BÀI TẬP 1

A Remarkable Beetle

More than 4,000 species of these remarkable creatures have evolved and adapted to the world's different climates and the dung of its many animals. Australia's native dung beetles are scrub and woodland dwellers, specialising in coarse marsupial droppings and avoiding the soft cattle dung in which bush flies and buffalo flies breed. Some of the most remarkable beetles are the dung beetles, which spend almost their whole lives eating and breeding in dung'.

In the early 1960s George Bornemissza, then a scientist at the Australian Government's premier research organisation, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), suggested that dung beetles should be introduced to Australia to control dung-breeding flies. Between 1968 and 1982, the CSIRO imported insects from about 50 different species of dung beetle, from Asia, Europe and Africa, aiming to match them to different climatic zones in Australia. Of the 26 species that are known to have become successfully integrated into the local environment, only one, an African species released in northern Australia, has reached its natural boundary.

Introducing dung beetles into a pasture is a simple process: approximately 1,500 beetles are released, a handful at a time, into fresh cow pats[2] in the cow pasture.

The beetles immediately disappear beneath the pats digging and tunnelling and, if they successfully adapt to their new environment, soon become a permanent, self sustaining part of the local ecology. In time they multiply and within three or four years the benefits to the pasture are obvious.

Dung beetles work from the inside of the pat so they are sheltered from predators such as birds and foxes. Most species burrow into the soil and bury dung in tunnels directly underneath the pats, which are hollowed out from within. Some large species originating from France excavate tunnels to a depth of approximately 30 cm below the dung pat. These beetles make sausage-shaped brood chambers along the tunnels. The shallowest tunnels belong to a much smaller Spanish species that buries dung in chambers that hang like fruit from the branches of a pear tree. South African beetles dig narrow tunnels of approximately 20 cm below the surface of the pat. Some surface-dwelling beetles, including a South African species, cut perfectly-shaped balls from the pat, which are rolled away and attached to the bases of plants.

For maximum dung burial in spring, summer and autumn, farmers require a variety of species with overlapping periods of activity. In the cooler environments of the state of Victoria, the large French species (2.5 cms long) is matched with smaller (half this size), temperate-climate Spanish species. The former are slow to recover from the winter cold and produce only one or two generations of offspring from late spring until autumn. The latter, which multiply rapidly in early spring, produce two to five generations annually. The South African ball-rolling species, being a subtropical beetle, prefers the climate of northern and coastal New South Wales where it commonly works with the South African tunnelling species. In warmer climates, many species are active for longer periods of the year.

Dung beetles were initially introduced in the late 1960s with a view to controlling buffalo flies by removing the dung within a day or two and so preventing flies from breeding. However, other benefits have become evident. Once the beetle larvae have finished pupation, the residue is a first-rate source of fertiliser. The tunnels abandoned by the beetles provide excellent aeration and water channels for root systems. In addition, when the new generation of beetles has

left the nest the abandoned burrows are an attractive habitat for soil-enriching earthworms. The digested dung in these burrows is an excellent food supply for the earthworms, which decompose it further to provide essential soil nutrients. If it were not for the dung beetle, chemical fertiliser and dung would be washed by rain into streams and rivers before it could be absorbed into the hard earth, polluting water courses and causing blooms of blue-green algae. Without the beetles to dispose of the dung, cow pats would litter pastures making grass inedible to cattle and depriving the soil of sunlight. Australia's 30 million cattle each produce 10-12 cow pats a day. This amounts to 1.7 billion tonnes a year, enough to smother about 110,000 sq km of pasture, half the area of Victoria.

Dung beetles have become an integral part of the successful management of dairy farms in Australia over the past few decades. A number of species are available from the CSIRO or through a small number of private breeders, most of whom were entomologists with the CSIRO's dung beetle unit who have taken their specialised knowledge of the insect and opened small businesses in direct competition with their former employer.

Glossary

1. dung: the droppings or excreta of animals

2. cow pats: droppings of cows

Questions 9-13

Complete the table below.

