

Teacher's Manual

Key English for Science:

Writing Skills

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Level 2

Unit 1 Resources for Research

Part 1

Comprehension Questions 1

1. Hirono wants to confirm the due date of the report, and how to do research for it.
2. One option is the use the resources at the school library.
3. Another option is to use the internet.

Dictation

Hirono asks Ben about (the) (due) (date) of the report and how to (do) (research) for it. Ben says that one option is to use (the) (resources) (at) (their) (school) (library). He tells her that another option is to use (the) (internet).

Part 2

1. It's for their Environmental Science class.
2. He recommends it because there are many copies of different journals there, and the librarians are extremely friendly and helpful.
3. Yes, he does. He recommends using a popular search engine, such as Google, Yahoo, and Bing.

Dictation

Hirono asks Ben about the date of the deadline of the report for their (Environmental) (Science) (class) and how to do research for it. Ben says that one option is to use the resources at their school library (because) (there) (are) (many) (copies) (of) (different) (journals) there, and the librarians are (friendly) (and) (helpful). He tells her that another option is to use the internet. He tells her about three of the most popular search engines, called (Google), (Yahoo), and (Bing).

Part 3

1. The due date is Friday afternoon at 1:00 pm.
2. She'll probably try to do a search specifically for papers which have been written about her topic in the past.

Dictation

Hirono asks Ben about the due date of the report for their Environmental Science class, and how to do research for it. It is essential that (the) (paper) (be) (submitted) (by) (Friday) (afternoon) at 1:00 pm. It can be sent by email to the professor, or it can be left in a box next

to her office door. Regarding research on the paper, Ben first recommends that she use the resources at their school library because there are many copies of different journals there, and the librarians are friendly and helpful. He also suggests using the internet and popular search engines such as Google, Yahoo, and Bing. Hirono appreciates his advice, and (she) (will) (probably) (try) (the) (third) (suggestion), (Bing).

Exercise (A)

- a) Mariko turned down the invitation for a party. (refuse)
- b) Junki took off his shoes quickly. (remove)
- c) The plane took off on time. (leave)
- d) Hiroshi turned in his research paper yesterday. (submit)
- e) Our flight has been put off indefinitely. (postpone)
- f) The building fell down because of the earthquake. (collapse)
- g) Let's do away with things we don't need. (discard)
- h) Look into the causes of the accident. (investigate)

Exercise (B)

1. It is absolutely essential that men and women (have/should have) an equal opportunity at work.
2. It was important that he (take / should take) a rest for his health.
3. I strongly recommend that you (move) to another apartment.
4. I suggest (using) various internet search engines.
5. Our advice is that the university (invest / should invest) heavily in international education exchange.
6. He insisted that his children (not leave) home before turning twenty.

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary. Sample:

While conducting research, I would prefer to use the internet. First, I feel that using the internet is much quicker and more convenient. For example, on the internet I can find dozens of articles related to my topic within a few seconds, but it takes much longer in the library. Second, I feel that the latest research will probably be available on the internet, but I'm not so sure about the library. It takes time for the staff of a library to collect and categorize various texts. For these reasons, I would prefer to use the internet to help me with my research.

Unit 2 My ideal house

Part 1

Comprehension Questions

1. They have to submit their assignments for their technical drawing class.
2. He says that the picture of a house in a magazine seems like his ideal house.
3. He says that it has stucco siding.

Dictation

Benjamin and Lisa have not handed in their assignments for their (technical) (drawing) (class) yet. Ben tells Lisa that the picture of a house in a magazine seems like his ideal house. He likes it because (it's) (on) (a) (partially) (wooded) (acre) (of) (land). He says that he likes (stucco) (siding).

Part 2

1. He likes a living room with natural light from a skylight flooding into it every day.
2. He likes a large country kitchen with sliding glass doors.
3. She says that it seems like it would be a nice house.

Dictation

Benjamin and Lisa have not submitted their assignments for their technical drawing class yet. Lisa shows Ben the picture of a house in a magazine, and he tells her that it's like his ideal house. He likes it because it's on a partially wooded acre of land. He says that he likes stucco siding. He'd like to have (natural) (light) (from) (a) (skylight) (flooding) (into) (the) (living) (room) every day. He also likes (a) (large) (country) (kitchen). Lisa tells him that (it) (seems) (like) (it) (would) (be) (a) (nice) (house).

Part 3

1. No, he wants sliding glass doors.
2. He wants to see a pool and a barn when he's on the deck.

Dictation

Benjamin and Lisa have not submitted their assignments for their technical drawing class yet. Lisa shows Ben the picture of a house in a magazine, and he tells her that it's like his ideal house. He likes it because it's on a partially wooded acre of land. He says that he likes stucco siding. He'd like to have natural light from a skylight flooding into the living room every day because he thinks it would be great. He also likes a large country kitchen (with) (sliding)

(glass)(doors), which lead onto a deck (overlooking)(a)(pool)(and)(barn). Lisa tells him that it seems like it would be a nice house.

