

As you awaken your neuronal networks, you'll find that you can build up your creative thinking skills. You will be stimulating and strengthening your neurons, bolstering healthy dendrites, and extending their branches to make new connections.

Brain Games Sampler

The brain teasers that follow will give you a sample of the kinds of exercises you can do to tweak your neural circuits. You don't have to enroll in an intensive course of conversational French or begin a marathon of power Scrabble to build brain muscle. The key is to discover new challenging mental activities that you also enjoy so that you will want to continue them over time. Perhaps you love pop music but are curious about the symphony. Go check it out. Or maybe you've always loved piano recitals but have never taken a lesson. Try it—you might enjoy it.

The key is to train but not strain your brain. To help you find your mental aerobics sweet spot, I have included a range of exercises from beginning to advanced. They are arranged to cross train your brain, jumping from right-brain to left-brain workouts. Once you figure out what type of brain games you enjoy, you may wish to check the Internet or other resources to keep shaking up your mental challenges.

BEGINNING EXERCISES (Answers on p. 124)

1. **WARMING UP.** I like to stretch a little in the morning before I do my physical workout. Engaging neural circuits in ways that are different from their usual patterns provides a good mental stretch and warm up.

Try this one: Take a piece of paper and a pencil and use your non-dominant hand (i.e., left hand if you are right-handed) to write your first and last name in cursive.

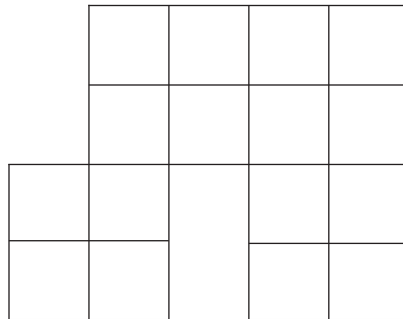
2. **LETTER SCRAMBLE.** This puzzle will tweak your left-brain language centers and your frontal lobe.

From the scrambled letters below, see how many words of three or more letters you can write down. For extra credit, set your timer for four minutes. Ready, set, go:

A E L S K

3. **COUNTING SQUARES.** Let's get your right brain charged up with your frontal lobe in the visual spatial puzzle below.

Count up the number of squares in the figure to the right.



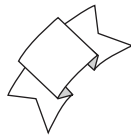
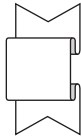
4. **HIDDEN PROVERB.** Proverbs exercise abstract thinking. Here's a twist on a familiar proverb.

The vowels have been removed, and the remaining letters broken up into groups of two or three letters each. Replace the vowels and find the proverb:

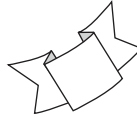
PNN YFR YR THG HTS

5. **ROTATING FIGURES.** Here's a right-brainer that works your ability to rotate images.

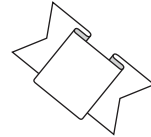
Look at the object on the left and then choose the version that matches (A, B, or C).



A



B



C

6. **WORDPLAY.** Here's more brain fun with letters and words.

Beginning with the word **HAND**, change one letter at a time until you come up with the word **CART**. Each change must spell another word.

H A N D

— — — —

— — — —

C A R T

There may be several correct answers.

7. **ROTATING FIGURES IN SEQUENCE.** This exercise requires you to pick out the sequence and rotate images at the same time. Give it a try to pump up your right hemisphere.

Complete the sequence by choosing object A, B, or C:



8. **SPELL CHECK.** As our brains age, we are often able to recognize patterns and derive meaning from words, even when those words are misspelled and appear to be gibberish.

See how well you do with the sentence in the box below:

**Erexnsicig the mnid apepars to aguemnt mntéal
catacpiy and ftiorfy neauri ciricruty so plpeoe can tinhk
faestr and bteetr.**

9. **GROUP SORTING.** Picking out patterns often involves figuring out whether an item belongs to a particular group. Practice your pattern recognition skills with the items below.