Choose NO MORE THAN THREE WORDS OR A NUMBER from Reading Passage 1 for each answer.

Write your answers in boxes 9-13 on your answer sheet.

Species	Size	Preferred climate	Complementary species	Start of active period	Number of generations per year
French	2.5 cm	Cool	Spanish	Late spring	1-2
Spanish	1.25 cm	**9 ……**		**10 …..**	**11 ……**
South African ball roller		**12 …….**	**13 …….**		

BÀI TẬP 2

Read the following passage about nocturnal animals.

Nocturnality is an animal behaviour characterised by activity during the night and sleep during the day. The common adjective is "nocturnal", versus its opposite “diurnal”.

Nocturnal creatures generally have highly developed senses of hearing and smell, and specially adapted eyesight. Such traits can help animals such as the Helicoverpa zea moth to avoid predators. Some animals, such as cats and ferrets, have eyes that can adapt to both low-level and bright day levels of illumination. Others, such as bushbabies and some bats, can function only at night. Many nocturnal creatures, including most owls, have large eyes in comparison with their body size to compensate for the lower light levels at night. Being active at night is a form of niche differentiation, where a species' niche is partitioned not by the amount of resources but by time (i.e. temporal division of the ecological niche). For example, hawks and owls can hunt the same field or meadow for the same rodents without conflict because hawks are diurnal and owls are nocturnal.

Fill the gaps in the summary using words from the list below it.

Nocturnal animals sleep during the daytime, whereas _____ animals are awake during the day and they _____ at night. Animals that are active at night tend to have _____ hearing and smell, and they may have _____ eyesight. Nocturnality allows animals to hunt for prey without having to _____ with predators that are active during daylight hours.

most	asleep	conflict	exceptional
sensitive	diurnal	sleep	compete

BÀI TẬP 3

Read the following passage about animal migration.

(Source: National Geographic)

Large migrations are some of nature's greatest spectacles. Wildebeest and zebra chase the rains through the Mara ecosystem every year, monarch butterflies trace a path from Mexico to Canada and back, and tiny songbirds fly nonstop for days at a time. And now scientists are starting to figure out how they know where to go, and when.

Some of these animals, they've found, have their migration pathways written into their genes. A songbird hatched in a laboratory, having seen nothing of the natural world, still attempts to begin migration at the right time of year and in the right cardinal direction.

But large mammals like bighorn sheep and moose are a different story. Wildlife researchers have long suspected that they require experience to migrate effectively, that their annual journeys are the result of learning from one another, not of genetic inheritance. A new study, published Thursday in the journal Science, suggests that those hunches may be correct—some animals must learn how to migrate.

The existence of collective information and knowledge, that can be passed from older animals to younger ones, is a form of "culture," researchers explain. And when animals learn as a result of social interaction and the transfer of this information, that's a type of cultural exchange—as opposed to genetic.

Fill each gap in the summary below with ONE word from the passage.

Scientists believe that _____ are responsible for some animal migrations. Songbirds, for example, do not need to learn when and in which _____ to migrate. On the other hand, bighorn sheep appear to _____ migration habits from the herd. They, and other mammals, seem to have a _____ that is passed from one generation to the next through interaction and exchange of _____.

BÀI TẬP 4

Read the following passage about compound words and hyphens.

A study of more than 10,000 compound words has found that four basic rules, regarding when to use a hyphen, will work 75 per cent of the time.

If the compound word is a verb (like to blow-dry), or an adjective (like world-famous), it probably needs a hyphen. For nouns with two syllables, like break-up and set-to, the rule is easy: use a hyphen only when the second word has two letters. If the second part of the word has more than two letters, it should be spelled as a single word, like coastline or bedroom. This explains why hotdog is not hyphenated. Finally, if the noun has three or more syllables, it is two separate words. Examples here include bathing suit and washing machine.

Christina Sanchez-Stockhammer, who is a linguistics professor at Ludwig Maximilian University of Munich, produced the simple set of rules after examining thousands of English words. She worked alongside a programmer and a statistician to find the patterns in the English language. She said: “A whole range of factors can have an influence on how compound words are typically spelled. But on a general level, it all boils down to a few simple guidelines.” She has published exceptions to the rules, and additional guidelines for hyphens, in a book called ‘English Compounds and their Spelling’.