Exercise (A)

1. Cats’ hair is shiny, silky, and (sleek) to the touch, but kitties have downy and (fluffy) hair.
2. Fish looks scaly, and are too slick and (slippery) to catch, so they slide away easily.
3. Glass has a smooth and (transparent) surface.
4. Compared to rubber which is a flexible, (resilient), and porous material, iron is hard but can be (malleable) and tempered. In addition, it can become (rusty) as a result of exposure to water.
5. Water in a glass is completely (clear) and transparent.
6. The tape on the desk is so (sticky) and adhesive that it cannot be detached.
7. Thunder is the noisy and (rumbling) sound caused by lightning.
8. An aurora is a (bright) and natural light display in the sky, particularly in the high latitude regions.

Exercise (B)

adjective + to	accustomed identical similar beneficial indifferent superior	attached polite thankful cruel limited	connected related used exposed oppose	faithful respectful addicted immune relevant	grateful allergic inferior sensitive
adjective + with	angry connected furious satisfied acquainted content	annoyed crowded identical sympathetic fed up patient	bored disappointed lucky thrilled furnished troubles	busy dissatisfied pleased wrong impressed	careful familia popular associated involved
adjective + of	afraid envious jealous sick aware innocent	ashamed frightened proud sure characteristic suspicious	capable full rid tired conscious terrified	careful guilty scared unaware fond typical	certain hopeful short accused incapable
adjective + for	eager suitable punished	famous thankful qualified	late appreciated responsible	ready eligible	sorry notorious
adjective + on	keen	based	dependent		

adjective + about	annoyed delighted nervous worried upset	careful enthusiastic sad wrong	certain excited serious anxious	crazy furious sorry doubtful	curious guilty sure pessimistic
adjective + from	different	derived	safe		
adjective + in	excellent	interested	experienced	rich	successful
adjective + at	amazed clever brilliant	angry delighted slow	annoyed excellent terrible	astonished good	bad lucky

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary. Sample:

If I could design my ideal house, I'd have a large house with gorgeous windows. First, I'd need a special sort of imported glass for the windows. The glass I have in mind is especially clear, and smooth to the touch. Next, it should have a driveway that is never slippery when it gets icy outside. Finally, I'd make sure that the roof was very strong, to guard against excessive storm damage. When I was young, my house was damaged by a large storm, so this would really put my mind at ease. If I could design a house like this, I'm sure it would be something I could live in very comfortably.

Unit 3 The subway

Part 1

Comprehension Questions

1. They are discussing the subway.
2. He says that a person made it onto the train just in time.
3. She says that in Japan, people also tend to board the train even after they've heard that the door will close.

Dictation

Hirofumi and Lisa are discussing (the)(subway). Hirofumi states that a person made it onto the train (just)(in)(time). Lisa replies that people are the same everywhere. For example, in Japan, people also (tend)(to)(board) the train even after they've heard that the door will close.

Part 2

1. She wonders if platform screen doors are able to stop suicide and homicide attempts.
2. He says that they can.
3. He says that it remains dangerous due to the high voltage current.

Dictation

Hirofumi and Lisa are having a conversation about the subway. According to Hirofumi, someone made it onto the train just in time. Lisa says that people are the same everywhere. She adds that in Japan, people also board the train after they learn that the door will soon close. Lisa wonders if (platform) (screen) (doors) are able to stop (suicide) (and) (homicide) (attempts) at the platform, and Hirofumi says that they can. However, he says that it remains dangerous (due) (to) (the) (high) (voltage) (current). They discuss the New York City subway system, including the third rail.

Part 3

1. She says that it's very dangerous.
2. He says that each train car is lifted by a heavy crane in and out of the subway tunnel.

Dictation

Hirofumi and Lisa are talking about the subway. Hirofumi says that someone made it onto the

train just in time. Lisa responds by saying that people are the same everywhere. For example, in Japan, people also board the train even after they've heard the announcement that the door will close. Lisa asks if platform screen doors can prevent suicide and homicide attempts at the platform, and Hirofumi replies that they can. However, he says that it's still dangerous because of the high voltage current. They talk about the New York City subway system, and (the) (third) (rail). Lisa reveals that (it's) (very) (dangerous). Hirofumi discusses how a subway tunnel is built. Finally, he explains how trains are put on (underground) (railroad) (tracks). He says that each train car is (lifted) (by) (a) (heavy) (crane) in and out of the subway tunnel.

Exercise (A)

A subway system is (an) essential means of transportation in modern city life. (A) subway system can carry a large number of people while following a busy and precise timetable because (it) is primarily located in underground tunnels and segregated from (other) traffic. (The) subway system in New York City is called (a) rapid transit system, and has a very dynamic environment. For example, (the) subway is in operation 24 hours a day. As a result, (its) lines sometimes need to be shut down for temporary repairs and general maintenance. (Another) characteristic example is that users of the subway system in New York may be treated to performances by professional jazz musicians on the platforms, an aspect of city life (which) many people find appealing. Many of (the) performers are officially supported and (their) performances are often quite impressive. If you have (the) opportunity, catch (a) performance if you can. There is no question that (the) subway in New York City is tremendously important to many people, and (the) city as (a) whole.

