

Enrichment 2-1

Cryptoquiz

A cryptoquiz is a type of word puzzle in which you use deductive reasoning to decipher a secret code of letters. The letters in a cryptoquiz word are not what they seem. Each letter of the alphabet is replaced with a different letter. The puzzle is to figure out what each letter actually represents.

For example, if WINF is the code for MATH, then you know that for each word in the cryptoquiz W represents M, I represents A, N represents T, and F represents H. You would use this information to help decode other words in the cryptoquiz. With each word deciphered, more of the code is revealed. Each cryptoquiz has a different secret code.

Use these hints to help you break the code and complete the cryptoquiz.

- The title of the group will give you a hint about what the disguised words may be.
- Because there are two words with five letters, try to think of two five-letter geometry words that begin with the letter P.
- Begin by deciphering the code in Exercise 3, using one of the two five-letter words.

The Basic Ps of Geometry

1. L N C J A
2. L N B A Q W H A P
3. L H X H W W P W
4. L P X L P J O C S Q W H X
5. L P X C R P A P X
6. L W H J P
7. L X N A X H S A N X
8. L P J A H V N J

Use your answers to the cryptoquiz to fill in the blanks.

9. If the code letter ? stands for the letter ? in one word, then it will be the same throughout the cryptoquiz.
10. Using your answers from above, write the code for the word *prism*.
11. Describe how deductive reasoning can be used to determine the word in Exercise 3 by using the word in Exercise 6.
12. Create your own cryptoquiz using another group of geometric words, such as two-dimensional shapes, three-dimensional shapes, or property names.

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