

Reading Future Change 3

Unit 1. Smart Use of Smartphones

Smartphones have become essential to modern people. On the bus or subway, everyone is looking at their smartphone with their head down. Let's take a look at the advantages and disadvantages of smartphones.

One advantage of smartphones is their portability. Technology has evolved so that we can fit our phones in the palm of our hand. Phones are also more durable and, though small, their batteries last for long stretches of time.

The second advantage is communication. You can reach friends, family, and co-workers 24 hours a day, and get in touch with them for things like meeting up or asking a question.

Third, internet access is easy. You can get real-time access to the internet, access a large amount of information, and you can search for the specific information you want. Our cell phone network is so well developed, so we can use it to access the web for entertainment or information anytime, anywhere.

Fourth, you don't have to buy a separate camera. Smartphones have become more and more capable, as long as you have your smartphone, you also always have a camera available to use.

Fifth, you can stream or download music for convenient listening anytime, anywhere.

Now let's look at the disadvantages.

The first is 'turtle neck syndrome.' Looking at a smartphone all day long causes some bad symptoms, such as shoulder pain, headaches, fatigue¹, back pain, poor circulation, and reduced efficiency at work.

The second major issue is poor vision. When you look at your cellphone at night, the light from your screen will strain your eyes. Long-term exposure can damage your eyes, making your eyesight worse.

Thirdly, there is a security issue; it is likely that your smartphones private information is easily leaked.

Lastly, and perhaps most impactful, time is wasted. Social networking sites have a wide range of provocative² materials, leading to increased time spent on smartphones rather than on more important ventures³.

¹ fatigue: n. extreme tiredness

² provocative: adj. causing thought about interesting subjects

³ venture: n. a new activity, usually in business, that involves risk or uncertainty

Unit 2. Street Food

When we go on a trip, we can see many different street foods. Let's take a look at some of the popular food on the streets overseas.

Italy's famous arancini have a deep-fried, crunchy crust filled with different, savory mixtures. The fillings and shape of the arancini can vary, including the traditional arancini, which come in a ball shape, filled with meat sauce and tomatoes. There is also the more modern version, which is pear-shaped and filled with mozzarella and prosciutto (a type of ham). There are also healthier variants⁴ containing eggplant, tomato, and diced capers.

When they were first introduced, arancini were simply called 'rice balls.' Also called 'rice frittata,' arancini have been a favorite Italian street food for many centuries.

Halo-halo is a famous, Philippine, cold, sweet treat. What sets it apart from most other desserts is its use of red mung beans, white beans, or chickpeas. One secret to having the best halo-halo is to use freshly shaved ice. If the ice is not freshly shaved, it will not mix properly with the other ingredients.

Halo-halo is said to have been invented in the 1920s or 1930s, and to have been developed based on Japanese 'mitsumame.' Halo-halo can vary widely in ingredients and, therefore, comes in a wide variety of flavors. Halo-halo is always served cold.

Chinese hu-lu, also known as 'tanghulu,' is a fruit-based snack commonly seen on the streets of China during the winter months. Similar to candied apples, the fruit is coated in a crispy shell of sugar. The snack can be made using any kind of fruit and even nuts—anything that can be skewered on a stick.

There is a legend behind the invention of hu-lu, about an emperor who became ill. The physician said the emperor must eat ten hawthorn berries every meal, to be cured, but the emperor found he could only eat the berries if they were coated in sugar. As word of the emperor's miraculous recovery reached the townsfolk⁵, they too began eating the candy-coated berries for their health.

⁴ variant: n. something that is slightly different from other similar things

⁵ townsfolk: n. the people who live in a particular town, considered as a group

Unit 3. Interesting Festivals Around the World

Carnival, a festival in Brazil, is one of the most famous events in the world. The date the festival starts changes each year because the festival always begins on the Friday afternoon before Ash Wednesday. Ash Wednesday marks the beginning of Lent⁶; during Lent, many Christians do not eat meat. Carnival draws its name from the Italian phrase 'carne levare,' which translates to: 'remove meat.'

Carnival is famous for its bright costumes, huge parades, and mass-gatherings of *samba* dancers. For the weeklong festival, the country of Brazil unifies in energetic celebrations, with all non-essential businesses closing. The festivities carry on night and day, drawing millions of people out into the streets.

