

## Brain Fitness Program

### Pillar 4



### Exercise Regularly

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Welcome to the Celebrate Seniority at-home Brain Fitness program, packet two.

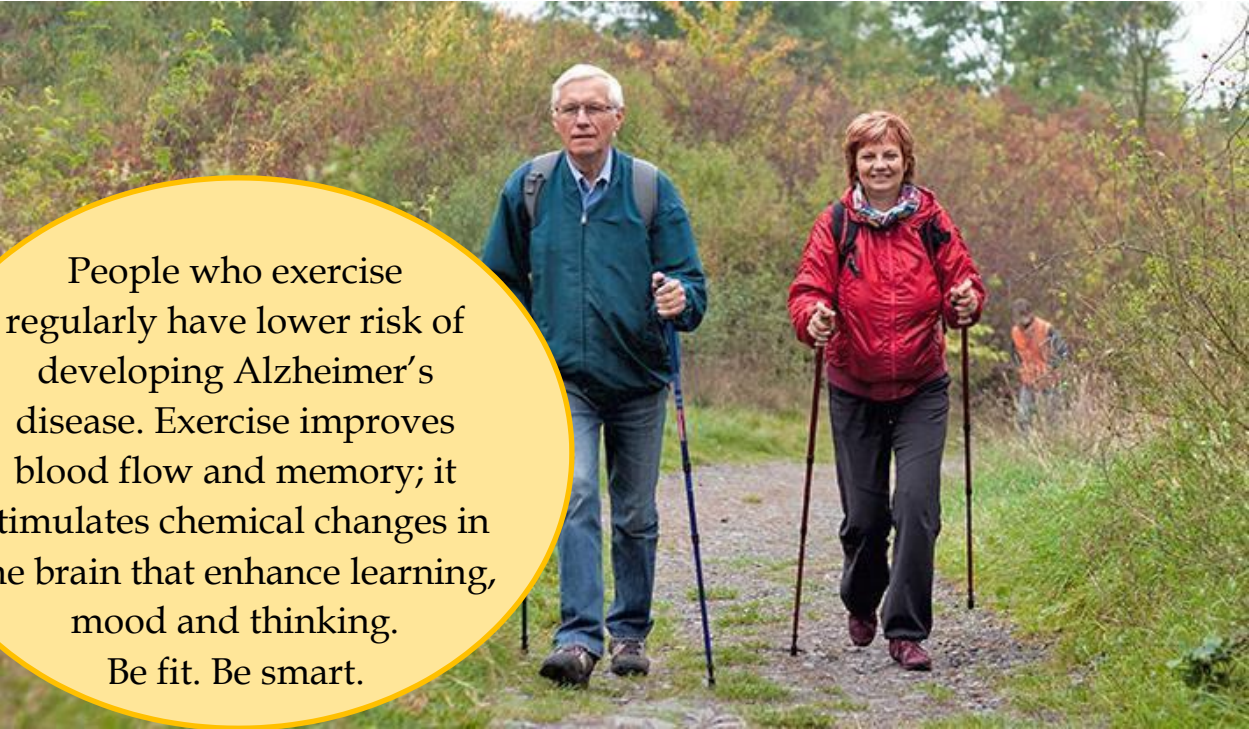
This program is based on the six pillars of brain health and will help support those interested in understanding their brain health and challenging themselves.

Each packet will focus on one of the following pillars of brain health (modeled after Healthy Brains by Cleveland Clinic):

1. Engage your brain
2. Connect with others
3. Adopt a healthy diet
- 4. Exercise regularly**
5. Get refreshing sleep
6. Reduce stress and maintain a healthy blood pressure level

Each packet will include stimulating puzzles with answers, activities, pillar-specific information and additional resources. To download additional packets and watch related videos, visit **[multicare.org/volunteers/celebrate-seniority/](https://multicare.org/volunteers/celebrate-seniority/)**.

**Brain Fitness Team:** celebrateseniority@multicare.org Deborah Gurney 253-697-7386



People who exercise regularly have lower risk of developing Alzheimer's disease. Exercise improves blood flow and memory; it stimulates chemical changes in the brain that enhance learning, mood and thinking.  
Be fit. Be smart.