(Adapted from www.dailymail.co.uk/sciencetech)

Answer each question below with just ONE word.

1. How many different rules for the use of hyphens did the study identify?
2. Are these rules always correct?
3. Do compound adjectives usually need a hyphen?
4. Do we normally use a hyphen when a compound noun has more than two syllables?
5. Did the linguistics professor carry out this research alone?

BÀI TẬP 5

Read the following excerpt from a newspaper article about the effects of humans on wild animals.

Humans are driving mammals including deer, tigers and bears to hide under the cover of darkness, jeopardising the health of the creatures that are only supposed to be active by day, new research his found. The presence of people can instil strong feelings of fear in animals and as human activities now cover 75 per cent of the land, we are becoming increasingly harder to avoid. Unable to escape during the day, mammals are forced to emerge during the night.

A team led by Kaitlyn Gaynor at the University of California, Berkeley arrived at this conclusion after analysing nearly 80 studies from six continents that monitored the activity of various mammals using GPS trackers and motion-activated cameras. The scientists used this data to assess the night time antics of the animals during periods of low and high human disturbance.

Such disturbances ranged from relatively harmless activities like hiking to overtly destructive ones like hunting, as well as larger scale problems like farming and road construction. Overall, the researchers concluded that from beavers to lions, there was an increase in nocturnal behaviour when humans were in the vicinity.

(Source: independent.co.uk)

Fill the gaps in the summary using words from the list below it.

A recent study has shown that many mammals are being forced to become _____ due to the presence of humans. Scientists reached these findings by _____ and analysing the movements of mammals in areas with different levels of _____. They showed that human activities, ranging from hiking to _____ to road building, made it more likely that mammals would _____ at night.

1. hunt
2. tracking
3. emerge
4. construction
5. nocturnal
6. agriculture
7. monitor
8. disturbance
9. active

BÀI TẬP 6

Collecting as a hobby

Many collectors collect to develop their social life, attending meetings of a group of collectors and exchanging information on items. This is a variant on joining a bridge club or gym, and similarly brings them into contact with like-minded people.

Another motive for collecting is the desire to find something special, or a particular example of a collected item, such as a rare early recording by a particular singer. Some may spend their whole lives in a hunt for this. Psychologically, this can give a purpose to a life that otherwise feels aimless.

Complete each sentence below with ONE word from the passage.

1. Collectors' clubs provide opportunities to share …….
2. Collectors' clubs offer ……. with people who have similar interests.
3. Collecting sometimes involves a life-long ……. for a special item.
4. Searching for something particular may prevent people from feeling their life is completely ……..

Which 'keywords' in the questions and in the passage helped you to get the answers?

BÀI TẬP 7

Fill the gaps in the text using the 10 words below.

emissions	experiment	cause
unequivocal	landmark	consequences
reductions	scenarios	projected
evidence		

A _____ report says scientists are 95% certain that humans are the "dominant _____" of global warming since the 1950s. The report by the UN's climate panel details the physical _____ behind climate change. On the ground, in the air, in the oceans, global warming is "_____", it explained. The panel warns that continued _____ of greenhouse gases will cause further warming and changes in all aspects of the climate system. To contain these changes will require "substantial and sustained _____ of greenhouse gas emissions".

After a week of intense negotiations in the Swedish capital, the summary for policymakers on the physical science of global warming has finally been released. For the future, the report states that warming is _____ to continue under all _____. Prof Sir Brian Hoskins, from Imperial College London, told BBC News: "We are performing a very dangerous _____ with our planet, and I don't want my grandchildren to suffer the _____."

Text adapted from BBC website

BÀI TẬP 8

Read the following passage and complete the exercise below it.

The Major Oak is a large English oak tree in Sherwood Forest, Nottinghamshire. According to local folklore, Robin Hood and his Merry Men used the Major Oak as their hideout. The size of the tree and its mythical status have led it to become a popular tourist attraction.