The beginning of spring in India is an important event. Holi is a Hindu festival dating all the way back to the 4th century. It is a national Indian holiday which always takes place on the last, full-moon day of the Hindu calendar, usually in March.

Holi festival has origins in Hindu mythology, specifically the legend of Holika, with the underlying celebratory theme of Holi being that 'good always triumphs over evil.' One of its most important features is the lighting of bonfires, at a specific, holy time, and the collection of ashes, which are then smeared on the body in an act of purification.

Rangwali Holi, which is perhaps the best-known aspect of the festival, takes place the next day. During Rangwali Holi, people spend the whole day throwing colored powder in the air and smearing⁷ it on one another.

La Tomatina, held in Spain, is also known as the 'World's Biggest Food Fight.' It is held in the small town of Bunol on the last Wednesday of every August. Over one hundred tons of ripe tomatoes are thrown in the streets. After the tomato-throwing is over, the streets are several inches thick with tomato pulp. Many people bring goggles to the festival to prevent the acidic juices from stinging their eyes! After the tomato battle is over, firefighters come out to hose down the streets, as well as the people.

⁶ Lent: n. in Christian religions, the 40 days before Easter

⁷ smear: v. to spread something soft or wet over a surface

Unit 4. Good Luck and Bad Luck

Superstitions are prevalent across all cultures. One popular superstition, originating from Ireland, is that the four-leaf clover brings good luck. There is a famous story that Napoleon happened to be passing by a field of clovers, during the Battle of Waterloo, when he saw a four-leaf clover. The moment he bent down to pick it, a bullet was fired at his head. Thanks to picking the clover, the bullet missed its mark. The clover is credited with saving Napoleon's life.

There is also a lucky number that Westerners love: seven. There are many stories in which seven is a symbolic, positive influence. The lucky number seven has its origins in ancient times. One association⁸ is that, before the invention of the telescope, only seven planets were visible; this explains why many cultures adopted religious beliefs based on seven deities or gods, thus making seven a holy number.

The famous mathematician, Pythagoras, also believed seven to be a perfect number.

In China, the number eight is considered lucky. It is said that the Chinese pronunciation of eight (Ba in Chinese) is similar to the pronunciation of the word that means "make a fortune." It contains meanings of prosperity, success, and high social status, too. So all businessmen favor it very much. Moreover, in some areas of China, people prefer to pay much more money for a telephone number with eight in it. They also favor residences on the eighth floor of buildings. In 1990s, a vehicle identification number with eight was once auctioned off for five million Hong Kong dollars.

Not all superstitions are positive, though. In many Eastern languages, since the number four has the same phonetic sound as the word "death," it is associated with bad luck. Many people avoid the number four as much as possible. Mentioning the number four at festivals or around a sick loved one is always avoided. Giving gifts of four is also frowned upon⁹. In fact, there is so much concern over the number four, that fear of the number four has its own name: 'tetraphobia.'

⁸ association: n. a group of people united in an organization because of their common interests

⁹ frowned upon: phrasal v. to disapprove of something

Unit 5. Insects as Food

Although insects are small, creepy¹⁰ looking animals, using them as a food source has great advantages.

An insect is a small arthropod¹¹ divided into three parts: head, chest, and stomach. It has six legs and, sometimes, wings. There are about 800,000 species of insects, and they can be found everywhere in the world; they settled on Earth long before us, about 350 million years ago. With massive reproduction capacity, there are more than 200 million insects for every human on the planet. Therefore, as ingredients, they are readily available.

Insects can be grown in small spaces and require minimal feed. Their meat is thought to be higher in protein than other livestock¹², giving them a higher nutritional value.

However, many people would not consider eating an insect, so the biggest task faced by chefs is to reduce human aversion¹³ to the meal. Recently, cooks have started drying insects and grinding them finely to make powdered insect powder. The powder is highly digestible¹⁴ and contains essential amino acids as well as vitamins, minerals, healthy fats and antioxidants. Powders can be used to make pasta, any number of baked goods, protein bars, smoothies, and more.

Furthermore, studies show that having more insects in our diet could combat¹⁵ obesity¹⁶ and promote all-around health.

Powdered insects, such as grasshoppers, crickets, mealworms, and more are now available to order online. You can also find many great suggestions for insect recipes online as well.

