

For the EDUCATIONAL REVIEW.]

NATURE STUDY.

The Functions of Living Plants.

FIRST LESSON.—FOR A BRIGHT MORNING IN JUNE.

1. Hold a burning taper (or candle) in the mouth of an inverted pickle-bottle until the flame is extinguished; then, keeping the bottle closed with the hand, shake lime-water through it.
2. Explain why the candle ceased to burn, and why the lime-water turned milky.
3. Hold a burning taper again in an inverted pickle-bottle until it will burn no longer there, and quickly lower the bottle until its mouth is below the surface of the water in a pail set below it. Push up into the bottle, without admitting air from outside, two or three vigorous leafy shoots from a growing plant. Take the bottle out of the pail in a saucer—leaving enough water in the saucer to exclude the outside air. Set the bottle and saucer in a sunny place, to be left there until the afternoon.
4. Prepare another bottle—using leafy shoots from a different plant—in just the same manner, and set it with the first.
5. Prepare a third bottle, also, but set it in darkness—under a pasteboard box, for example.
6. Burn a taper until it is extinguished in a fourth bottle; quickly lower it into a saucer of water, and set it—without any leaves in it—with the first two bottles.

SECOND LESSON.

(For the afternoon of the same day.)

1. Take the leafy shoots out of one of the bottles left in the light—keeping the mouth of the bottle under water in a pail to exclude the air from outside—and shake some lime-water through the bottle (*closed with the hand*).
2. Remove in the same manner the green shoots from the other bottle left in the light, and try whether a taper will burn in it as at first.
3. Remove, as before described, the shoots from the bottle left in darkness. Try whether a taper will burn in it; then quickly turn its mouth upward, and shake lime-water through it.
4. Try whether a taper will burn in the bottle set away without any shoots in it; and shake lime-water through it.
5. How do you explain the results, and the *differences* in the results, of these experiments?
6. Argue from these experiments that the green leaves of growing plants, in the light, absorb carbonic acid gas (carbon dioxide) from the air, and give off oxygen, but that this process ceases in the night, or in darkness.

J. BRITAIN.

Normal School, Fredericton.

The Planets in June.

Mercury will be visible the entire month, just after sunset, near to the horizon, a little north of west. This will be an unusually good opportunity to look at the innermost planet, which so few people have ever seen. Venus will be far enough away from the sun after the middle of the month to be comfortably seen; and at the end of the month will begin to be a good evening star, with Mercury a few degrees to the south. Mars will be seen in the west in the evening, having decreased in brightness so much as to be no longer conspicuous. Jupiter and Saturn will rise about dark and will be prominent objects the entire night, low in the south-east and south. Uranus will be visible to the unassisted eye as a very faint star about ten degrees east of the bright star Antares.—*Scientific American*.

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Snake Berries.

How many strange fruits grew in the woods when I was a boy! And how many familiar and unfamiliar names for them come back to my recollection now! They were learned from schoolmates and other companions in the field, with the word of my parents as final authority—for teachers in those days never troubled themselves about things that grew, and any berry that my father or my mother could not name was not worth naming.

Not to mention strawberries, gooseberries, blueberries, and others common in household use, I can recall bunchberries, pigeon-berries, choke-berries, mulberries, boxberries, teaberries, dewberries—some of them applied to berries quite different from those that they name for me now.—egg-berries, bilberries, sarsaparilla-berries, and I don't know how many more; but none among them all so useful as snakeberries. The name covered many different things, because we were never quite sure what it meant.

Snakeberries were poison. All the boys agreed in that. Perhaps now-a-days most of them would say poisonous—but what does it matter? Poisonful, if you like. The main thing was that snakeberries should be avoided; and, therefore, whenever we came upon berries that none of us knew, the older lads would say to us, "Don't eat them, boys; they might be snakeberries."

My referees at home did not know snakeberries. No one I met could tell me where they grew or what they looked like; but the wholesome dread of finding them some day by accident kept me from putting to the proof everything that looked good to eat, just as the belief that toadstools are poisonous has done in later days. The desire for the knowledge of good and evil was