Exercise (B)

noun + to	access attitude reaction addiction response	addition cruelty reference contribution	allusion damage reply dedication	alternative devotion solution relevance	answer exception threat resistance
noun + with	connection link trouble	contrast matter association	date meeting involvement	dealing quarrel sympathy	difficulty relationship
noun + of	awareness grasp opinion advantage	characteristic command process habit	difference intention smell taste	disadvantage lack use victim	fear notice result
noun + for	argument (against) desire regret thirst reputation	bid need respect admiration search	case (against) preference room demand	credit reason sympathy hope	cure recipe talent responsibility
noun + in	decrease pleasure reduction	difficulty rise	experience belief	expert delay	interest increase

noun + on	debate authority	decision ban	effect influence	expert tax	report
noun + about	agreement	decision	information	opinion	debate
n o u n + between	bond	comparison	connection	difference	
noun + from	absence	protection	removal	separtaion	

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary. Sample:

Tablet computers have become an important part of daily life for many people. First, they come in various sizes and shapes. This is important, because some people prefer to keep them in a jacket pocket, while others are content to put them in a backpack. Thus, different sizes are necessary. They are also made by various manufacturers. People can therefore choose from a wide variety of styles. Finally, tablet computers are able to access various wireless networks. Depending on the location, one might opt for a specific model because it can maintain a better internet connection. With the variety of tablet computers now available, it's a wonder that anyone can ever make a decision about which one to buy.

Unit 4 Digital Privacy

Part 1

Comprehension Questions

1. David and Lisa are talking about digital privacy.
2. No, she missed it.
3. He thinks that it was an interesting lecture, and Lisa should have been there.

Dictation

David and Lisa are talking about (digital)(privacy). Lisa tells David that (she) (missed) Prof. Kraft's lecture about it. She wonders how it was. David informs Lisa that it was (an) (interesting) (lecture), and Lisa should have been there.

Part 2

1. She asks him how the lecture was.
2. The main idea of the lecture was to warn students about government and corporate surveillance.
3. Lisa tells David that our every move can be tracked digitally.

Dictation

David and Lisa are chatting about the topic of digital privacy. Lisa says that she missed Prof. Kraft's lecture about it. She asks him (how)(it)(was). David responds that Lisa should have been there, because it was interesting. He says that the main idea of the lecture was (to) (warn) (students) about government and corporate (surveillance). Lisa tells David that our every move can be tracked digitally.

Part 3

1. She says that it's easy for people to see our activity when we use search engines, online shops, or online social networks.
2. She says that she's not comfortable with the fact that companies use this data to place ads on various websites which are specifically tailored to our wants and needs.

Dictation

David and Lisa are discussing digital privacy. In response to a question from David, Lisa reveals that she missed Prof. Kraft's lecture about it. She asks how it was. David replies that it was interesting and that Lisa should have been there. He says that the point of the lecture was to warn about government and corporate surveillance. She says that our every move can be tracked digitally. David wants Lisa to be more specific, so she talks about how it's easy for people to see our activity when we use (search) (engines), online shops, or online (social) (networks). Lisa also reveals that she's not comfortable with the fact that companies use this data (to) (place) (ads) (on) (various) (websites) which are specifically (tailored) (to) (our) (wants) (and) (needs).

Exercise (A)

1. (The fact that) electromagnetic waves can travel in a vacuum enables us to distinguish them from mechanical waves.
2. (Despite the fact that) it is widely believed that climate change represents a significant threat to human welfare, not enough is being done to seek an effective solution.
3. The iceberg wasn't the only thing (that) took down the ship.
4. The country launched the first in a new generation of space rockets, (which) drew more than 20,000 visitors.
5. (What) the researcher needs to do is to evaluate the risks and benefits of the new technology.
6. They have a non-profit scientific organization (whose) purpose is to research communication systems (which) may be insecure.
7. The lab test identified multiple bacteria, (many of which) can cause fatal foodborne diseases.
8. In this experiment, the treatment group consists of new patients, (all of whom) receive the new treatment, while the control group consists of patients from the past who did not receive the new treatment.

Exercise (B)

1. The police (are) both the forensic science provider and customer.
2. Statistics (is) the science related to the collection, analysis, interpretation and presentation of data.
3. (A) number of students participated in volunteer work at the disaster areas last summer.
4. Mangrove forests are (one of the) world's most threatened tropical ecosystems.
5. Students should learn the (admissions) requirements for graduate degree programs before sending in an application.

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary. Sample:

In my opinion, it's very important to be careful when sharing information online. It seems to me that every day, more and more threats become apparent. For example, hackers learn new

tricks, and data security companies must scramble to come up with new defensive strategies to use against their attacks. In addition, online merchants often collect customer information and then sell it to other companies. I believe that this is immoral, because private information should be kept private. In the future, perhaps society will finally take a stronger stand against those who want to compromise our internet security.