¹⁰ creepy: adj. strange and slightly frightening

¹¹ arthropod: n. a member of a group of animals with no spine (= bone down the center of the back), a hard outer skin, legs with bones joined together, and a body divided into sections, for example a spider, crab, or ant

¹² livestock: n. animals kept on a farm, such as cows, sheep, chickens, and pigs

¹³ aversion: n. a feeling of strong dislike or unwillingness to do something

¹⁴ digestible: adj. easy to digest

¹⁵ combat: v. to try to stop something unpleasant or harmful from happening or increasing

¹⁶ obesity: n. the fact of being extremely fat, in a way that is dangerous for health

Unit 6. World Penguin Day

World Penguin Day is celebrated by the press all around the world in an effort to remind people that we must protect penguins. The date April 25th is designated as World Penguin Day because scientists say this the time of the year that penguins in Antarctica begin migrating northward.

There are eighteen different species of penguins in the world, and many have been named endangered species. According to a report by the Seoul Federation for Environmental Movement, penguins in Antarctica are declining in population due to: reckless increases in krill fishing operations in Antarctica; reduced food supplies; and a reduction in the polar ice caps due to climate change.

Antarctica, known for its abundant¹⁷ resources and sea life since the 1800s. Fish and krill are in demand all over the world, and fishermen are presently catching up to 300,000 tons per year. This is reducing the basic food source of penguins, seals, and many types of fish and whales. As a result of climate change, the oceans have also seen an increase in the number of microscopic marine plants, which is upsetting the penguins' ecosystem.

Dramatic weather changes have also been reducing the area of the ice which is the habitat of penguins. Penguins are also suffering now that it rains a lot more on Earth, rather than snowing, because of global warming. Baby penguins are hairy and not waterproof, so they are more likely to lose body heat when exposed to rain, causing them to get sick and die. Many baby penguins that survive the winter under their parents' wings only to die later due to rain.

The dramatic effects of climate change should be acknowledged, and World Penguin Day on April 25th helps us remember the plight¹⁸ of the penguins and other animals worldwide.

¹⁷ abundant: adj. more than enough; a lot of

¹⁸ plight: n. an unpleasant condition, esp. a serious, sad, or difficult one

Unit 7. The Amazing Cockroach

If there is one creature which wins the prize for being hardest to kill, it is the cockroach. Cockroaches may be disgusting, but they are physical wonders. Built to withstand¹⁹ temperatures as cold as 32 degrees Fahrenheit, scientists have also confirmed that the cockroach can't survive a nuclear explosion but they can endure far greater levels of radiation than us humans; this is due to their simple body design and slow cell cycles—cockroaches spend up to 75% of their time resting.

A cockroach has an open circulatory system, which means rather than having their blood pumped through arteries²⁰ and veins, as humans do, their blood is instead circulated between cells, making it evenly distributed throughout their body. This open circulatory system is why, when a cockroach loses its head, it can continue to live for up to a week. The only reason it does eventually die is because it lacks a mouth to eat or drink.

They can also live underwater for up to 40 minutes. They have a low requirement for oxygen and breathing creates a loss of water, so the insects frequently stop breathing as an efficient way to retain moisture. Therefore, they have developed an excellent ability to hold their breath.

The insect is very fast, even from birth. A baby cockroach, which is about the size of a speck²¹ of dust, can run as fast as its parents—up to three miles per hour. Cockroaches take about 36 days to fully mature. As adults, females lay ten to forty eggs at a time. Eggs take six to eight weeks to hatch, and one female can produce around 150 offspring²² in her lifetime. The cockroaches' average lifespan is one year.

One thing cockroaches do not like is very high-frequency sound. Such noise can confuse, or even kill, the insect. You can purchase devices which emit ultrasonic²³ sound waves to help drive off the pests away. This method, in combination with regular vacuuming and keeping areas free of stray bits of food, used jointly with pesticides²⁴, is the best way to eliminate these pests from your home.

¹⁹ withstand: v. to receive without being changed or damaged by something powerful; bear

²⁰ artery: n. one of the larger tubes that carry blood from the heart to other parts of the body

²¹ speck: n. a very small mark, piece, or amount

²² offspring: n. the baby or babies of an animal

²³ ultrasonic: adj. (of sound waves) too high for people to hear

²⁴ pesticide: n. a chemical substance used to kill harmful insects, small animals, wild plants, and other unwanted organisms

Unit 8. Animal Defenses

Animals evolve to survive. Evolution means that their bodies have changed over time to allow them to adapt to live better in their surroundings. Animals and their surroundings evolve and develop together.