**The Main Idea** - According to the Physical Activity Guidelines for Americans you should do at least **150 minutes (2 ½ hours) a week** of moderate-intensity aerobic exercise, like brisk walking, house chores, or dancing. Being active at least 3 days a week is best but doing anything is better than doing nothing at all. You should also do muscle-strengthening activities, like lifting weights or doing sit-ups, at least **2 days a week**. The Physical Activity Guidelines also recommend that as part of your weekly physical activity you combine multiple components of exercises. For example, try balance training as well as aerobic and muscle-strengthening activities; aim for at least **75 minutes a week**.

- Exercise Musts**
- Talk with your doctor if you are unsure about doing a particular exercise**
  - Don't hold your breath during strength exercises and breathe regularly.**
  - Breathe out as you lift or push and breathe in as you relax.**

## Four Types of Exercise

Most people tend to focus on one type of exercise or activity and think they're doing enough. Research has shown that it's important to get all four types of exercise: **endurance**, **strength**, **balance**, and **flexibility**. Each one has different benefits. Doing one kind also can improve your ability to do the others, and variety helps reduce boredom and risk of injury.

**Endurance activities** increase your breathing and heart rates. Endurance exercises improve the health of your heart, lungs, and circulatory system. They also can delay or prevent many diseases that are common in older adults such as diabetes, colon and breast cancers, heart disease, and others. Physical activities that build endurance include: Brisk walking or jogging; yard work (mowing, raking); vacuuming, dancing; swimming; biking; Climbing stairs or hills; playing tennis or basketball.

Building your **muscle strength** can make a big difference. Strong muscles help you stay independent and make everyday activities feel easier, like getting up from a chair, climbing stairs, and carrying groceries. Keeping your muscles strong can help with your balance and prevent falls and fall-related injuries. Strength exercises include lifting weights, even your own body weight, and using a resistance band.

**Balance exercises** help prevent falls, a common problem in older adults that can have serious consequences. Many lower-body strength exercises also will improve your balance. Exercises to improve your balance include yoga and Tai Chi.

- **Try standing on one foot, then the other. If at first you need support, hold on to something sturdy. Work your way up to doing this movement without support. Get up from a chair without using your hands or arms.**

Stretching can improve your **flexibility**. Moving more freely will make it easier for you to reach down to tie your shoes or look over your shoulder when you back your car out of the driveway.

# Find Your Starting Point

For a couple of weekdays and a weekend, write down how much time you are physically active (for example, walking, gardening, playing a sport, dancing, lifting weights). The goal is to find ways to increase your activity.

	ACTIVITY	NUMBER OF MINUTES	WAYS TO INCREASE ACTIVITY
WEEKDAY 1			

Total Minutes \_\_\_\_\_

	ACTIVITY	NUMBER OF MINUTES	WAYS TO INCREASE ACTIVITY
WEEKDAY 2			

Total Minutes \_\_\_\_\_

	ACTIVITY	NUMBER OF MINUTES	WAYS TO INCREASE ACTIVITY
WEEKEND			

Total Minutes \_\_\_\_\_



## STRENGTH

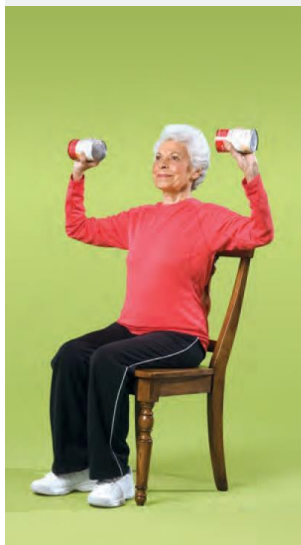
# Overhead Arm Raise

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You can do this exercise while standing or sitting with your feet flat on the floor, shoulder-width apart.

- 1 Hold weights at your sides at shoulder height with palms facing forward.
- 2 Slowly raise both arms up over your head keeping your elbows slightly bent.
- 3 Hold the position for 1 second.
- 4 Slowly lower your arms.
- 5 Repeat 10-15 times.