Unit 5 Using a telescope

Part 1

Comprehension Questions

1. He asks her what the case is holding.
2. She says that it's her telescope, and shows it to him.
3. She says that it's "OTA".

Dictation

Prof. Coleman asks Akane (what)(the)(case)(is)(holding). Akane tells him that (it's) (her)(telescope), and then shows it to him. Prof. Coleman tells Akane that the telescope is impressive. Prof. Coleman also learns from Akane that (the) (main) (tube) (of) (the) (telescope) (is) (called) (the) (OTA), which means "optical tube assembly".

Part 2

1. Telescopes can be divided into two main types, reflectors and refractors.
2. Mirrors are used in reflectors, and occasionally they need to be collimated. An objective lens is used in refractors to form an image.
3. He wants to see how the telescope is set up.

Dictation

Prof. Coleman asks Akane what's inside the case. Akane says that it's her telescope. Then, she shows it to him. Prof. Coleman is impressed. Akane also informs him that the main tube of the scope is the OTA, which means "optical tube assembly". Prof. Coleman reveals that he wants to learn more. Akane says that telescopes can be divided into two main types, (reflectors) (and) (refractors). Mirrors are used in reflectors, and occasionally (they) (need) (to) (be) (collimated). An objective lens is used in refractors (to) (form) (an) (image). Prof. Coleman requests to see how Akane sets the telescope up.

Part 3

1. She sets up the tripod.
2. The last step is to put in the eyepiece.

Dictation

Prof. Coleman asks Akane what she has in the case. Akane responds that it's her telescope,

and shows it to him. He remarks that the telescope is impressive. Akane tells Prof. Coleman that the main tube of the telescope is called the OTA, which means "optical tube assembly". Prof. Coleman responds that he'd like to learn more about telescopes. Akane tells him there are two main types of scopes, reflectors and refractors. Reflectors use mirrors, and sometimes need to be collimated. Refractors use a lens called an objective lens to form an image. Prof. Coleman asks to see how the telescope is set up. Akane sets up the scope for him. First, (she) (sets) (up) (the) (tripod). Second, she attaches the mount to the top of the tripod. Next, she lifts the scope out of the case and attaches it to the mount. Finally, (she) (says) (that) (the) (last) (step) (is) (to) (put) (in) (the) (eyepiece).

Exercise (A)

1. The major (problem discussed) in the meeting was the severe shortage of clean water for drinking and sanitation.
2. The goal of this research is to find a novel approach (to analyze) the result of polygraph.
3. (Having succeeded) in reducing air pollution and increasing energy efficiency, this type of renewable energy technology will be used in broader areas in the near future.
4. It is better to omit such items, which can be added afterward, and to spend (the money saved) on better materials to be used for permanent construction.
5. The diseased appearance in the trees (was caused) more by unfavorable soil conditions and unhealthy roots than by a fungus growth.
6. The operator advised him to make sure that the outlet he (has the computer plugged) into has power.

Exercise (B)

1. In the experiment, the speed of light did not change, (as happened) in the last experiment.
2. This year, shelters from across the country have strived to save the lives of more discarded animals (a than they have been) able to save in the past five years.
3. The researchers (c have been working) on software which supports the processes of data transcription and checking for a decade.
4. The study revealed that a certain type of cancer treatment (a has made) substantial progress.
5. Engineering (has been practiced) since the very beginnings of human existence.
6. This is the first time microbes (have been identified) living in the sediments of a subglacial Antarctic lake.

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary. Sample:

It's very difficult to quit smoking, because it's so addictive. First, nicotine is a very powerful chemical. Once people have it in their bodies, they want more of it. For this reason, people are willing to do without food or water for extended periods of time in order to satisfy their urge for nicotine. Another reason smoking is so addictive is that people see it as a crutch to

help deal with stress. For example, a person might have an argument with someone, and then go smoke a cigarette to relax. Thus, it becomes a strong habit. However, there are actually much better ways to relax. People who smoke should quit as soon as possible.

Unit 6 Pros and cons of animal testing

Part 1

Comprehension Questions

1. They are discussing animal testing.
2. Lisa says that her group pondered the matter from the viewpoint of animal rights.
3. They believe that animal testing is wrong.

Dictation

Prof. Gallagher is talking about (animal) (testing) (with) (his) (students). He states that it's a controversial issue, and it may be difficult for people to agree about it. Lisa says that her group pondered the matter (from) (the) (viewpoint) (of) (animal) (rights), and they believe that (animal) (testing) (is) (wrong).

Part 2

1. David says that his group attempted to analyze why animal testing is supported by some people.
2. He says that the first priority should be saving human lives.
3. Lisa feels that animal lives are equally important to human lives.