For example, the giraffe's neck has elongated over time. Giraffes eat the leaves of the acacia tree. As the tree would prefer not to be eaten, it has grown taller and taller to try and escape the giraffe. However, in response, the giraffe has adapted, and its neck length has increased.

Different adaptations occur depending on the animals' position in the food chain. Animals with a lot of predators²⁵ will have a lot of defensive adaptations, such as camouflage, increased speed, quills, or bad smells. One interesting defense mechanism is called "imitation." Similar to camouflage, imitation is where an animal can make itself appear as an object, or even another animal, to confuse and deter the predator.

Predators have evolved offensively. They are fast and fierce. They need a good sense of smell and sharp eyes to hunt. For instance, a shark has an impressive sense of smell and can detect blood from 400 to 500 yards, lions have excellent vision, and snakes use infrared vision to sense the heat from their prey.

Animals continue to evolve. The cause-and-effect development of animals and their environments is what helps maintain a proper balance in their ecosystems. That is one major issue with human beings developing and destroying animals' habitats. We are changing their habitats too quickly; the animals cannot respond to the sudden change, as evolution takes hundreds or thousands of years to make adaptations. That is why it is important to understand animals' evolutionary paths and to preserve and respect animals' homes.

²⁵ predator: n. an animal that hunts and kills other animals for food

Unit 9. AI Music

In February 1996, IBM's AI system "Deep Blue" beat the world champion chess player. In 2017, a self-driving taxi service was launched in Phoenix, Arizona. AI has progressed in leaps and bounds over the past few decades. Presently, it plays important roles in medicine, robotics, stock trading, and music.

Artificial Intelligence Music, or AIM, has been a topic of conversation since 1974. AI begins by "listening" to human-made compositions. Once it has gathered enough data, it can create an algorithm. An algorithm is a set of steps or rules used to solve a problem. The AI can then use that algorithm to compose music.

One of the most impressive things about artificial intelligence is that, in a single moment, using its collected data, it can compose a piece in thirty seconds, which mimics²⁶ the songs of genius composers.

Music is no longer a human creation.

Nowadays, anyone can interact with AI to help them create custom²⁷ music for use in their podcasts, videos, or other projects. Start by entering some details, such as your choice of genre, speed, instruments, and mood. The AI will then research the information it needs from a database, and compose a unique and original song meeting your specified criteria.

Prior to 2018, AI music was of poor quality, but by 2018, it was so elaborate²⁸ that it was difficult to distinguish AIM from human-made music. This is a good example of the rapid evolution of AI learning.

²⁶ mimic v. to behave or work in the same way as something else

²⁷ custom: n. made for a particular person to buy

²⁸ elaborate: v. containing a lot of connected parts or many complicated details

Unit 10. Sam Cooke: The King of Soul

In 1931, a great soul music sensation named Sam Cooke was born. Commonly known as 'The King of Soul,' he was remarkable for a number of reasons and acted in a variety of roles, including as a soul and gospel singer, a composer, and a prolific²⁹ songwriter. He also founded a record label as well as a publishing company. He was the first black musician to self-manage the business aspect of his career. He was also active in the Civil Rights Movement.

As a child, he worked with his siblings in a group called the Singing Children. As a teenager, he became known as the lead singer of the Highway QC's, a group which he joined at age 14.

His talent began to get even more attention when he replaced gospel tenor R.H. Harris as the lead singer in the Soul Stirrers. The first recording, "Jesus Gave Me Water," was a gospel song made in 1951. When they performed this and other hits, young girls would rush to the stage just to get a glimpse of the singer; Cooke is often credited with popularizing gospel music among more youthful crowds.

He went on to record some of his most popular songs in the soul and pop genre. At first, he attempted to release his new style of music under the alias 'Dale Cook,' in order to keep his pop music and gospel music careers separate, but his fans knew his distinct vocals and quickly recognized him. Some people were unhappy about his change of music genres; this later led to a disagreement and after an argument, Cooke left the music label he had been working with.

Born Samuel Cook, he added an 'e' to his last name in 1957, to signify the beginning of his new direction into soul/pop music in 1957. Cooke's soul music quickly became a huge success. He released many singles which topped the pop and R&B charts.

