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Accidental Science

Discover Grammar

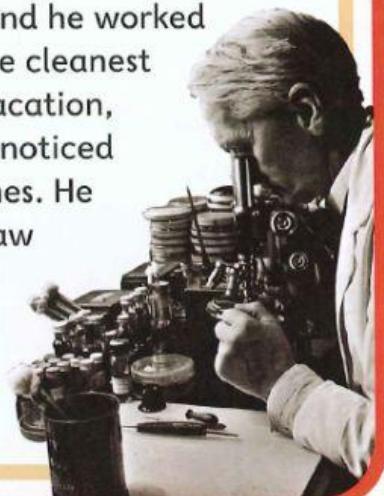
A Listen and read. 23

Great Discoveries

Some great things happen by accident. This is the story of penicillin.

Alexander Fleming was Scottish. He was a scientist in the early twentieth century. At that time, he was working hard on different ideas. He was studying bacteria because he knew it was dangerous for humans. He wanted to find a way to destroy it. So, he grew bacteria in small, round glass dishes called "petri dishes". He did experiments and tried to find an answer. But he wasn't successful. He didn't know what to do.

Like all scientists, Fleming wore a long, white lab coat and he worked in a laboratory full of equipment. But Fleming wasn't the cleanest scientist in the world. One day, when he left to go on vacation, he didn't clean his petri dishes. When he came back, he noticed some interesting, green mold growing on one of his dishes. He studied it through his powerful, silver microscope and saw that the mold was killing the bacteria. He was amazed. He knew he could use the mold to fight bacteria in humans. Years later, his ideas were successful. Today, penicillin saves millions of lives.



B Underline four sentences which have two adjectives to describe a noun.

C Write the missing words.

- 1 Fleming grew bacteria in _____, _____ glass dishes.
- 2 He wore a _____, _____ lab coat.
- 3 He saw some _____, _____ mold in one of the petri dishes.
- 4 He looked at the mold through a _____, _____ microscope.



Learn Grammar

A Read and learn.

Order of Adjectives

More than one adjective can be used to describe a noun. The adjectives must go in a certain order:

opinion → size → age → shape → color → material

He was growing bacteria in small, round, glass dishes.
size shape material

He noticed some interesting, green, mold.
opinion color

You need a new, white lab coat.
age color



It's a good idea not to use more than three adjectives to describe a noun.

B Write the adjectives in the chart.

beautiful large old triangular wooden fantastic big cotton
ugly modern small square red round yellow glass blue new

opinion	size	age	shape	color	material

C Add one more adjective to each column in the chart.

D Check the correct sentences.

- 1 a There's a square, small, interesting photo of Alexander Fleming in my book.
b There's an interesting, small, square photo of Alexander Fleming in my book.
- 2 a We're growing a brown, ugly mold in the laboratory.
b We're growing an ugly, brown mold in the laboratory.

E Complete the sentences. Use the adjectives in parentheses.

- 1 Helen visited a _____ science museum. (modern / huge)
- 2 It had _____ windows. (round / large / glass)
- 3 There was a _____ exhibit on Alexander Fleming. (new / great)
- 4 Helen watched a _____ film about bacteria. (black and white / fantastic)
- 5 She learned a lot about _____ mold. (green / ugly)

F Read the conversation. Underline adjectives that are in the wrong order.

Helen They're building a big, new science laboratory at our school. A scientist from Denmark is coming to open it.

Mom That sounds good.

Helen But I've only got an old, gray, cotton lab coat. Can I have a new one?

Mom Yes, of course.

Helen And can I have a silver, new microscope for my birthday?

Mom All right, Helen.

Helen Thanks, Mom. I want to be a famous scientist one day. I want to discover a new, fantastic idea.

G Complete the interview. Use the adjectives in parentheses.

Helen Where did you live when you were a child?

Scientist We lived in a ¹ _____ (little / gray / old) house in the countryside. I loved exploring the ² _____ (green / beautiful) fields and finding out things.

Helen Were you always interested in science?

Scientist Yes, I was. I did experiments in a ³ _____ (brown / tiny) shed in our garden.

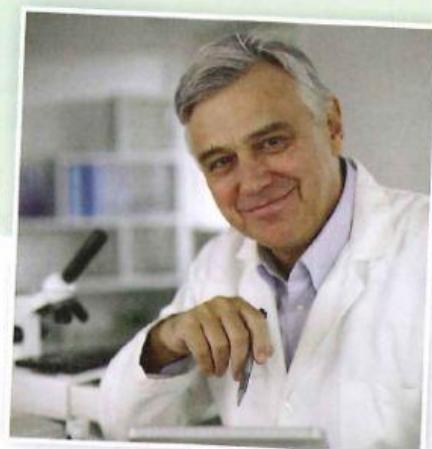
Helen Did you have a lab coat?

Scientist Well, no, I didn't. But I had a

⁴ _____ (huge / black / old) coat. It was my father's and I loved it!

H Listen and check. 24

I Act it out.



J Write the words in the correct order.

1 great / got / They've / science books / new / .

2 cotton / She's / got / a / lab coat / white / lovely / .

3 a / It's / fantastic / building / modern / large / .

4 an / interesting / He's / scientist / young / .

K Complete the email. Use the adjectives in parentheses.

Hello Lucy,

They finished building the new laboratory at our school.

We all sit at ¹ _____ (rectangular / long /

wooden) tables. We wear ² _____ (green /
cotton / smart) lab coats. We sometimes wear

³ _____ (white / small / plastic) gloves for our
experiments. I love all the ⁴ _____ (silver /

amazing) equipment. There are ⁵ _____

(black and white / big) posters of famous scientists on
the walls. I hope I discover a ⁶ _____ (new /
fantastic) idea in the laboratory!

Bye!

Helen



Let's Talk!

L Choose five things in your classroom. Use the ideas in the box or your own ideas. Think of adjectives to describe them. Take turns describing and guessing.

clock table chair school bag ruler computer pencil window

It's a large, square, wooden thing.

Is it a table?

Yes!