Dictation

Prof. Gallagher is having a talk about animal testing with his students. He tells the students that it's a controversial issue, and thus it's difficult for people to reach agreement about it. Lisa says that her group believes that animal testing is wrong, and they studied the issue from the perspective of animal rights. David says that his group attempted to analyze (why) (animal) (testing) (is) (supported) by some people. He states that the first priority should be (saving) (human) (lives). Lisa feels that (animal) (lives) (are) (equally) (important) (to) (human) (lives). She also says that animals can't provide informed consent, and this is one of the problems.

Part 3

1. Hirono says that animal testing in the United Kingdom is banned.
2. David says that in his opinion, it's dangerous to abolish testing completely.

Dictation

Prof. Gallagher is discussing animal testing with his students. He says that it's a controversial issue, and it may be hard for people to ever reach agreement about it. Lisa says that her group studied the matter from the standpoint of animal rights, and they believe that animal testing is wrong. David says that his group tried to analyze why some people support animal testing. He adds that saving human lives should be the first priority. Lisa feels that animal lives are as important as human lives. She also says that one of the problems is that animals can't provide informed consent. David remarks that many individuals are in favor of animal testing because they believe that it saves human lives. Hirono says that (animal) (testing) (for) (cosmetics) (is) (banned) in the United Kingdom. David says that in his opinion, (it's) (dangerous) (to) (abolish) (testing) (completely).

Exercise (A)

1. Sundials were (by far) the most common timekeeping devices in earlier times.
2. The company still sells (more computers than) any other company.
3. (The more massive the object), the more energy is required to cause a change in temperature.
4. The new manufacturing process sounds (all the better) for our environment because it can minimize styrene emissions and reduce waste.
5. Indoor air pollution can be (a even ten times worse than) outdoor air pollution.
6. Aerosols travel quickly, crossing the ocean and entering the atmosphere above the continent (in as little as) one week.

Exercise (B)

Answers will vary.

Exercise (C)

Answers will vary. Sample:

Some people believe that animal testing is necessary, while others think it should be banned. For example, people who are against animal testing feel that every life is precious, including that of an animal. In contrast, others feel that if an experiment can help to improve human health, it's worthwhile even if it costs the life of an animal. Another common difference of opinion is that some feel that the experiments performed on animals are especially cruel, while others feel that adequate precautions are usually taken in such experiments to make them more tolerable for the animals involved. Animal testing is sure to be a controversial topic for years to come.

Exercise (D)

Answers will vary.

Unit 7 The campaign against smoking

Part 1

Comprehension Questions

1. They are talking about smoking.
2. David begins by saying that he thinks smokers should follow the law and try to avoid exposing other people to their tobacco smoke.
3. She says that her father has been unable to quit smoking, although he has tried.

Dictation

A few students and Prof. Gallagher are talking after his lecture (about)(smoking). David begins by saying that he thinks smokers should follow the law and (try) (to) (avoid) (exposing) (other) (people) (to) (their) (tobacco) (smoke). Lisa agrees, and says that also feels that the government should aid people in quitting by creating websites with helpful advice. She says that (her) (father) (has) (been) (unable) (to) (quit) (smoking) although he has tried. Understand?

Part 2

1. David says that nicotine is the only reason people smoke a cigarette.
2. He says that smokers need to understand that they will eventually feel completely normal again.

Dictation

Professor Gallagher is having a discussion with a few students after his lecture about smoking. David starts by saying that in his opinion, smokers should follow the law and not try to expose other people to their tobacco smoke. Lisa agrees, and also feels that the government should help people to quit by creating websites with helpful advice. She says that her father tried to quit, but hasn't been able to thus far. David replies that (nicotine) (is) (the) (only) (reason) (people) (smoke) (a) (cigarette). Prof. Gallagher says that smokers need to understand that (they)(will)(eventually)(feel)(completely) (normal) (again). Akane asks if Lisa's father needs to be more patient, and Prof. Gallagher agrees. Akane ends the discussion by saying that nicotine is incredibly addictive.

Part 3

1. It is well known that smoking is very harmful to human health.
2. It's hard to believe that in this day and age, some young adults still take up the habit.

3. Passive smokers are in danger when they come into contact with nicotine, carbon monoxide, and tar as particulate matter.

Dictation

Answers will vary.

Exercise (A)

Answers will vary. Sample:

Prof. Gallagher says that smoking is harmful to human health, and lots of solid scientific data supports this. However, he says that many people still never attempt to quit. He finds it hard to believe that people still take up the habit in this day and age. He speculates that perhaps they are not afraid because they are not heavy smokers. However, he stresses that it's easy to get addicted to smoking. Finally, he discusses the dangers related to secondhand smoke. He says that concern about it has inspired a movement to establish smoke-free laws in workplaces and public places in many developed countries.

Exercise (B)

1. Not until the early 19th century (b did the plantations truly begin) to expand on a grand scale.
2. (Had they paid) attention to what their leader said, people in the group would not have faced the problems at that time.
3. Under no circumstances (can a customer claim) any compensation for damages after a proper notice of default within ten days of the discovery of the damage.
4. Not only (are the farmers providing) food but they're doing it without the use of pesticides and herbicides.
5. Scarcely (had he) left the room when he heard the news of the train accident.