Tragically, Cooke died at the age of just 33. It is uncertain what exactly happened the night of his death, but it is known for certain he was shot in the chest by the owner of a motel in which he was staying. The gunshot wound was fatal. Cooke died at the Hacienda Motel in Los Angeles, California, in 1964.

Cooke died, but his music lived on; he would go on to have three more top forty hits after his death.

²⁹ prolific: adj. producing a great number or amount of something

Unit 11. Jazz

Louis Armstrong was born in 1901 in New Orleans. The neighborhood he grew up in was so poor; it was nicknamed "The Battlefield." His father was a day laborer in a slum and abandoned his family shortly after Louis' birth. Armstrong was raised by his grandmother until age five, then returned to his mother. Armstrong helped contribute financially to the household by collecting junk and selling coal. He also organized a quartet with his peers and sang on the streets to collect coins.

At age eleven, he was arrested for firing his stepfather's gun, and placed in a juvenile detention center. At the center, he received a musical instrument called the cornet, which is a little bit smaller than a trumpet. If it weren't for that incident, he might never have become a musician.

He would later move to Chicago and play in Edward "Kid" Ory's band. He then led the group 'Hot Five' in 1925 and did scat singing for the first time. Scat is a type of singing featuring improvisation³⁰ with wordless vocals using nonsense syllables. Armstrong would go on to make his mark³¹ by performing all over the world. He visited Korea in 1963 and performed for two weeks. He did countless tours around the world in his lifetime, both as a solo artist as well as performing with others.

In 1963, Armstrong recorded "Hello, Dolly!" which finally unseated³² the Beatles from their three-and-a-half month streak³³ on top of the music charts.

In addition to being a singer and musician, Armstrong has also acted in various fields, including movies, radio, and TV shows.

Despite his bad health, and against his doctor's advice, in March of 1971, Armstrong played a two-week long show. After this, he had a heart attack and was hospitalized. His health became worse, and a few months later, he died of a heart attack in his sleep.

When the poet Yevgeny Yevtushenko heard of his death, he said, "Angel Gabriel, give the trumpet to Louis Armstrong." The next year, Louis Armstrong received the Lifetime Achievement Award at the Grammy Awards.

In October, 2003, the Louis Armstrong House Museum opened in New York.

³⁰ improvisation: n. a performance that an actor, musician, etc. has not practiced or planned

³¹ make a/someone's mark: idiom. to have an important effect on something

³² unseat: v. to remove someone from power, especially as a result of an election

³³ streak: n. something that happens or is done over a period of time without a break

Unit 12. Music Therapy

Music therapy is a method which uses musical activities to improve one's physical and mental health, to improve an individual's quality of life, and to bring about positive behavioral changes. This therapy can be used one-on-one³⁴, or in groups, and is based on studies in behavioral science.

Some of its proven uses include:

1. Improved thinking and reasoning skills, including: learning, perception, memory, and impulse³⁵ control
2. Better management of pain and stress
3. Increased communication skills
4. Increased attention span and alertness
5. Improved internal and external awareness

There are many different types of music therapy which take different approaches and target specific problems; however, it is mainly divided into two categories: 'receptive music therapy,' and 'active music therapy.' Receptive music therapy involves relaxing while listening to live or recorded music, and active music therapy involves dancing, singing, or playing an instrument.

Music can be a nonverbal³⁶ art medium³⁷, so it is especially useful for autistic³⁸ children, who have trouble with verbalization³⁹. Autism is a type of overall developmental disorder⁴⁰ that causes difficulties in communication, especially in language and abstract concepts. Most autistic children feel a great deal of interested in music, respond well to it, and sometimes show great musical talents.

Music therapy for autistic children should focus on sensory, social, emotional, and language development, as well as motor skills⁴¹ development. For social and emotional development, children can hold hands with a therapist, shake their bodies to the music, and interact with each other through copying other people's rhythms.

³⁴ one-on-one: adj. happening between only two people

³⁵ impulse: n. a sudden strong wish to do something

³⁶ nonverbal: adj. expressed in ways other than with words.