The Major Oak weighs an estimated 23 tons, has a girth of 10 metres, a canopy of 28 metres, and is about 800 to 1000 years old. In a 2002 survey, it was voted 'Britain's favourite tree', and in 2014 it was voted 'England's Tree of the Year' in a public poll by the Woodland Trust.

There are several theories concerning why the Major Oak became so huge and oddly shaped. One theory is that the Major Oak may be several trees that fused

together as saplings. An alternative explanation is that the tree may have been pollarded. Pollarding is a pruning system that can cause a tree's trunk and branches to grow large and thick. Due to their size and weight, the tree's massive limbs require the partial support of an elaborate system of scaffolding, which was first put in place during the Victorian era.

Interestingly, in 2002, someone attempted to illegally sell acorns from the Major Oak on an internet-based auction website.

Fill the gaps using words

weight	branches	den
myth	height	put in
put up	circumference	joined
were		

1. Legend has it that the Major Oak was Robin Hood's _____.
2. The _____ of the tree's trunk is 10 metres.
3. The tree may actually be more than one tree that _____ together.
4. Some of the tree's _____ have to be held up by props.
5. Acorns from the oak were once _____ for auction on the Internet.

BÀI TẬP 9

Read the passage and complete the summary using words from the box below it.

NB You will not need to use all of the words.

Bilinguals and Personality

Many people believe that bilinguals have two different personalities, one for each of the languages they speak, and that switching between languages makes bilinguals act differently. Although this may seem unbelievable to some, research actually supports this idea.

According to various studies, bilinguals who are also bicultural and are actively involved in both of their cultures, interpret situations differently depending on which language they speak in. Although everyone, monolinguals and bilinguals alike, is able to change the way they feel and interpret events (a phenomenon known as frame-shifting), biculturals do this without realising when switching between languages.

The changes are not only linguistic. As an English-Spanish bicultural myself I do find I act differently depending on which culture I'm immersed in at the time. I'm often aware of the fact that when I speak to other Spanish speakers my voice is slightly louder and I gesticulate more than when I talk to English speakers. Could we then say that bilinguals have two different personalities?

(Source: bilingualbicultural.com)

Summary

There is some _____ to show that people who are bilingual exhibit a different _____ depending on which language they are speaking. Some bilinguals also have two _____ cultural identities, meaning that they are able to _____ their behaviour effortlessly according to their cultural _____. This may involve changes in _____ of speech or in the use of _____ language.

noise	evidence	volume
persona	characteristics	body
distinct	surroundings	facts
adapt		

BÀI TẬP 10

The advantages and disadvantages of homework

There's a long-running debate on the benefits of homework. The purpose of homework is to bridge the gap between children's learning at school and at home, but just how relevant is it to the modern generation? We cover the advantages and disadvantages of homework below.

Advantages

Children develop time management and study skills

Homework sets children up to manage their time and plan out study schedules, which are very useful skills to have when they enter senior high school years, tertiary study and eventually the workforce. Completing homework early in the schooling years ensures that it becomes a habit — not an inconvenience.

Students can engage with their studies

Even with the whole day spent at school, allocated class time is not always sufficient when it comes to engaging students with their school work. Setting homework allows students to revise content learnt during the day with a fresh set of eyes and a clear head, away from their friends and other schoolyard distractions. This also provides parents with an opportunity to get involved in their child's school work, providing assistance and additional insight when needed.

Teachers can keep track of progress

Homework allows teachers to track students' progress, meaning that they can spot when a child is struggling with content or falling behind the rest of the

cohort. Submitting homework also provides a good lesson in responsibility and diligence, often with disciplinary consequences if homework is not returned or completed to the required standard. Homework can also be a good talking point during parent–teacher interviews.

Disadvantages

Homework eats up free time

This is one of the most common arguments against homework — it eats up the valuable time kids have to spend with their family, attend extracurricular activities and catch up with friends. For older children, schoolwork may also compete with part-time and casual work. In Years 11 and 12, it can be difficult to manage homework with independent study.

