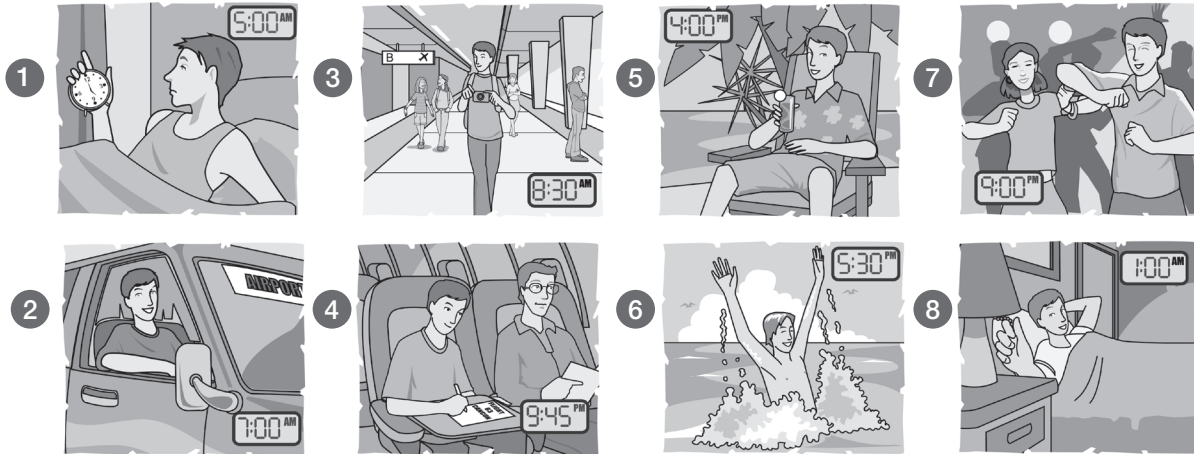


9

Natural Resources and Energy

A. Look at the pictures. Write sentences about what Callum will be doing tomorrow. Use the verbs in parentheses in the future progressive.



1. (get up) He will be getting up at 5 a.m.
2. (leave for) He will be leaving for the airport at 7 a.m.
3. (arrive at) He will be arriving at the airport at 8.30 a.m.
4. (fly to) He will be taking off at 9.45 a.m.
5. (relax) He will be drinking a cocktail at the beach at 4 p.m.
6. (swim) He will be swimming in the ocean at 5.30 p.m.
7. (dance) He will be dancing at a nightclub at 9 p.m.
8. (go to bed) He will be going to bed at 1 a.m.

B. What will you be doing at these times tomorrow? *Answers will vary.*

1. **5:45 A.M.** At five forty-five a.m., I will
be taking a shower.
2. **9:00 A.M.** _____
3. **1:15 P.M.** _____
4. **7:00 P.M.** _____

C. Change the sentences following the example.

- They will be wearing their uniforms for the ceremony.
 (negative) They won't be wearing their uniforms for the ceremony.
 (Will)? Will they be wearing their uniforms for the ceremony?
 (What / wear)? What will they be wearing for the ceremony?
- You will be studying for the exams on the weekend.
 (negative) You won't be studying for the exams on the weekend.
 (Will)? Will you be studying for the exams on the weekend?
 (What / do)? What will you be doing on the weekend?
- Rebecca will be getting the food from the deli near her house.
 (negative) She won't be getting the food from the deli near her house.
 (Will)? Will she be getting the food from the deli near her house?
 (Where)? What will Rebecca be doing near her house?



D. Make questions using the future perfect and answer them. You'll need to do some math.

- Marion works nine hours a day. (fifty days)
How many hours will Marion have worked in fifty days?
She will have worked for . . . 450 hours.
- You drink six cups of coffee every day. (seven days' time)
How many cups of coffee will I have drunk in seven days' time?
I'll have drunk forty-two cups (42) of coffee.
- The weavers make twelve rugs every day. (two weeks)
How many rugs will the weavers have made in two weeks?
They will have made seventy-two (72) rugs. (working six days a week)
- Mrs. Jones sells three cars a month. (a year)
How many cars will Mrs. Jones have sold in a year?
She will have sold thirty-six (36) cars.
- Derek writes two books a year. (ten years)
How many books will Derek have written in ten years?
He will have written twenty (20) books.