³⁷ medium: n. a method or way of expressing something

³⁸ autistic: adj. to have a disorder that affects a person's ability to communicate with others

³⁹ verbalization: n. express ideas, opinions, or emotions in words

⁴⁰ developmental disorder: n. a set of conditions in childhood that leads to problems in a person's mental, physical, or emotional development

⁴¹ motor skill: n. movements and actions of the bone structures

Unit 13. Coding Jobs

Former American president Barack Obama had a strong belief in the importance of coding. This is illustrated by a comment he made at a coding education event in 2014: "Coding is a matter of the future of the country as well as individuals, and I want every American to learn to code."

Obama's endorsement⁴² shows the world considers the information technology and software industry to be a source of national competitiveness based on coding education.

Why is the whole world so interested in coding and programming in computer languages? This is because the industrial world has changed; we exist in the era of the fourth industrial revolution. On the forefront⁴³ of that revolution is the highly competitive field of artificial intelligence and Information and Communication Technology, or ICT.

Artificial intelligence can now address simple knowledge processing, and perform difficult physical tasks; it has the required thinking skills, creativity, information collection, information and processing, information literacy, and problem-solving skills to do many jobs which were, in the past, only capable of being performed by humans.

Coding enables abstract math to be turned into a physical phenomenon⁴⁴; it is the answer to further developing AI's capabilities described above. The coding process, involving sequence and repetition, is used to write algorithms and to develop computational thinking skills which can aid in the process of troubleshooting⁴⁵ problems.

Kim Jung-ho, a professor at the Korea Advanced Institute of Science and Technology (or KAIST), explained it, saying coding is a language; just like any other language, it is used to communicate. Humans use it to communicate with computers, and computers use it to communicate with other computers. Coding will make up the vast majority of jobs in the future, so students should be focusing their career efforts and skill development on these new, rapidly developing fields.

⁴² endorsement: n. the act of saying that you approve of or support something or someone

⁴³ forefront: n. the most important or leading position

⁴⁴ phenomenon: n. something that exists and can be seen, felt, tasted, etc., especially something unusual or interesting

⁴⁵ troubleshooting: n. discovering why something does not work effectively and making suggestions about how to improve it

Unit 14. Choosing a Career

It is not easy to decide on just one of many different career paths. The three criteria for finding the right career are as follows:

1. Would you prefer a job which uses your brain or body?
2. Would you rather work alone or in a group?
3. Would you rather make a lot of money or is it more important that you have a job that interests you?

Some jobs use a lot of brainpower, but don't involve a lot of manual labor. Others are just the opposite. Professors and researchers are the two examples of cerebral⁴⁶ jobs; these professions require a lot of sitting, which can be comfortable, but they also involve a lot of stress. On the other hand, physical professions, such as an athlete, welder⁴⁷, or auto mechanic, have strong, healthy bodies, with clearer objectives and results.

Working in a group can be tricky; however, working alone can also have its difficulties. Truck drivers, photographers, and writers often have to work alone. Working alone, one must have a strong work ethic and high motivation. However, many people prefer to set their own pace and also enjoy their solitary⁴⁸ time.

On the other hand, broadcasters, journalists, actors, firefighters, and retail workers often work in sets, groups, or teams. For instance, filmmaking is a collaboration between the actors, actresses, scriptwriters, set designers, and many other staff members, including the filming director, costume designer, and sound recording engineer. Also, team members do a lot of post-production work such as interviews and public appearances to promote the film.

In the past, many people worked alone, but as information and communications technology has evolved, it has become more common to communicate and collaborate, and businesses are more likely to prefer talent that can integrate well with and collaborate with organizations. However, when it is necessary to collaborate with others, the work stress-levels can be relatively high.

Finally, do you choose the real value of money or the ideal value of interest? If values are given to monetary matters, there are careers such as bankers, lawyers, accountants, and fund managers. These jobs are suitable for people who are realistic and practical. On the other hand, there are less well-paid jobs which are more rewarding in other ways, such as cartoonists, musicians, writers, entertainers, and athletes, who place more value on the interest they have in their work. Artists, for example, often pursue ideal value, but they work irregularly and efforts and payoffs are often inconsistent.

There are more criteria to choose from than these three questions, but it's a good place to start when trying to decide what kind of job you really want.