**TIP:** As you progress, use a heavier weight and alternate arms until you can lift the weight comfortably with both arms.



## STRENGTH

### Back Leg Raise

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- 1 Stand behind a sturdy chair, holding on for balance.
- 2 Slowly lift one leg straight back without bending your knee or pointing your toes. Try not to lean forward. The leg you're standing on should be slightly bent.
- 3 Hold the position for 1 second.
- 4 Slowly lower your leg.
- 5 Repeat 10-15 times.
- 6 Repeat 10-15 times with the other leg.

**TIP:** *As you progress, you may want to add ankle weights. You also can challenge yourself to improve your balance (see page 14).*



## BALANCE EXERCISES

### Stand on One Foot

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- 1 Stand on one foot behind a sturdy chair, holding on for balance.
- 2 Hold the position for 10 seconds.
- 3 Repeat 10-15 times.
- 4 Repeat 10-15 times with the other leg.

**TIP:** *As you progress, you can also challenge yourself to improve your balance (see page 14).*





## Back

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If you've had hip or back surgery, talk with your doctor before trying this stretch.

- 1 Sit toward the front of a sturdy chair with armrests, with your feet flat on the floor, shoulder-width apart. Stay as straight as possible.
- 2 Slowly twist to the left from your waist without moving your hips. Turn your head to the left. Lift your left hand and hold on to the left arm of the chair. Place your right hand on the outside of your left thigh.
- 3 Hold the position for 10-30 seconds. Slowly return to face forward.
- 4 Repeat 3-5 times. Reverse positions and repeat 3-5 times on the right side.

**TIP:** As you progress, try lifting your left arm and resting it comfortably on the back of the chair. Hold on to the left armrest with your right arm. Repeat on your right side.



# Books and Authors

Match the author to the correct book.

- |                            |                                    |
|----------------------------|------------------------------------|
| 1. George Orwell _____     | A. <i>Emma</i>                     |
| 2. John Steinbeck _____    | B. <i>The Call of the Wild</i>     |
| 3. Virginia Woolf _____    | C. <i>Catch-22</i>                 |
| 4. C. S. Lewis _____       | D. <i>1984</i>                     |
| 5. J. R. R. Tolkien _____  | E. <i>Jane Eyre</i>                |
| 6. Charles Dickens _____   | F. <i>Les Misérables</i>           |
| 7. Jane Austen _____       | G. <i>The Chronicles of Narnia</i> |
| 8. E. M. Forster _____     | H. <i>War and Peace</i>            |
| 9. A. A. Milne _____       | I. <i>A Passage to India</i>       |
| 10. E. B. White _____      | J. <i>The Grapes of Wrath</i>      |
| 11. Victor Hugo _____      | K. <i>To the Lighthouse</i>        |
| 12. Ernest Hemingway _____ | L. <i>The Iliad</i>                |
| 13. Jack London _____      | M. <i>Winnie-the-Pooh</i>          |
| 14. Daniel Defoe _____     | N. <i>Great Expectations</i>       |
| 15. Homer _____            | O. <i>Robinson Crusoe</i>          |
| 16. Joseph Heller _____    | P. <i>The Hobbit</i>               |
| 17. Charlotte Brontë _____ | Q. <i>For Whom the Bell Tolls</i>  |
| 18. Leo Tolstoy _____      | R. <i>Charlotte's Web</i>          |



# 100 in a Row

Arrange these numbers so that each row across totals 100.



<b>7</b>	<b>11</b>	<b>12</b>
<b>27</b>	<b>32</b>	<b>35</b>
<b>41</b>	<b>53</b>	<b>82</b>


# Mixed-Up Cosmetics

Unscramble the letters to reveal words associated with cosmetics.