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary. Sample:

Exercise (E)

Answers will vary. Sample:

Unit 8 Career Management

Dictation

So, I need to learn about marketing, and (recent) (advances) (in) (technology). I'm not sure, but I'll probably focus on the health care industry, medical industry, (medical) (device) (manufacturers), and (similar) (fields). Medicine is a growing field and has (good) (prospects) for the future. You know, we should make a list of all the companies we are interested in, (do) (some) (research) and (assess) them, and (figure) (out) which companies fit each of us. How can I (make) (it) (distinctive)? Then, you should make a list of your (strengths) (and) (weaknesses). So, you're saying that I should create (a) (portrait) of my abilities and experiences?

Comprehension Questions

1. She says that she needs to learn about marketing, and recent advances in technology.
2. She'll probably focus on the health care industry, medical industry, medical device manufacturers, and similar fields.
3. He says that medicine is a growing field and has good prospects for the future. Companies have recently diversified their investments to reduce their risk, so he thinks it's a good idea to focus on a variety of fields.
4. She says that she doesn't have much experience.
5. David's brother's advice:
 - You really need to take a good look at yourself. Write your personal history, including the schools you've attended and any experience you have.
 - You should make a list of your strengths and weaknesses, and figure out a way that your weaknesses can be utilized as strengths.
 - You should write about any talents or special skills you have.
 - You can make a list of the things you'd like to do in the future.
 - You should write your future resume.

Exercise (A)

Answers will vary. Sample:

Hirono and David are discussing their career plans. David says that he'd like to design a system which uses robots in a unique way. Hirono says that she'd like to do something connected to product development. They discuss the industries that Hirono would like to target, and then they talk about the way to write an excellent resume. David advises Hirono

based on advice he received from his older brother. Finally, he tells Hirono that she needs to write a future resume. He explains that this type of resume assumes that it's twenty years in the future, and she is in the middle of her career.

Exercise (B)

Answers will vary.

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary.

Unit 9 Resume and Cover Letter

Dictation

I wrote my personal history, made a list of strengths and weaknesses, and imagined a future in which (I've) (overcome) (my) (weaknesses).

These are documents that (potential) (employers) (will) (read) (and) (review) (very) (carefully), so it's extremely important that they are well formatted and free of distracting errors. You need to show that (you) (are) (an) (upbeat), (flexible) (person) (who) (will) (work) (hard) (and) (really) (benefit) (the) (company), rather than become a problem. Employers will check to confirm the information you provide, and if you lie, you can develop a reputation for dishonesty and (it) (can) (haunt) (you) (for) (the) (rest) (of) (your) (career)! (A) (new) (graduate) (without) (much) (work) (experience) may need to make the aim more explicit.

Next, (you) (should) (include) (a) (salutation), the body of the letter, the closing, your handwritten signature, and your typed name.

In the middle paragraphs, you should write about your experience and (qualifications), and explain why you feel (you) (are) (well) (suited) (to) (the) (position). As long as you don't give up, (you'll) (eventually) (be) (successful).

Comprehension Questions

1. She says that she's not bad.
2. He says that it's likely that they'll be put aside and not even considered.
3. He says that employers will check to confirm the information you provide, and if you lie, you can develop a reputation for dishonesty and it can haunt you for the rest of your career.
4. David's suggestions:
 - You should first list your own name and address, date, and then the name and address of the potential employer.
 - You should include a salutation, the body of the letter, the closing, your handwritten signature, and your typed name.
 - In the first paragraph, you can mention why you are writing, including how you found out about the job and which position you are applying for.
 - In the middle paragraphs, you should write about your experience and qualifications, and explain why you feel you are well suited to the position.
 - At the end of your letter, it's a good idea to summarize why you feel you should be hired, and thank the company for considering your application.

5. He says that she should not become discouraged if she does not get a job right away.

Exercise (A)

Answers will vary. Sample:

Hirono tells David that she's been making notes in preparation for writing a resume and cover letter. She talks about the various steps she has taken thus far, and then asks for further advice. David advises her that it is now time to create the resume and cover letter, and then discusses the importance of doing a good job on them. He then advises her that she needs to demonstrate that the company needs her, and tells her different ways she can do that. David explains the various steps in writing a cover letter, and then tells Hirono that she shouldn't be worried. He feels that the more experience you have, the easier it becomes.

Exercise (B)

Answers will vary.

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary.

Unit 10 Revising a Cover Letter

Dictation

I'm having trouble writing about myself. I don't know (how) (to) (promote) (myself) (effectively). The problem is that it's very general, so (it) (doesn't) (say) (much) (about) (you). If you write something like this, you're sharing something personal, and therefore it helps you to (stand) (out) (from) (the) (pack) (of) (applicants) (applying) (for) (the) (same) (job). As an employee at ABC Industries, I would work hard every day to (become) (a) (vital) (part) (of) (your) (team) (as) (well).

