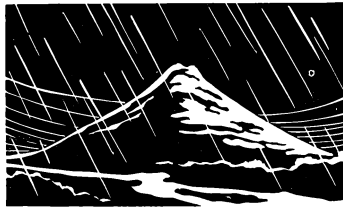


ELEMENTARY SCIENCE SECTION**THIS EARTH OF OURS****HOW THE EARTH CHANGES**

Have you ever wondered how old the earth is? Perhaps even before you went to school you had asked your parents at home how this earth you live in was formed. There are some people whose special business it is to study the earth: they are constantly observing the heavens, the rocks, and the oceans in their attempts to learn the age of the earth and the ways in which it was developed. These scientists will tell you that the earth is very old, that it is probably not less than two billion years old. They will also tell you that the earth is changing in many ways. Let us see what these changes are:

When it rains you can see soil find its way into small streams or rivers and may be carried into bays or seas. When a volcano erupts it may cover the surrounding region or a portion of it with ashes or molten rock.

Wind, running water or moving ice carries soil from one part of the earth to another, from the highest land to the oceans. The air is nearly always in motion and whenever it blows over a surface on which there is dust, some of the dust is picked up and blown to some other place.

There are two processes of changing the earth's surface known as weathering and erosion. Weathering is the process of changing rock into soil with the help of freezing water, growing

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HOMES IN THE ANIMAL KINGDOM**THE BEAVER'S HOUSE**

What is the biggest rat that you ever saw? Try to picture it again and see if you can imagine it to be much taller and heavier than the one you saw. Then you will have a clear idea of what a beaver is. For the beaver is a big relative of mice and rats. These animals (and some others) are called rodents. Rodents have strong front teeth that are very sharp and can cut even pieces of wood.

The beaver is an industrious, strong animal that can cut down a tree and build a house strong enough to stand in the water. Even if we do not find it in our country, it will repay us greatly to know everything about it for it is one of nature's most skillful animals. It is found along streams and ponds.

Beavers like to eat bark; and since they cannot climb trees to get it, they chop down the tree. They do this by slicing little pieces one at a time, making some upward cuts and some downward cuts, so that the gnawed part slopes both ways to a slender middle. When the beaver has taken out chips enough from all sides of the trunk, the tree breaks at the slender part, and comes crashing down.

The beavers then cut with their teeth the branches of the tree into smaller pieces; and part of them they use in building dams which keep the water around their houses from getting too low.

Part of the logs and sticks they use in building their houses. These are rounded at the top.

ANSWERS TO THE QUESTIONS ON PAGE 210

GRADE I		GRADE III	3. whiskers
Short words	Long words	1. horns	4. comb
to	brother	2. tail	5. snout
in	father	-----	
my	pencil	GRADE IV	
at	mother	neat	honest
for	angry	young	sunshine
	think	thoughtful	
	brought	-----	
GRADE II		INTERMEDIATE GRADES	
4	1	1. False	3. True
2	3	2. True	4. False
		5. True	7. False
		6. True	8. False
		9. False	10. False

QUARRYING STONES

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high prizes. At present, however, due to cutthroat competition, stonecutters' wages are the minimum and their work is often held up for days and even weeks for lack of orders from contractors and builders. When stonecutters are not busy at quarrying, some find work on farms or do odd jobs for a living.

The stonecutter's life, however, is not always one of drudgery and monotony. When he is in need of extra money to build or repair his house, to christen a child, or celebrate a fiesta, he holds a *pabayani* day. During this particular day, all his fellow-quarrymen, thirty or fifty, depending upon the size of the *tibagan*, quarry for him, and all the stones cut by them during the day are credited to the host or organizer of the *pabayani*. The host provides his *bayanis* with luncheon and refreshments, and he is assisted by

young ladies invited to the occasion. Much jesting and merrymaking are indulged in by everybody, and the merrier the day the faster the stonecutters work, particularly the young men whose sweethearts are among those serving the refreshments. Some day one of these workers will hold a *pabayani* too, and the host whom he has helped will work for him gratis in return for his past services. The *pabayani* is a traditional system among quarrymen and in other rural activities and keeps the spirit of mutual helpfulness alive among them.

Yes, the stonecutter's work is not an easy one, but it is not devoid of happiness also. His is usually a family calling. His father and grandfather were stonecutters and he is in the work by family inclination. Stonecutting to the patient and hard working individual is still a paying business. His calling has contributed in no small degree to the construction of homes and cities of civilized

THIS EARTH OF OURS

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plants, animals and men. The process of erosion carries away the soil formed with the help of rain, rivers, the winds, waves, and tides.

These changes occur all over the globe and the results are not at once noticed except when there is a volcanic eruption. Man is today the most active agent in changing the earth's surface. He makes dams across rivers, drains marshes and lakes, clears away forests and tills the land.

As you go from your home to your school and back again, try to find out what changes you think have taken place or are taking place along your way. Only by thus observing for yourself can you really know and understand what makes up this earth you live in.

man. As long as modern machinery has not invaded his field, the community will still need his valuable services.