Excess homework causes children to feel 'burnt out'

After a busy day at school and extracurricular activities thrown into the mix, sitting down to complete homework can seem like a monumental task, causing some children to feel burnt out well before they reach the tough final years of school. In some cases, homework may even be assigned over term breaks or the summer holidays. This causes severe stress for some children, leading to issues such as sleep deprivation.

Homework is rarely valuable

Although teachers work hard to set homework tasks that will engage your child, it is sometimes difficult to see the value in the assignments your child brings home. It can also be tempting to help your child with their homework (sometimes a little too enthusiastically), meaning that the benefits of homework as a learning tool are lost entirely. The volume of homework may also mean

that your child is not able to dedicate as much time to each task as would be ideal.

Further information

Most schools have a homework policy that dictates the type of homework tasks given to students and their frequency. State governments also publish guidelines on their respective department of education websites:

- NSW: Homework policy
- QLD: Homework policy
- VIC: Primary school homework
- VIC: Secondary school homework

If you are worried that your child's homework schedule is taking its toll on their wellbeing (or that they're not receiving enough homework), it is best to chat to their teacher or year-level coordinator.

Here are some sentences using vocabulary from the passage. Can you fill the gaps?

1. Homework bridges a _____ between learning at school and at home.
2. How relevant is homework to the _____ generation?
3. Homework helps children to develop time _____ skills.
4. Students can revise what they have learnt without any _____.
5. Teachers can _____ the progress that their students are making.
6. However, homework eats up* students' _____ _____.
7. Students may also feel burnt _____*.
8. The demands of homework can lead to stress and sleep _____.
9. Some parents help their children too _____.
10. A busy homework schedule may take its _____ on children's wellbeing.

*These expressions are a little informal.

BÀI TẬP 11

A Work of Genius

By the beginning of the 15th century, after a hundred years of construction, Florence Cathedral was still missing its dome. The building required an octagonal dome which would be higher and wider than any that had ever been built, with no external buttresses to keep it from spreading and falling under its own weight.

The building of such a masonry dome posed many technical problems. Filippo Brunelleschi, who is now seen as a key figure in architecture and perhaps the first modern engineer, looked to the great dome of the Pantheon in Rome for solutions. The dome of the Pantheon is a single shell of concrete, the formula for which had long since been forgotten. Soil filled with silver coins had held the Pantheon dome aloft while its concrete set. This could not be the solution in the case of the Florence Cathedral dome, due to its size. Another possible solution, the use of scaffolding, was also impractical because there was not enough timber in the whole of the region of Tuscany.

Brunelleschi would have to build the dome out of brick, due to its light weight compared to stone and being easier to form, and with nothing under it during construction. His eventual success can be attributed, in no small degree, to his technical and mathematical genius. Brunelleschi used more than four million bricks to create what is still the largest masonry dome in the world.

Fill each gap in the summary with a letter A - I.

Due to the **(1)**_____ and **(2)**_____ of the required structure, the construction of a dome for the cathedral in Florence had challenged architects for many years. A method employed by the Romans, using **(3)**_____ to support a dome while it was being built, was not suitable, and an insufficient supply of **(4)**_____ meant that scaffolding could not be used either. The architect Brunelleschi finally **(5)**_____ in building the largest **(6)**_____ dome in the world.

A brick	**B** width	**C** materials
D earth	**E** wood	**F** succeeded
G concrete	**H** height	**I** achieved

BÀI TẬP 12

Part of the passage about 'gifted children'

A very close positive relationship was found when children's IQ scores were compared with their home educational provision (Freeman, 2010). The higher the children's IQ scores, especially over IQ 130, the better the quality of their educational backup, measured in terms of reported verbal interactions with parents, number of books and activities in their home etc.

To be at their most effective in their self-regulation, all children can be helped to identify their own ways of learning - metacognition - which will include strategies of planning, monitoring, evaluation, and choice of what to learn. Emotional awareness is also part of metacognition, so children should be helped to be aware of their feelings around the area to be learned, feelings of curiosity or confidence, for example.

