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Name _____

13**The Galapagos Islands**

Ecuador lies on South America's west coast. This nation owns the world's most unusual islands. They lie 600 miles off the coast. The Galapagos Islands are 18 small landmasses. They are right on the equator. Some of Earth's most unique plants and animals live there.

These islands have volcanoes, swamps, and forests. One volcano erupted in 2009. Sea currents cause four different environments. Cold water surrounds the islands. Warm winds blow over the land. So animals that live in cold and warm places **coexist**. Both penguins and iguanas live there.

The Islands' plants and animals are like those of South America. Scientists think that heavy rains made huge chunks of land

break off. They were swept down rivers. They floated out to sea. They ran into the islands. The plants and animals on these chunks of land had to adapt or die. The iguanas learned to swim. Why? The only thing to eat was seaweed. Marine iguanas do not live anywhere else.

The Charles Darwin Research Station is on the largest island. Scientists there study the wildlife. Just one island has a source of fresh water. This means few people live there. Ecuador has made the Galapagos Islands into a national park. About 40,000 tourists visit each year.

Check Your Understanding

- Where did the plants and animals in the Galapagos Islands originally come from?
 - South America
 - North America
 - Central America
 - Australia
- Which event occurred first?
 - The iguanas couldn't find enough to eat.
 - The pieces of land came to an island group.
 - Heavy rain washed pieces of land into the sea.
 - The iguanas learned how to swim.
- What makes Galapagos iguanas different from all other iguanas?
 - They do not eat green plants.
 - They eat green plants.
 - They do not know how to swim.
 - They know how to swim.
- The word **coexist** means
 - attack each other.
 - live side by side.
 - avoid each other.
 - ignore each other.



Warm-Up

6

Name _____

Surprises in the Sea

For a long time, scientists believed that the world's biggest shark, the great white, was the only giant shark still in existence. A great white shark can grow up to 15.8 feet long. It can weigh 2,450 pounds. Then, in 1976, several researchers were in a boat off the shore of Hawaii. The team made a shocking discovery. They caught a new, huge shark. No one had ever documented one before. It was 14.5 feet long and weighed 1,650 pounds. The scientists named it *megamouth*. The megamouth shark is rare. Since the megamouth discovery, only about 50 have been seen or caught. Adding to the mystery, each one caught was a male. Then a female washed ashore in Japan. This was in 1994.

In 2007, a local fisherman went to see the staff at a Japanese marine park. He told them that he had caught a strange-looking eel. The people were interested. They brought cameras and filmed the animal. It was not an eel. It was a frilled shark. No one had ever seen a live one before. They were thought to be extinct. It died quickly. We still don't know about any of its habits.

This means that there may still be strange, new species of sea animals that have not yet been discovered.

Check Your Understanding

- What would be the best reason for naming the new shark *megamouth*?
 - It was a male shark.
 - It was over 14 feet long.
 - It did not have a mouth.
 - It had a very big mouth.
- Who caught the first frilled shark?
 - Hawaiian researchers
 - Hawaiian pleasure boaters
 - a Japanese fisherman
 - the staff at a marine park
- Scientists thought that the _____ was extinct.
 - frilled shark
 - great white shark
 - megamouth shark
 - frilled eel
- How many years after first finding a megamouth shark did scientists first observe a female?
 - 5 years
 - 18 years
 - 20 years
 - 22 years

/4



Name _____

3

Iceboxes: The First Refrigerators

Before there were refrigerators, there were iceboxes. An icebox was like a cabinet. It had a top shelf, where a large block of ice sat. In the bottom part, food was kept on shelves. The cool air from the ice block moved down into this area and kept the food cool.

Where did the ice come from? In the winter, ice was cut from lakes. The huge blocks went by horse and sleigh (and later by rail car) to large brick warehouses. The walls of these warehouses were thick to keep out heat from outdoors. The blocks of ice were stacked close together. They were covered with straw, too. This helped to keep them from melting. As they were needed, the ice blocks were cut into

smaller chunks. Then, they went to each home by horse and wagon. (In the 1920s, trucks started to do the deliveries.)

Of course no one has an icebox today. A compressor cools heated air and uses it to cool things inside a refrigerator. In 1834, Jacob Perkins put a compressor on an icebox. But, since it had to be cranked by hand, it didn't catch on. By 1913, electric power could run the compressor. But it was too noisy. In 1934, General Electric built the first practical refrigerator. It took about another 10 years before most families could afford one.