You'll note three types of items. Try to quickly sort them into groups. Set your timer for 30 seconds:

ruler	clipper	colander
spatula	rake	mower
eraser	scissor	pot
whisk	pencil	hoe

10. WORD RECOGNITION. Figure out the one word suggested by the three words in the box below.

FOCALS
FOCALS
FOCALS

ANSWERS TO BEGINNING EXERCISES

1. WARMING UP. No right answer.
2. LETTER SCRAMBLE. Here are the words I wrote down. You may have found others as well:
ALE, ALES, ASK
ELK, ELKS, ELS
KALE
LAS, LAKE, LAKES, LEA, LEAS, LEAK, LEAKS
SAKE, SALE, SEA, SEAL
3. COUNTING SQUARES. 22 (don't forget all the combinations of squares within squares).
4. HIDDEN PROVERB. A PENNY FOR YOUR THOUGHTS.
5. ROTATING FIGURES. C
6. WORD PLAY. Here's my solution to the puzzle (changed letters are bold and underlined):

HAND
H**A**R**D**
CARD
C**A**R**T**

7. ROTATING FIGURES IN SEQUENCE. B

8. SPELL CHECK.

Exercising the mind appears to augment mental capacity and fortify neural circuitry so people can think faster and better.

9. GROUP SORTING.

Office supplies: ruler, scissors, pencil, eraser

Cooking utensils: spatula, colander, pot, whisk

Gardening tools: clipper, rake, mower, hoe

10. WORD RECOGNITION. Trifocals

If you enjoyed these mental challenges and didn't get too frustrated, consider moving on to the intermediate exercises that follow. Otherwise, repeat these exercises tomorrow and perhaps check out some websites and puzzle books with brainteasers at a similar level of difficulty before ratcheting up to harder puzzles. The next group of puzzles is a bit more challenging, but can be even more fun.

INTERMEDIATE EXERCISES (Answers on p. 129)

1. **CURSIVE ON THE LEFT.** Take your nondominant handwriting exercise to the next level:

Use a piece of paper and a pencil with your nondominant hand (i.e., left hand if you are right-handed) to write your first and last name in cursive, and then write it backward. Good luck.

2. **LETTER SCRAMBLE SEQUEL.** Here's a fresh batch of scrambled letters. See how many words of three letters or more you can write down this time. To make the exercise a bit tougher, set your timer for three minutes.

T R E I O A

3. **FLIP THE GOALPOST.** Here's a stimulating teaser that uses only four toothpicks or matchsticks, but will score points for your frontal lobe.

Arrange the toothpicks in the shape of a football goalpost as shown below. By moving only two of the toothpicks, see if you can reverse the direction of the goalpost (make it go upside down).



4. **ANOTHER HIDDEN PROVERB.** Expand your abstract thinking with this exercise.

All the vowels have been taken out of the following proverb, and the remaining letters are broken up into groups of three to five letters each. Replace the vowels and find the proverb:

B R D N T H H N D S
W R T H T W N T H B S H

5. **BODY PARTS.** Here is a challenging brainteaser that will activate those neurons in your prefrontal cortex:

Name the ten body parts that have only three letters. The T word for breast and the A word for buttocks don't count.

6. **WORD GRID POWER.** Here's one that will draw out both your visual spatial skills and your verbal skills.

Use the letters I I L D N N A A E E S S to complete the following grid, which will need to spell out words that read the same across as down.

			P
		E	
	E		
P			

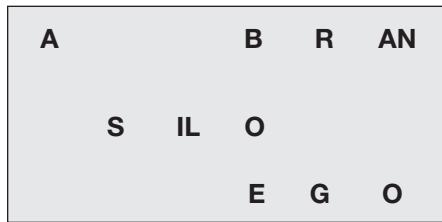
7. **NUMBERING OFFICES.** This riddle will give you a chance to let your logical and mathematical skills shine.