⁴⁶ cerebral: adj. relating to the brain, esp. the front part of the brain

⁴⁷ welder: n. a person whose job is to join two pieces of metal together permanently by melting the parts that touch

⁴⁸ solitary: adj. being the only one, or not being with other similar things, often by choice

Unit 15. Odd Jobs

Also known as “beta testing,” video game testing is considered a highly desirable job; however, it is also a very challenging career. Testers work for companies to thoroughly check games and make sure they have no “bugs”⁴⁹, “glitches”⁵⁰, or other problems. Their job is actually to try and “break” the game. To test a game, they must go through every part of it, working through and checking each menu, character, and each option.

There are millions of possible bugs in a game, and finding them can be time-consuming and repetitive. It is highly-detailed, monotonous⁵¹ work. One major upside⁵², however, is that you can do this type of work from home, and you can set your own hours. All you need is a quiet space and the right equipment and you’re ready to go.

Deodorant testers are used to check and see how well different products work. First, researchers take measurements from the tester to establish base levels of hormones⁵³, base heart rate, etc, as these things can all impact how much you sweat.

There are two types of sweat, stress-induced sweat, and activity-induced sweat. In order to check the tester for base levels of sweating, scientists put them through various tests that induce stress or make them do a physical activity and record the resultant⁵⁴ data. Researches then run trials on people using one armpit⁵⁵ coated in a certain deodorant, and the other armpit left bare, with no product, as a control. Hours or sometimes days later, the subject is then “smell tested,” and the results are recorded.

According to Extraordinary Jobs in the Food Industry, ice cream tasters can earn anywhere from 40,000— 100,000 USD annually. Also known as a “flavorologist”⁵⁶, testers must follow a rigorous⁵⁷, daily sampling schedule, making reports not only on taste, but also things like the ice cream’s flavor, texture, appearance, and smell.

It may sound like an amazing career, but drawbacks⁵⁸ to such an occupation are potentially serious and include: weight gain, an imposed, a limited diet before testing, and an increased risk of diabetes (a serious disease), due to the high sugar content in most ice cream.

⁴⁹ bug: n. a mistake or problem in a computer program

⁵⁰ glitch: n. a small problem or fault that prevents something from being successful or working as well as it should

⁵¹ monotonous: adj. not changing and therefore boring

⁵² upside: n. the advantage of a situation

⁵³ hormone: n. any of various chemicals made by living cells that influence the development, growth, etc. of an animal and are carried around the body in the blood

⁵⁴ resultant: adj. caused by the event or situation that you have just mentioned

⁵⁵ armpit: n. the hollow place under your arm where your arm joins your body

⁵⁶ flavorologist: n. a highly trained chemist who is very sensitive to smell and taste

⁵⁷ rigorous: adj. careful to look at or consider every part of something to make certain it is correct or safe

⁵⁸ drawback: a disadvantage or the negative part of a situation

Unit 16. Changing Careers

Mexico City is a massive metropolis, with over 19 million living in the Greater Mexico area. This area is served by a single, combined sewer⁵⁹ system; a combined system is one that collects both wastewater and the water runoff from storms.

This system includes over 7,400 miles of sewer pipes which need constant maintenance and service. That's where Carlos Barrios comes in.

In an 18-pound helmet and rubber diving suit, he appears like some sort of strange astronaut, being lowered on a mechanized platform into the depths of Mexico City's sewer system. Barrios' job is to sink into the disgusting waters of the sewers and clear blockages⁶⁰, such as garbage or overgrown tree roots, from the pipes.

He works with a partner, Julio Cesar Cu, who stays above ground to make sure Barrios is safe. Since the water is clouded⁶¹ with waste, a light would be of no use⁶², so Barrios must work in the dark, fully submerged in water, and dependant on Cu to make sure his air hose is running properly. Barrios feels his way forward, searching out the blockage that needs to be removed.

Though the job is dangerous and the smell is terrible, when Carlos gets the call to unblock a sewer, he goes to his duty with a broad smile. This is because, for 24 years, he worked as an accountant, sitting, pushing papers, and stuck at his desk all day. He says he has much more fun as a waste diver than he ever did adding columns of numbers. He is happy to be doing service work for his city.

This just goes to show that one person's 'nightmare job' is another's favorite career.

⁵⁹ sewer: n. a large pipe, usually underground, that is used for carrying waste water and human waste away from buildings to a place where they can be safely got rid of

⁶⁰ blockage: n. something that stops something else passing through, or the act of stopping something passing through

⁶¹ cloud: v. to become difficult to see through

⁶² be of no use: idiom. to not be useful, helpful, or possible