Check Your Understanding

- Inside the ice warehouse, with what were the ice blocks covered?
 - towels
 - bricks
 - straw
 - lumber
- In what year did Jacob Perkins add a compressor to an icebox?
 - 1834
 - 1913
 - 1934
 - 1944
- Where was the ice block placed in a person's home?
 - underneath the icebox
 - on the top shelf of the icebox
 - on the middle shelf of the icebox
 - on the bottom shelf of the icebox
- Which person must have paid the most for blocks of ice?
 - one living in Alaska
 - one living in Maine
 - one living in Ohio
 - one living in Florida



Warm-Up

2

Name _____

The Popular Product That Almost Wasn't

Sometimes popular products almost do not happen. Post-it® Notes is one example. When Spencer Silver worked for 3M Company, he made a weak glue. He showed it to Art Fry, another worker. They both agreed it was useless. Silver threw it out.

Then, in 1974, Art Fry wished he had a way to temporarily mark the pages in a book. He hated how bookmarks fell out. He recalled Silver's weak glue. The two men started to work on bookmarks made with the weak glue. It took them 18 months to get them right. They showed the product to the advertising managers at 3M. They didn't like it.

Fry thought about how he could use it in his daily life. He decided he'd like to put temporary notes in his office. He decided to make notepads. He took his new idea to the advertising department. They were doubtful. But they said they would give it a try.

The company made enough Post-it notepads to sell in four cities. It was a test to see if anyone liked them. Few people bought them. So 3M told the stores to give them away. Once people tried Post-it Notes, they liked them. Suddenly, people called the company, wanting to buy them! Today they are one of 3M's best-selling products.

Check Your Understanding

1. What is the main idea of the passage?
 - a. If not for Art Fry's efforts, Post-it Notes would not have been invented.
 - b. Post-it Notes are the most popular product in 3M history.
 - c. Art Fry designed many new products for his employer, 3M.
 - d. At first it was hard to get people to buy Post-it Notes.
2. What is another good title for this passage?
 - a. "Giving Products Away Boosts Sales"
 - b. "Successful 3M Products"
 - c. "Making Bookmarks and Notepads"
 - d. "The Sticky Story of Post-it Notes"
3. Why was it a clever idea to give away a product?
 - a. It was a good way to get rid of stock.
 - b. No one would have paid for the product anyway.
 - c. People expect companies to give them gifts.
 - d. Once people try a product, they often want to buy it.
4. You can conclude that the 3M managers
 - a. decided to fire Art Fry.
 - b. weren't pleased that they listened to Art Fry's idea.
 - c. were glad they tried out Art Fry's idea.
 - d. gave away a lot of products from then on.

/4



Name _____

11**I. M. Pei, Architect**

Ieoh Ming Pei was born in China in 1917. His parents sent him to school in America. His father wanted him to be a doctor. Instead he earned a degree in architecture from MIT (Massachusetts Institute of Technology). This meant he designed buildings. He was soon one of the best-known **architects** in the world. He is a master of modern architecture.

During college, his friends called him I. M. He has used that name ever since. He married Eileen Loo and had four children. In 1954, the whole family became U.S. citizens. One year later, he opened his own firm.

I. M. Pei made unique designs. When creating additions for existing buildings, he

blended the new with the old. He designed an addition for the Louvre Art Museum in France. The Louvre was a palace built 800 years ago. At first, the French people did not like the idea of an addition. But when they saw Pei's clever design, they knew that the old building would look even better. During construction, digging uncovered some old castle walls. No one had known they were there. So, Pei changed his plans to make the walls a part of a display in the museum.

Some of Pei's other famous works include the JFK Library, Dallas City Hall, and the Bank of China Tower. In 1983, he won the highest prize in architecture.

Check Your Understanding

- In 1955, I. M. Pei
 - was born.
 - won an architecture prize.
 - became a U.S. citizen.
 - started his own firm.
- An **architect** is a person who
 - wins awards.
 - comes from China.
 - designs structures.
 - digs the foundation of buildings.
- Why did Pei change his original plans for the Louvre?
 - He wanted to please the people who were opposed to his designs.
 - He decided to add old castle walls into the design.
 - He needed to save money because he was going over budget.
 - He was in a hurry to move on to his next project.
- Which statement is false?
 - I. M. Pei designed the Louvre.
 - I. M. Pei received the highest prize an architect can earn.
 - I. M. Pei designed the Bank of China Tower.
 - I. M. Pei became a U.S. citizen when he was about 37 years old.