Gloria's job is to hang the numbers on all the doors of the second floor of a new downtown office building, which includes suites

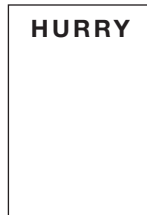
200 to 299. How many of the number 2 will she need to complete her assignment?

8. **JUMBLED LETTERS.** Let's awaken your word power skills with this teaser. Take your time and concentrate, and you should get the right answer.

See if you can find the letters mixed up below that spell the names of two brain-healthy spices. Use each letter only once.



9. **TAKE A HINT.** Figure out the message suggested by the word in the box below.



10. **REVERSE GEOGRAPHY.** Which of the following does not belong in the set?

K R O Y W E N N A G I H C I M
A W O I A N A I D N I O I H O
S I O N I L L I A T O S E N N I M

ANSWERS TO INTERMEDIATE EXERCISES

1. CURSIVE ON THE LEFT. No right answer.
2. LETTER SCRAMBLE. Here are the words I wrote down. You may have found others as well:

TAR, TARE, TEAR, TIE, TIER, TIRE, TOE, TOR, TORE, TRIO

RAT, RATE, RITE, ROT

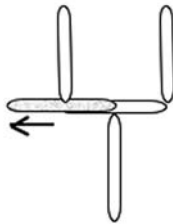
EAT, EAR

IOTA, IRATE, IRE

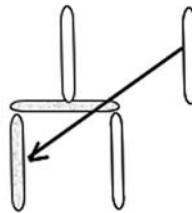
OAR, OAT, ORATE, ORE

ART, ATE

3. FLIP THE GOALPOST. Slide the horizontal toothpick to the left until the left upper vertical toothpick touches its center. Then bring down the right upper vertical toothpick that's left on its own, so that its upper point touches the left point of the horizontal toothpick. Or do the converse: Move the horizontal toothpick to the right as described, then move the left upper vertical toothpick down. You now have an upside down goalpost with just two moves.



Step 1



Step 2

4. HIDDEN PROVERB.
A BIRD IN THE HAND IS WORTH TWO IN THE BUSH.
5. BODY PARTS.
ARM, EAR, EYE, GUM, HIP, JAW, LEG, LIP, RIB, TOE

6. WORD GRID POWER.

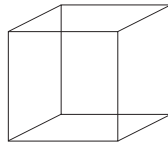
L	I	S	P
I	D	E	A
S	E	E	N
P	A	N	E

7. NUMBERING OFFICES. She will need 120 of the number 2. Remember, she'll need an extra 2 for 220–229 as well as the other 2s that she'll need.
8. JUMBLED LETTERS. Oregano and basil.
9. TAKE A HINT. Hurry up.
10. REVERSE GEOGRAPHY. "AWOI" is the one that does not belong. The seven words are seven U.S. states spelled backward, and Iowa is the only one of those states that does not border a Great Lake. A second correct answer is "KROY WEN" since New York is the only non-Midwestern state in the group.

Assuming you are not completely burned out from all this mental lifting, you may want to move on to the advanced exercises.

ADVANCED EXERCISES (Answers on p. 133)

1. **THREE-DIMENSIONAL DRAWING.** Let's tweak your brain hemispheres once again by taking out a piece of paper and drawing the following three-dimensional image with your non-dominant hand:
2. **HIDDEN WORDS.** The jumbled letters below can be rearranged



to spell out an antioxidant fruit. See if you can find it.