1. R C M A A A S \_\_\_\_\_
2. E R N O T \_\_\_\_\_
3. L I T C K I P S \_\_\_\_\_
4. N O A T N D I U O F \_\_\_\_\_
5. O T O I L N \_\_\_\_\_
6. R G U O E \_\_\_\_\_
7. B R R E Z N O \_\_\_\_\_
8. E E Y S W D H O A \_\_\_\_\_
9. E I R R U S M T O Z I \_\_\_\_\_
10. D O P R W E \_\_\_\_\_
11. I P L G L S S O \_\_\_\_\_
12. C A L F I A R E M C A \_\_\_\_\_
13. N E A C E R C O L \_\_\_\_\_
14. S H U B L \_\_\_\_\_
15. Y E E R L N E I \_\_\_\_\_
16. T F X O A I N L E \_\_\_\_\_
17. I A N L P S L O H I \_\_\_\_\_
18. E E P R U F M \_\_\_\_\_

# Opening Night at the Opera

The words listed below can be found vertically, horizontally, diagonally, forward, and backward.



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

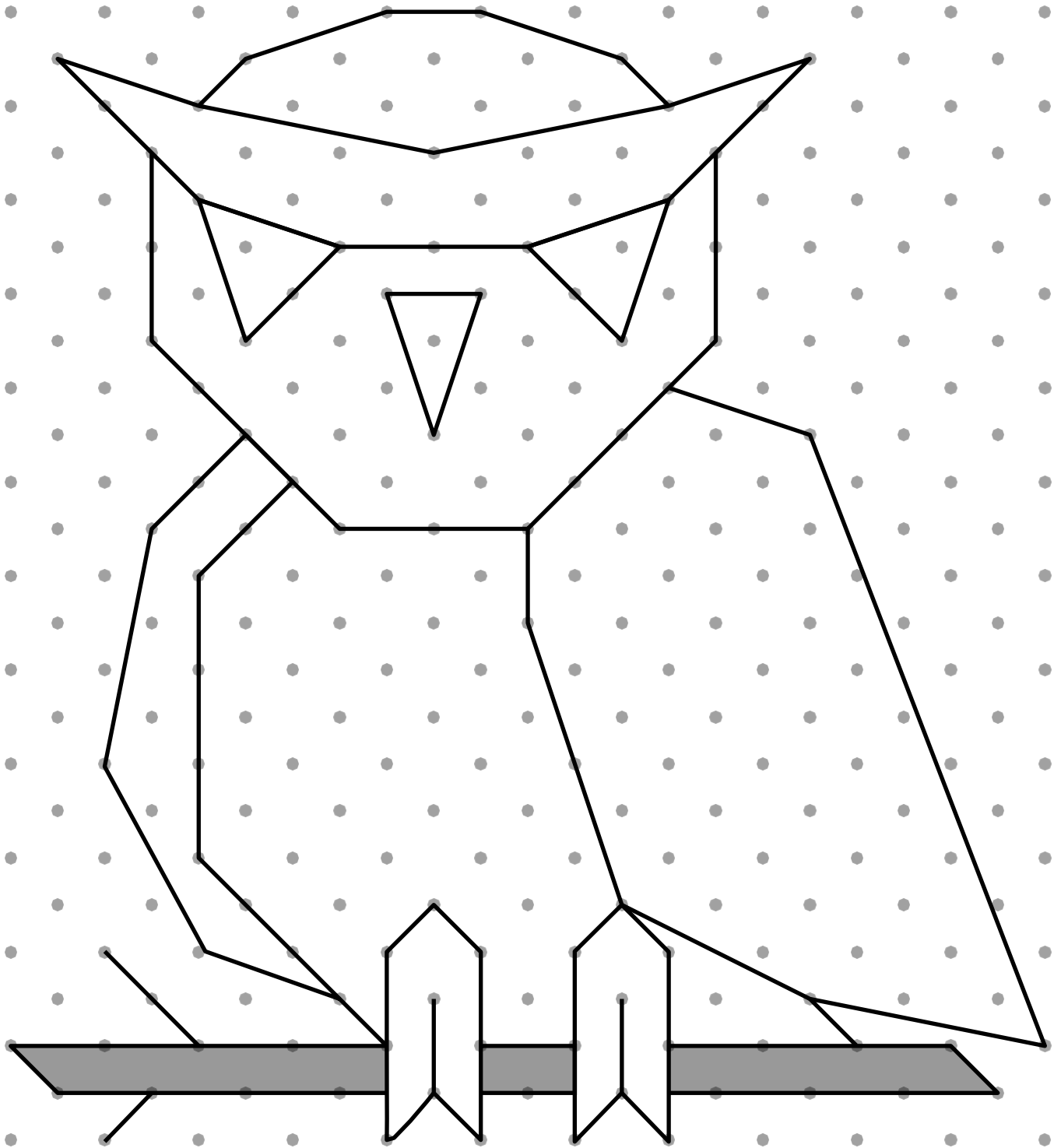
APPLAUSE  
BARITONE  