I saw an advertisement for a job that requires proficiency (in) (English) (speaking) (ability). If you're applying for a job that has a requirement that you feel you can't quite fulfill, (you) (should) (be) (honest), and then turn it into something positive that will impress the company. With a statement like this, you demonstrate to the company that you're very willing to tackle your deficiencies head on and (work) (hard) (to) (improve) (them).

Comprehension Questions

1. He's having trouble writing about himself.
2. He wrote, "My dream is to become an engineer."
3. She says that it doesn't say much about him. Anyone studying engineering could make the same statement.
4. She suggests that he could say, "During my freshman year at college, I was inspired by a professor whose work led to the development of a new type of artificial heart valve. I'd like to do the same type of groundbreaking and important work for your company as an engineer." She says that if you write something like this, you're sharing something personal, and therefore it helps you to stand out from the pack of applicants applying for the same job.
5. He plans to rewrite his cover letter, and sign up for some English classes.

Exercise (A)

Answers will vary. Sample:

Hirofumi has a conversation with Mrs. Katz. He tells her that he's been having trouble writing a cover letter. Hirofumi proceeds to give Mrs. Katz three examples of things he had written, and she gives him advice about them. For example, he tells her that early in the letter, he wrote, "My dream is to become an engineer." Mrs. Katz tells him that he's on the right track, but helps him to modify it. She suggests an alternate statement which is a bit more comprehensive. At the end of their talk, Hirofumi thanks Mrs. Katz for her help. He also says that he plans to rewrite his cover letter, and sign up for some English classes.

Exercise (B)

Answers will vary.

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary.

Exercise (E)

Answers will vary.

Exercise (F)

Answers will vary.

Unit 11 The Abstract

Dictation

An abstract is a paragraph (which) (summarizes) a research paper or lab report. Because the abstract is only a paragraph, (scientists) (can) (skim) many of them and then read the papers that are particularly interesting and relevant to their research. Actually, (the) (structure) (of) (an) (abstract) (may) (vary) depending on the type of article or the rules of the journal, so you must confirm the specific requirements each time you write a paper. You should describe your methodology, including information regarding how the study was performed (both) (technically) (and) (statistically). You should summarize (the) (most) (significant) (findings) (you) (obtained). There should be as few words as possible, but at the same time, (it) (should) (make) (a) (strong) (impression) on the reader. Near the beginning, (right) (after) (the) (title). Of course, the title and the abstract must (correspond) (to) (each) (other). Finally, (try) (to) (avoid) (using) (too) (many) (abbreviations) (or) (acronyms). Regarding the other words, I'll also capitalize the first letter of each word, (besides) (articles) (and) (prepositions).

Comprehension Questions

1. She says that an abstract is a paragraph which summarizes a research paper or lab report.
2. He may try to publish his work in an academic journal.
3. She says that the structure of an abstract may vary depending on the type of article or the rules of the journal, so you must confirm the specific requirements each time you write a paper.
4. She says that you need to conclude by concisely noting implications which might be drawn from the results of your work, and you may also provide an expansive view of the study.
5. Lisa's tips:
 - You should include important keywords that help to make the main idea of the paper clear.
 - The title and the abstract must correspond to each other.
 - Don't use a sentence as the title with a period at the end. It shouldn't be too long, or too short.
 - Try to avoid using too many abbreviations or acronyms.

Exercise (A)

Answers will vary. Sample:

Hirofumi and Lisa discuss the way to write an effective abstract. Hirofumi asks Lisa for help and she proceeds to give him advice. She says that academic papers are usually lengthy, and therefore a synopsis helps readers to understand the main points of the paper more easily and quickly. She then tells Hirofumi that there are four things that are usually included in an abstract. For example, information about the background of the study must be included. Another example is that the conclusion should be concise, noting implications that might be drawn from the results of the work. Finally, Lisa advises David about the form of an abstract, its length, and its title.

Exercise (B)

Answers will vary.

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary.

Exercise (E)

Answers will vary.

Unit 12 Structure of a research paper

Dictation

It starts with an (introduction), the body takes up a few paragraphs, and it ends with the (conclusion). It consists of six parts: introduction, (methods), results, (discussion), acknowledgments and (references). In the first part, the introduction, you should clearly and briefly state (why) (your) (investigation) (is) (unique) (and) (important). You need to cite and refer to other past studies relevant to the problem or (hypothesis) (you) (are) (posing).

We need to explain (why) (it) (was) (conducted), and why it's worth reading about? In this section, you should show how your investigation was carried out, (in) (chronological) (order). (Past) (tense) (would) (be) (appropriate) for this section. You need to (focus) (on) (your) (most) (significant) (findings). You need to summarize your results, review related studies, and (compare) (your) (result s) (with) (their) (findings). In addition, you should (discuss) (your) (ideas) (for) (possible) (future) (research). In the acknowledgments section, you need to thank all the people (who) (have) (assisted) (you) (with) (your) (research). I assume that in this section, I need to (cite) (all) (the) (published) (sources) that I used in my research.