Fill the gaps below with no more than TWO words from the passage.

1. One study found a strong connection between children's IQ and the availability of ……. and ……. at home.
2. Metacognition involves children understanding their own learning strategies, as well as developing ……..

BÀI TẬP 13

Read the following text about universities.

Religion was central to the curriculum of early European universities. However, its role became less significant during the 19th century, and by the end of the 1800s, the German university model, based on more liberal values, had spread around the world. Universities concentrated on science in the 19th and 20th centuries, and became increasingly accessible to the masses. In Britain, the move from industrial revolution to modernity saw the arrival of new civic universities with an emphasis on science and engineering.

The funding and organisation of universities vary widely between different countries around the world. In some countries, universities are predominantly funded by the state, while in others, funding may come from donors or from fees which students attending the university must pay.

Complete the sentences below with NO MORE THAN THREE WORDS from the passage.

1. The German university model, which became popular in the 19th century, promoted _____.
2. Over the last 200 years, a university education has become _____ the general public.
3. Depending on the country, universities may be funded by the state, by donors, or by fee-paying _____.

BÀI TẬP 14

Fill the gaps in the passage with the following words

commute	mobility	instant	
efficient	remote	smartphones	locations

Telecommuting, _____ work, or telework is a work arrangement in which employees do not _____ to a central place of work. A person who telecommutes is known as a "telecommuter", "teleworker", and sometimes as a "home-sourced," or "work-at-home" employee. Many telecommuters work from home, while others, sometimes called "nomad workers", use mobile telecommunications technology to work from coffee shops or other _____.

Telework is facilitated by tools such as groupware, virtual private networks, conference calling and videoconferencing. It can be _____ and useful for companies since it allows workers to communicate over long distances, saving travel time and cost. Furthermore, with their improving technology and increasing popularity, _____ are becoming widely used in telework. They substantially increase the _____ of the worker and the degree of coordination with their organization. The technology of mobile phones allows _____ communication through text messages, camera photos, and video clips from anywhere and at any time.

BÀI TẬP 15

Fill the gaps with one of the following words

cutting	advances	track	
coming	empower	chief	developing

Pundits have long predicted that _____ in genetics will usher in a golden age of individually tailored therapies. But in fact it is much lower-tech wireless devices and internet-based health software that are precipitating the mass customisation of health care, and creating entirely new business models in the process.

The hope is that nimble new technologies, from smart-phones to health-monitoring devices, will _____ patients and doctors, and thus improve outcomes while _____ costs. The near ubiquity of mobile phones is the _____ reason to think this optimistic scenario may come true. Patients with smart-phones can certainly benefit from interactive “wellness” applications that track diet, exercise and vital signs.

Many companies are _____ up with “home health” devices embedded with wireless technology. Some are overtly clinical in nature: Medtronic, a devices giant, is _____ a bedside monitor that wirelessly tracks the blood sugar levels in diabetic children sleeping nearby. GE has come up with “body sensor networks”, tiny wireless devices that _____ the vital signs of those who wear them.

Full article: Apr 8th 2010, From The Economist

BÀI TẬP 16

Read the following text about pedestrian zones in cities.

A large number of European towns and cities have made part of their centres car-free since the early 1960s. These are often accompanied by car parks on the edge of the pedestrianised zone, and, in the larger cases, park and ride schemes. Central Copenhagen is one of the largest and oldest examples: the auto-free zone is centred on Stroget, a pedestrian shopping street, which is in fact not a single street but a series of interconnected avenues which create a very large auto-free zone, although it is crossed in places by streets with vehicular traffic. Most of these zones allow delivery trucks to service the businesses located there during the early morning, and street-cleaning vehicles will usually go through these streets after most shops have closed for the night. In North America, where a more commonly used term is pedestrian mall, such areas are still in their infancy. Few cities have pedestrian zones, but some have pedestrianised single streets. Many pedestrian streets are surfaced with cobblestones, or pavement bricks, which discourage any kind of wheeled traffic, including wheelchairs. They are rarely completely free of motor vehicles.

