

minutes we had all those distracting energies which had threatened to destroy the accomplishment of the lesson and the peace of the school concentrated upon the lesson itself.

Soon there were sentences in which the word wharf was correctly spelled by all, and time was too short to hear what those boys could tell from their own observation about the various objects about a wharf. We had some excellent contributions about the turtle and the crab, and I sent the teacher next day some very good pictures and studies which interested the class and called out still further observation and reports. That teacher never ceased to thank me for the help I gave her and dated her success afterward as a teacher to that revelation of the inter-relation of subjects of study and the natural suggestions of interest which can be deduced from the most unpromising lesson and class.—Louisa Parsons Hopkins in "N. Y. School Journal."

How to Make a Mimic Volcano.

All teachers recognize the fitness of illustration in geography and are pleased with every opportunity which offers tangibility to this usually abstruse branch of instruction.

An interesting thing in this line is the mimic volcano which is made as follows: Build a miniature mountain, about eighteen inches high, of sand or earth, and insert a one-and-one-half inch tube of coarse paper through the centre. Fill the crater with granulated sugar and chlorate potassium equally mixed and of the same consistency. A drop of sulphuric acid does the rest. The room should be darkened and proper care taken to avoid igniting any articles near by, although there is but little danger of this, and the effect is highly entertaining and profitable. The experiment should be preceded by a talk with the pupils on the subject.—[Prin. Joe E. Herriford, in "Popular Educator."

Language Lessons.

- (1) Write the names of:
 1. Ten kinds of vegetables.
 2. Five kinds of grain.
 3. Eight kinds of metal.
 4. Ten wild animals.
 5. Five kinds of fish.
- (2) Write ten words, each one ending in *ing*.
- (3) Write the following adjectives in a column, and after each write a word meaning the opposite:

thick,	late,	deep,
soft,	wide,	sharp,
cool,	fast,	even,
right,	smooth,	large,
high,	old,	broad,
- (4) Change these sentences to express *past* time:
 1. I lay the book on the desk.
 2. We lie down to sleep.
 3. The mason lays the bricks.
 4. The cows lie in the shade.
 5. The old man lies on the floor.

—[Journal of Education,

QUESTION DEPARTMENT.

E. M. L.—(1) Hamblin Smith's Arithmetic, page 273, Ex. 138:

A makes	50	when B makes	45
A	"	100	" B " 90
A	"	50	" C " 40
A	"	100	" C " 80

Therefore B makes 90 when C makes 80; that is B can give C 10 points.

(2) Hamblin Smith's Arithmetic, page 273, Ex. 140.

Cubic feet of water used altogether = 14 m. 6 fur. × 48 ft. × 1 in. = 311520 cubic feet. Cubic feet of water used for each barge = $80 \times 12 \times 8\frac{1}{2}$ = 8160 cubic feet.

$$\text{No. of barges} = \frac{31150}{8160} = 38 +$$

QUERIST.—(1) I forward to you by this mail a box containing a specimen rock. Would you please tell me what it is? Its streak is similar to manganese, and it won't burn nor melt in a blow pipe flame, but it lacks a bright metallic lustre.

It is shale, or clay mud rock. The laminae have been distorted by pressure, and so are uneven and waving. The little whitish grains in it are crystals that have been developed in the mass, probably they are feldspathic. The rock might occur in slightly metamorphic strata.

2. In the sentence, "The public is not satisfied with the minister's statement," in what part of the analysis would the last four words be placed, and why?

An adverbial adjunct of manner, respect, (with = in regard to).

(3) In the sentence, "An act was passed for preventing obstruction in Parliament," which is the better way to analyze the last, "for preventing obstruction." First, as adverbial of reason, telling why the act was passed; or second, in the enlargement of the subject, telling really what the act was.

As enlargement of the subject.

E. A. H.—Where can I obtain the information necessary to teach events since confederation? If you will inform me where to procure the necessary means (not too expensive) you will confer a favor.

The History of Canada, by J. Frith Jeffers, M. A., is very much used by some of our teachers and is well liked, especially for the period since confederation. It may be obtained from E. G. Nelson & Co., St. John, and costs 30 cents.

SUBSCRIBER.—Please solve the following question from Hall & Knight's Higher Algebra, page 3: "A vessel contains *a* gallons of wine, and another vessel contains *b* gallons of water; *c* gallons are taken out of each vessel and transferred to the other; this operation is repeated any number of times. Show that if