Comprehension Questions

1. In the first part, the introduction, you should clearly and briefly state why your investigation is unique and important. You need to cite and refer to other past studies relevant to the problem or hypothesis you are posing.
2. In this section, you should show how your investigation was carried out, in chronological order. You should discuss the methods you used in considerable detail. You should identify and discuss the nature of the materials used in the experiment, such as their chemical and physical properties. If living things are involved in your experiment, you need to discuss their properties.
3. You should describe and carefully analyze the data with the use of graphs, figures and tables. You need to focus on your most significant findings.
4. You need to summarize your results, review related studies, and compare your results with their findings. You also need to explain why and how your work is unique, and discuss any possible objections to your work. In addition, you should discuss your ideas for possible future research.
5. In the acknowledgments section, you need to thank all the people who have assisted you with your research. If you've received financial support such as grants or fellowships from the government, or the private sector, you must mention it here.
6. You need to list all the literature cited in your paper.

Exercise (A)

Answers will vary. Sample:

Prof. Coleman and Akane discuss the way to write a research paper. Prof. Coleman tells her that scientific writing is different from regular essay writing. He then tells her about the structure of a scientific paper. He tells her that it consists of six parts: the introduction, methods section, results section, discussion section, acknowledgements section, and references section. He gives her details about each part to help her understand them. For example, he says that in the methods section, the methods used in the experiment should be discussed in considerable detail. The nature of the materials used in the experiment should be identified and discussed. Finally, he tells her that she can celebrate after she finishes writing her references.

Exercise (B)

Answers will vary.

Exercise (C)

Answers will vary.

Exercise (D)

Answers will vary.

Exercise (E)

Answers will vary.

Exercise (F)

Answers will vary.

Unit 13 The Poster

Dictation

I've been asked to help create a poster about (our) (recent) (scientific) (work) (for) (a) (conference). When you write something, think about how you can say the same thing (in) (a) (more) (compact) (way), and then rewrite it.

People may be a meter or more away from your poster as they skim it, so the font size needs to be (adequate) (to) (accommodate) (that). I definitely want my poster to be (easily) (readable) (and) (easy) (to) (follow).

The creator of a poster, on the other hand, has (a) (wide) (range) (of) (options). To save space, you can keep the opinions and interpretations to a bare minimum, and just (stick) (to) (the) (scientific) (facts). I'd like to add that if you leave some white space around the small sections of text, it will help your poster become (more) (pleasing) (to) (the) (eye).

Comprehension Questions

1. If your title is too long, it will be difficult for people to read quickly as they walk by, and it won't attract much attention. So, your title should be short, and interesting. If your title shows that you made a new scientific discovery, that could also attract conference attendees to your poster.
2. She says that one major difference is how they are read. People may be a meter or more away from your poster as they skim it, so the font size needs to be adequate to accommodate that.
3. The minimum size you should use on a poster should be approximately 24 point font for the body text, and 18 point for the captions. That will make it readable to the majority of people walking by.
4. She thinks a poster should be limited to 20 lines or less in each section, or it will become too dense with text and difficult to follow.
5. A poster should have simple but effective displays of data, and small sections of text that are easy to read.

Exercise (A)

Answers will vary. Sample:

Hirofumi and Lisa are discussing how to write a poster for use at a scientific conference. Hirofumi needs help, and Lisa is happy to give him some tips. She begins by discussing the correct way to write titles. She says that they should be short and interesting, so that they will attract attention. She proceeds to offer advice about various aspects of the poster. For example, she says that a large bold number may be used before the text about each step of the procedure of an experiment. She also says that white space can be used around small sections of text. Otherwise, the poster can appear chaotic and messy. Finally, Hirofumi thanks Lisa for her advice, and tells her that she's a great friend.

Exercise (B)

(Table) 1. Population ratio by age

YRS a	Population (ration) %
0-19	18.10
20-29	10.55
30-39	14.13
40-49	13.14
50-59	12.87
60-69	14.47
70-79	10.25
80-89	5.39
90-99	1.05
100-	0.04

Exercise (C)

Figure 2. Endangered Species Population Numbers.

This bar (chart) (shows) the number of individual animals left of five of the most (endangered) species on the planet. (Amur leopards) are the most critically endangered animals represented on the chart.

* Please check for updates on the IUCN website.

Exercise (D)

Figure 3. Monthly temperature variations: ABC City.

This (line) graph shows monthly temperature (variations) in ABC City. The month with the highest temperature is (July), and the month with the (lowest) is January.

Exercise (E)

Answers will vary. Sample:

- The title of the column chart should be added.
- Information describing the purpose of the y-axis should be added.
- Information describing the purpose of the x-axis should be added.
- The space between the columns can be made smaller than the width of the columns.

Exercise (F)

Answers will vary. Sample.

- The titles of the charts should be added.
- Column charts should be used instead of pie charts because it is easier to compare the parts of more than one chart this way. If column charts are used, the labeling will no longer be redundant.

(Source): ABC Demographics (2010) a YRS denotes years.