CONDUCTOR  
COSTUME  
DIRECTOR  
DUET

EMOTION  
GERMAN  
GLASSES  
HOUSE  
ITALIAN  
MUSIC

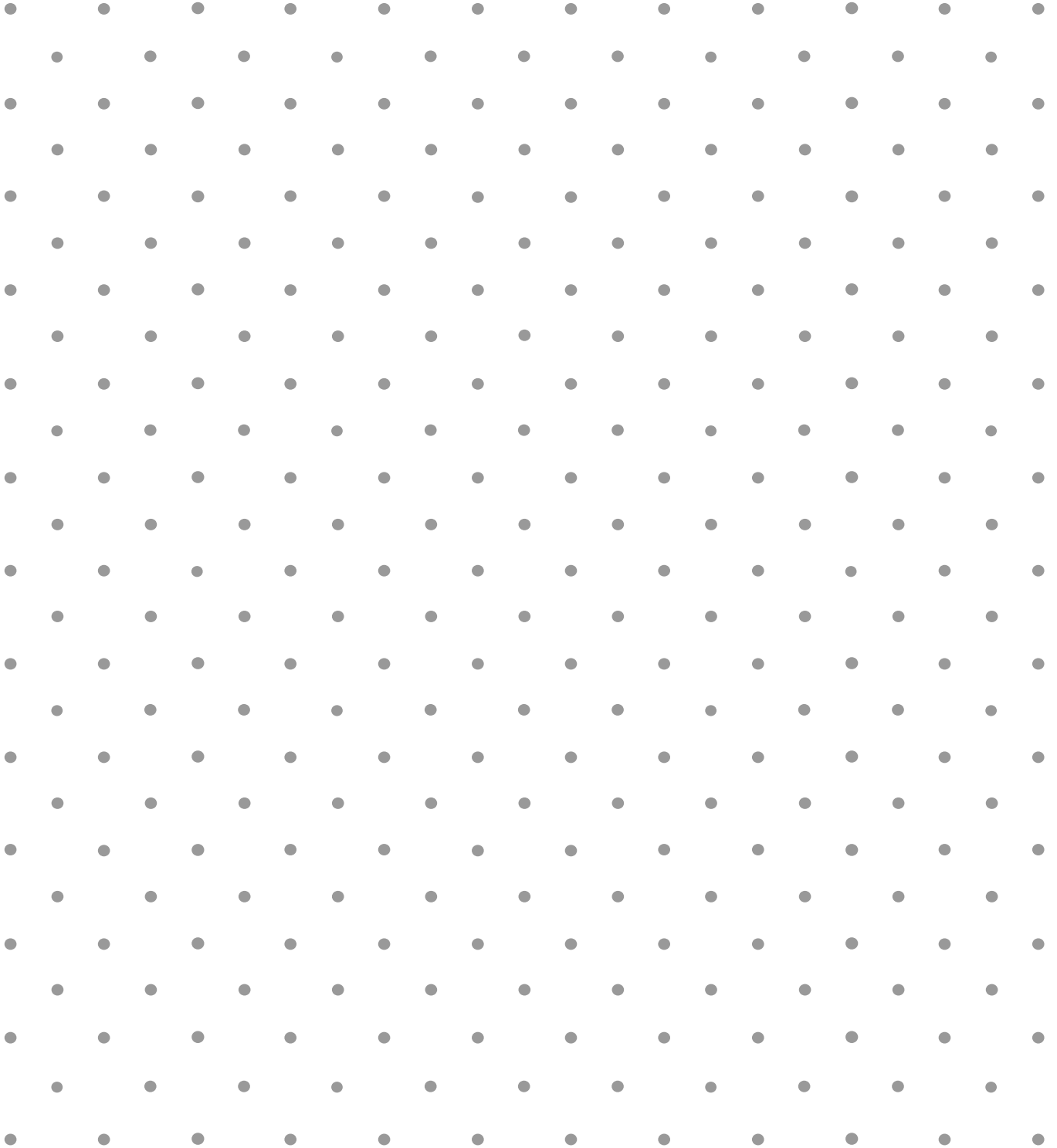
ORCHESTRA  
PASSION  
SCENERY  
SOPRANO  
SORROW  
TENOR

# Dot Doodles #1

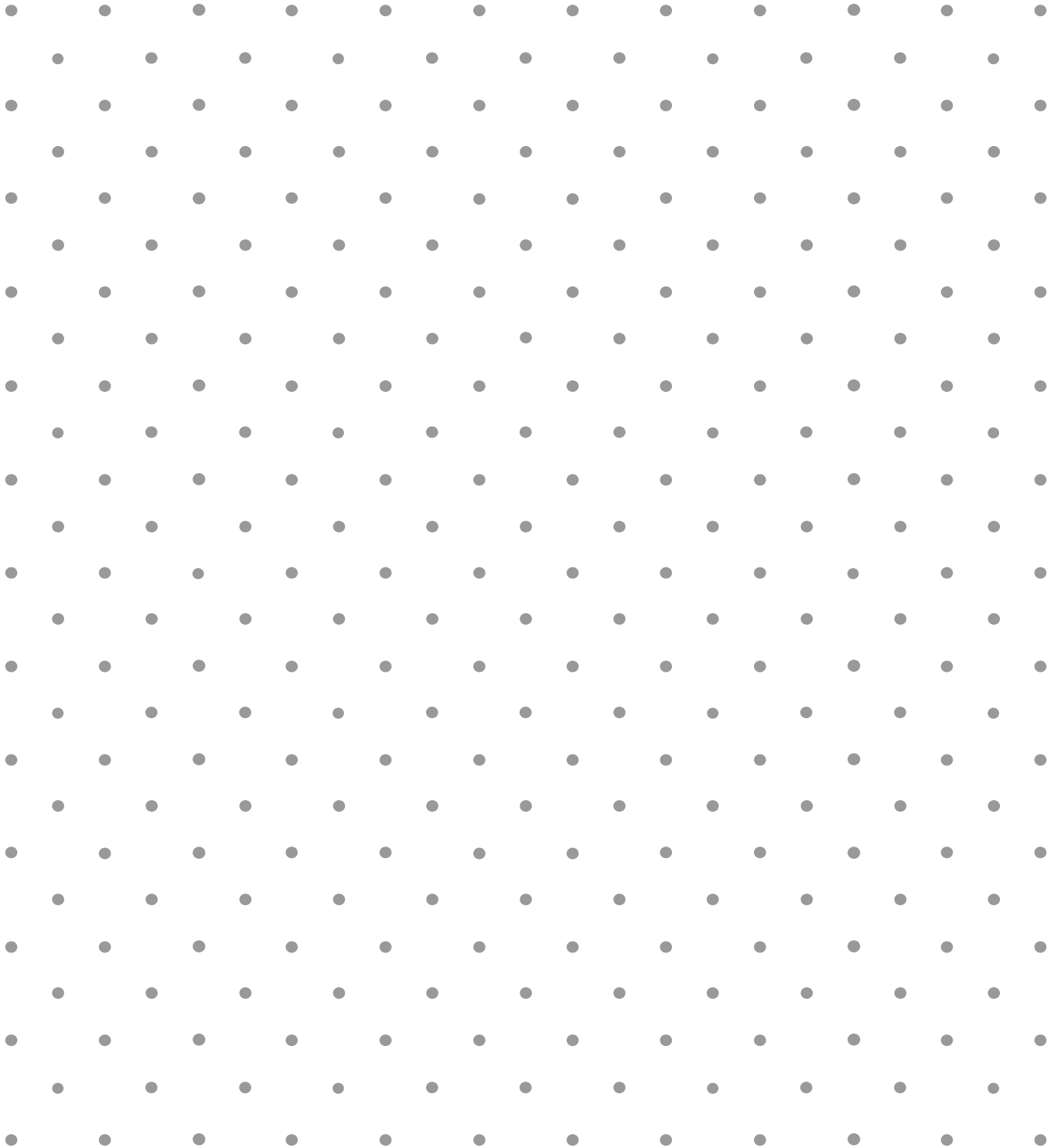
Duplicate the drawing using the blank sheet of dots. This is a challenging exercise, so we have given you two sheets of dot paper to use.