E. Rewrite the sentences using the passive form of the future perfect.

1. Scientists will have cloned human beings within the next few years.

Human beings

Human beings will have been cloned within the next few years.

2. By the time we get back we will have spent all our money.

All our money

All our money will have been spent by the time we get back.

3. We will have eaten all the cookies by the time we get there.

All the cookies

All the cookies will have been eaten by the time we get there.

4. The bakers will have made the cakes by then.

The cakes

The cakes will have been made by the bakers by then.

F. Use the information on the schedule to complete the sentences. Use the future perfect or the future progressive.

1. The campers will have arrived by 3:00 p.m.
2. They will be setting up tents at 3:15.
3. They will have gone fishing by 4:30.
4. At 6:00 p.m., they will be having supper.
5. The talent show will have started before 7:45.
6. The campers will be sitting around the bonfire at 9:00.
7. They will have told some scary stories by 9:30.
8. They will have gone to bed by 11:30.



Camping Trip

3:00 p.m. — arrive at campsite

3:15 p.m. — set up tents

4:00 p.m. — go fishing

6:00 p.m. — have supper

7:30 p.m. — start the talent show

9:00 p.m. — sit around the bonfire

9:15 p.m. — tell some scary stories

11:00 p.m. — go to bed

G. Read the text and complete the sentences.

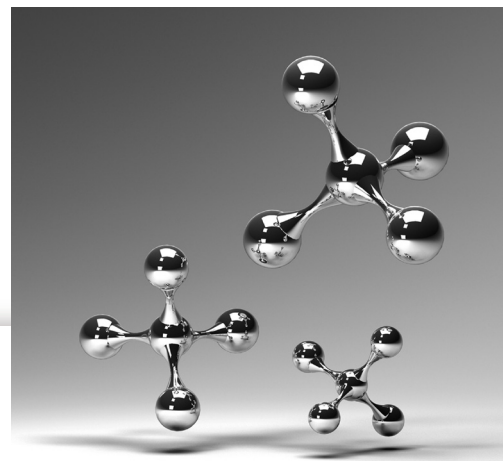
What is nanotechnology? It is technology done at a very small scale. One nanometer is a billionth of a meter. To give an example of how small it is, a sheet of paper is about 100,000 nanometers thick. Nanotechnology involves the ability to control individual atoms and molecules.

A lecture in 1959 by physicist Richard P. Feynman suggested how it would be possible to directly manipulate atoms for a variety of purposes. Today's scientists and engineers use nanotechnology to make materials with different properties, such as greater strength and lighter weight. They have already created surface materials that fight off dirt and scratches. Some fabrics have sunscreen built into them, which helps protect the wearer from the rays of the sun. Nanotubes that are fifty times stronger than steel have already been created.

It is not surprising that scientists think that we will soon be using more and more products made through nanotechnology. In the field of medicine, they are working on nanorobots. These will be introduced into the body, where the robots will be destroying cells with diseases and repairing cells that are damaged.

Other uses that scientists are envisioning are even more amazing. By the end of the century, they say a space ladder will have been built out of material incorporating nanotechnology. Objects such as satellites will be sent into space via an elevator in the ladder. Also, within the next hundred years, the damaged ozone layer will have been repaired by the use of nanotechnology.

Although we may not be able to predict the exact applications for nanotechnology, it is clear in the near future scientists will have created many new applications that will be changing our everyday lives.



1. Products that have been created with nanotechnology are *stronger and lighter* _____ .
2. In the future, nanorobots *will be introduced into the body* _____ .
3. By the end of the century, *Answers will vary.* _____ .

H. Writing Corner

Write a short paragraph about what new products scientists will have created in the next twenty years and how our lives will be changed.

Answers will vary.
