL ageing researcher Dr Alic – most likely in the form of drugs currently available for other conditions that in trials have been shown to have an anti-ageing effect. In June last year, Dr Alic's team found that fruit flies given a cancer drug lived 12 per cent longer than average and last month, another UCL team found the drug lithium – routinely prescribed for the treatment of bipolar disorder – could lead to a lifespan increased by up to 18 per cent.

Meanwhile, a medicine called rapamycin, used to suppress the immune system in transplant patients, has been shown in mice trials to prolong life by 38 per cent, and in one study last month on dogs, it improved their heart functionality. While its use as an anti-ageing drug is more than a decade off, Dr Alic explains, rapamycin has been shown in humans to help vaccine responses in the elderly. 'That's a positive effect on which we could base potential treatment,' he says. But it's no wonder drug, he says and side-effects include suppression of the immune system.

**A better quality life**

While we may not be able to live forever, scientists are confident that they can extend the quality of life to a much older age. Scientists now believe that it is possible to actually stop people growing old as quickly and help them live in good health well into their 110s and 120s. Although it might seem like science fiction, researchers have already proven that the diabetes drug metformin extends the life of animals, and the Food and Drug Administration in the US has now given the go ahead for a trial to see if the same effects can be replicated in humans. 'This would be the most important medical intervention in the modern era, an ability to slow ageing' says Dr Jay Olshansky, University of Illinois, Chicago. If successful, it will mean that a person in their 70s would be as biologically healthy as a 50 year old. It could usher in a new era of 'geroscience' where doctors would no longer fight individual conditions like cancer, diabetes and dementia, but instead treat the underlying mechanism – ageing. Professor Lithgow believes that, in the future, young people may be given a type of ageing 'vaccine' to slow down ageing. He believes it could have a far bigger impact on extending population lifespan than finding a cure for cancer. 'If we were to cure all cancers it would only raise life expectancy by around three years, because something else is coming behind the cancer, but if we could slow down the ageing process, you could dramatically improve how long people can live,' he said. 'We know that it is possible for handfuls of people to live to a very old age and still be physically and socially active, so clearly they carry some kind of protection in their bodies. They are essentially not ageing as quickly. If we can harness that, then everyone can achieve those lifespans.'



LIVEWORKSHEETS

### Questions 1–7

*Complete the summary below.*

*Choose* ***NO MORE THAN TWO WORDS AND/OR A NUMBER*** *from the passage for each answer.*

People want to live a longer and better quality life. The Massachusetts Institute of Technology has produced something called a **1** ..... to make our skin look younger. It can be removed **2** ..... one day later. Changing our DNA might be possible in **3** ..... time. It works by using a protection system **4** ..... use to remove weak parts. So far, scientists have used it to change how **5** ..... age. It's possible this could help humans survive **6** ..... . It might also be used to affect **7** ..... , physical ability and attractiveness.

### Questions 8–11

*Choose the correct letter* ***A, B, C*** *or* ***D.***

**8** Anti-aging drugs
- **A** are already available and can add years to your life.
- **B** are being tested on fruit flies.
- **C** are likely to come from drugs we already have for treating major illnesses.
- **D** make people live 12 to 18% longer.

**9** The medicine rapamycin
- **A** increases peoples' lives by 38%.
- **B** helps protect old people from future illnesses.
- **C** is a vaccine for old people.
- **D** has very few side-effects on people.

**10** Scientists are convinced that
- **A** we may be able to slow down the ageing process.
- **B** it is possible to live forever.
- **C** we need good healthcare for those in their 110s and 120s.
- **D** we should focus on quality of life rather than extending it.

**11** A trial of the drug metformin has been authorised in the US
- **A** to treat diabetes in animals.
- **B** to prove that it can extend the lifespan of animals.
- **C** to check if it can increase human as well as animal lifespans.
- **D** to test if people in their 70s are as healthy as people in their 50s.

### Questions 12 and 13

*Answer the questions below.*

*Choose* ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

**12** What do we need to combat to increase life expectancy?

**13** What do some old people have in their system that others do not?

LIVEWORKSHEETS