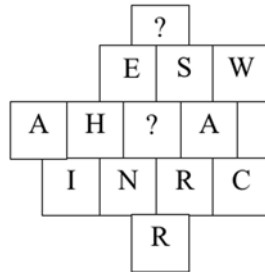
Y E R Y S E B N B R O

3. **WHICH SWITCH WORKS?** Here's an old mental twister that never ceases to amuse some of us puzzle fanatics and can give your frontal lobe a good workout:

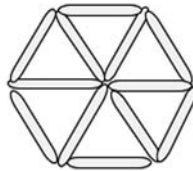
A lightbulb is hanging in a room, and outside the room there are three switches. Only one of the switches connects to the bulb. All three switches are in the off position and the bulb is not lit. If you can only go in the room once to see if the bulb is lit or not (the bulb cannot be seen from outside), how can you determine which of the three switches will turn on the bulb?

4. **WORLD GEOGRAPHY.** See if you can stretch your frontal lobe again and come up with the ten countries whose name is composed of only four letters.
5. **MISSING LETTERS.** Fill in the two missing letters and unscramble the letters to find the famous English naturalist whose theory had a major impact on 20th-century thinking. Use

each letter only once.



6. MORE TOOTHPICK FUN. Arrange 12 toothpicks as displayed below, and then try to create three triangles by moving only four of the toothpicks.



7. TRICKY EQUATION. The following equation is incorrect. How can you make it correct without moving a single line?

$$X + | = | X$$

8. THINKING INSIDE THE BOX. What is implied by the word in the box below?



9. **NUMBER SEQUENCE.** Figure out the next number in the sequence below:

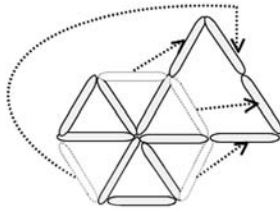
2 7 4 1 4 6 2 1 8 2

10. **ASKING FOR DIRECTIONS.** You need directions to the museum because you are a bit lost. You finally get to the street you were looking for, but are not sure whether to turn left or right. You recognize two acquaintances from work, Stuart and Maurice, and decide to ask them for directions. You don't know them well but recall that one of them always tells the truth while the other always lies—you just can't remember which one is the liar and which one is the truth teller. How can you find out which way to turn by asking only one of them one question?

ANSWERS TO ADVANCED EXERCISES

1. **THREE-DIMENSIONAL DRAWING.** No right answer.
2. **HIDDEN WORDS.** Boysenberry.
3. **WHICH SWITCH WORKS?** To find the correct switch (1, 2, or 3), turn switch 1 to the on position and leave it there for a few minutes. Then turn switch 1 back to the off position and turn switch 2 to the on position and enter the room. If the lightbulb is lit, then switch 2 is connected to it. If it is not lit, then either switch 1 or 3 is connected to the bulb. Briefly touch the bulb to determine which one. If the bulb is still hot, switch 1 is the correct answer; if the bulb is cold, switch 3 is connected to the bulb.
4. **WORLD GEOGRAPHY.**
Chad, Cuba, Fiji, Iran, Iraq, Laos, Mali, Oman, Peru, Togo
5. **MISSING LETTERS.** CHARLES DARWIN (L and D are the missing letters).

6. MORE TOOTHPICK FUN.



7. TRICKY EQUATION. Turn the book upside down—you'll see 11, 1, and 10 in roman numerals.

8. THINKING INSIDE THE BOX. Cornerstone.

9. NUMBER SEQUENCE. The sequence actually includes two different sequences that are interspersed. The first sequence is 2-4-6-8- . . . and the second sequence is 7-14-21-28- . . . The correct answer is: 8.

10. ASKING FOR DIRECTIONS. You should ask Stuart, "If I turn left, will I find the museum according to Maurice?" If Stuart answers yes, then you should turn right; if he answers no, then you should turn left.

Here is the explanation: If Stuart tells the truth, Maurice is always lying, so you need to do the opposite of whatever Stuart tells you (he will be telling Maurice's lie and incorrect directions). Conversely, if Stuart is a liar, he will always be telling you the opposite of the true directions that Maurice is providing.

Keep Building Your Brain Muscle

Most experts recommend that people remain mentally engaged and stimulated throughout life. A recent study from investigators at University College in London suggest that people who delay retirement