## Train Your Brain!

Through repetition, you can train your brain to become faster at a new skill. When you process a thought, messages are sent across connections in the brain called synapses. Synapses that are used repeatedly become strengthened and more productive. The exercise below will show you the effect of repetition on your brain's synapses.
Directions: Using the code breaker below, decipher each scrambled sentence and record how long it takes you to the nearest second using a clock or timer. Then answer the questions that follow.

## Code Breaker

| $A=Z$ | $E=V$ | $I=R$ | $M=N$ | $Q=J$ | $U=F$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $B=Y$ | $F=U$ | $J=Q$ | $N=M$ | $R=I$ | $V=E$ |
| $C=X$ | $G=T$ | $K=P$ | $O=L$ | $S=H$ | $W=D$ |
| $D=W$ | $H=S$ | $L=O$ | $P=K$ | $T=G$ | $X=C$ |

1. Vcvixrhv hgivmtgsvmh blfi ylwb zmw rnkilevh blfi nrmw.

Time it took to solve: $\qquad$
2. Ksbhrxzo zxgrergb kilwfxvh kilgvrmh gszg rnkilev nvnlib.

Time it took to solve: $\qquad$
3. Vcvixrhv kilwfxvh z yizrm xsvnrxzo gszg rnkilevh nllw.
$\qquad$
$\qquad$ - - $\qquad$
$\qquad$
$\qquad$
$\qquad$ .

Time it took to solve: $\qquad$

Think It Through: Write your answers on separate paper.

1. You were likely able to decode the third sentence more quickly than the first one. What was your difference in seconds?
2. If you were able to solve the third sentence more quickly, why do you think that was so?
3. Write the following sentence using the coding key above: "I am a super decoder." You may have written some of the letters in code without looking at the code breaker. Explain the brain process at work.
4. How can you use this knowledge of how your brain works to improve your grades?
5. How can you use this knowledge to improve your ability to stop and think before making a decision?