Fill the gaps below with NO MORE THAN 3 WORDS from the text.

1. In some cases, people are encouraged to park _____ of the town or city centre.
2. The only vehicles permitted in most pedestrian zones are those used for _____ or _____ cleaning.
3. Certain types of road surface can be used to _____ traffic.

BÀI TẬP 17

The Wright brothers, Orville and Wilbur, were two American brothers, inventors, and aviation pioneers who were credited with inventing and building the world's first successful airplane and making the first controlled, powered and sustained heavier-than-air human flight, on December 17, 1903. In the two years afterward, the brothers developed their flying machine into the first practical fixed-wing aircraft.

The brothers' fundamental breakthrough was their invention of three-axis control, which enabled the pilot to steer the aircraft effectively and to maintain its equilibrium. This method became standard and remains standard on fixed-wing aircraft of all kinds. From the beginning of their aeronautical work, the Wright brothers focused on developing a reliable method of pilot control as the key to solving "the flying problem". This approach differed significantly from other experimenters of the time who put more emphasis on developing powerful engines. Using a small homebuilt wind tunnel, the Wrights also collected more accurate data than anyone had before, enabling them to design and build wings and propellers that were more efficient than rival models.

They gained the mechanical skills essential for their success by working for years in their shop with printing presses, bicycles, motors, and other machinery. Their work with bicycles in particular influenced their belief that an unstable vehicle like a flying machine could be controlled and balanced with practice.

Fill each gap in the summary below with a maximum of 2 words.

In 1903, the Wright brothers completed development of the first airplane that was capable of sustaining controlled _____. The key to their success was a system that gave the pilot the means to control and _____ the airplane. This set them apart from other inventors who had focused on building _____. The brothers had previous experience with a wide variety of _____, but it was their work with _____ that had the greatest influence on their ideas.

BÀI TẬP 18

Read the following passage about the discovery of penicillin.

The discovery of penicillin is attributed to Scottish scientist Alexander Fleming. Fleming recounted that the date of his breakthrough was on the morning of September 28, 1928. It was a lucky accident: in his laboratory in the basement of St. Mary's Hospital in London, Fleming noticed a petri dish containing Staphylococcus culture that he had mistakenly left open. The culture had become contaminated by blue-green mould, and there was a halo of inhibited bacterial growth around the mould. Fleming concluded that the mould was releasing a substance that was repressing the growth of the bacteria. He grew a pure culture and discovered that it was a Penicillium mould, now known to be Penicillium notatum. Fleming coined the term "penicillin" to describe the filtrate of a broth culture of the Penicillium mould.

Fill the gaps in the summary below using words from the passage.

Alexander Fleming discovered penicillin by _____ on September 28, 1928. He found that the growth of bacteria on a petri dish was _____ by a blue-green mould that had contaminated the culture. He realised that the mould was producing a substance that was responsible for _____ bacterial growth.

BÀI TẬP 19

Read the following passage about creative writing.

New research, prompted by the relatively high number of literary families, shows that there may be an inherited element to writing good fiction. Researchers from Yale in the US and Moscow State University in Russia launched the study to see whether there was a scientific reason why well-known writers have produced other writers.

The study analysed the creative writing of 511 children aged eight to 17 and 489 of their mothers and 326 fathers. All the participants wrote stories on particular themes. The stories were then scored and rated for originality and novelty, plot development and quality, and sophistication and creative use of prior knowledge. The researchers also carried out detailed intelligence tests and analysed how families functioned in the Russian households.

Taking into account intelligence and family background, the researchers then calculated the inherited and the environmental elements of creative writing. They found what they describe as a modest heritability element to creative writing.

Fill each gap in the summary below using a maximum of 2 words.

Creative writing ability may be _____ from parents, according to a new study. Researchers compared _____ written by children and their parents, looking at elements such as originality and use of _____. After conducting intelligence tests and allowing for _____, they concluded that there is a _____ link between genetics and creative writing.