# Dot Doodles #1



# Dot Doodles #1





# Proper Noun Exercise

Dr. Rob Winningham

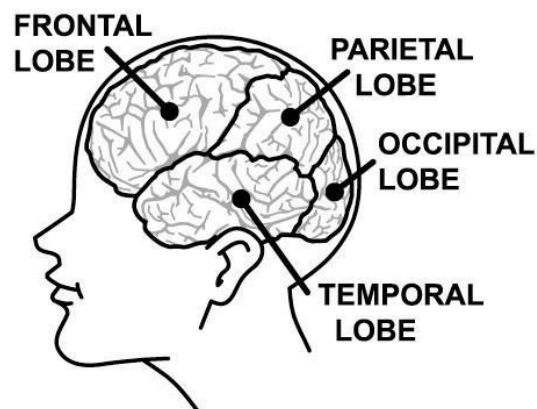
## Proper Noun Activity Explained

One of the most common complaints older adults have about normal changes in cognition is the reduced ability to retrieve proper nouns, especially names of people they know. This phenomenon is called a “Tip-of-the-Tongue (TOT) State.” (It is on the tip of your tongue, but you just can’t quite remember it.) Although this phenomenon was described in 1890 by America’s pioneering psychologist William James, the term itself was coined by Brown and McNeill in 1966.

Being able to recall a proper noun is often accompanied by knowledge of some of the word’s features, such as the first letter or which syllable is stressed. And, finding the word or name is often followed by great relief. Given that this state occurs at least twice as often in older adulthood than it does in younger adulthood, there could be some advantage to exercising this ability.

One of the best ways to exercise this ability is to try to come up with a word or proper noun associated with every letter of the alphabet. Choose a category (first names, last names, names of countries, etc.) and have participants try to think of an appropriate noun that begins with each letter. Trying to generate names is particularly helpful since the inability to think of a proper noun is a very common type of “Tip-of-the-Tongue State.”

This activity exercises the anterior (front) part of the temporal lobe and parts of the frontal lobe.



## Proper Nouns A to Z

Fill in each blank with the name of a city that begins with that letter of the alphabet. (**Hint:** Do you know anyone who has been to Xenia, Ohio, or Youngstown, Ohio? How about Zurich, Switzerland?)

A \_\_\_\_\_

P \_\_\_\_\_

B \_\_\_\_\_

Q \_\_\_\_\_

C \_\_\_\_\_

R \_\_\_\_\_

D \_\_\_\_\_

S \_\_\_\_\_

E \_\_\_\_\_

T \_\_\_\_\_

F \_\_\_\_\_

U \_\_\_\_\_

G \_\_\_\_\_

V \_\_\_\_\_

H \_\_\_\_\_

W \_\_\_\_\_

I \_\_\_\_\_

X \_\_\_\_\_

J \_\_\_\_\_

Y \_\_\_\_\_

K \_\_\_\_\_

Z \_\_\_\_\_

L \_\_\_\_\_

M \_\_\_\_\_

N \_\_\_\_\_

O \_\_\_\_\_



# Books and Authors

(solution)

- |                      |                                    |
|----------------------|------------------------------------|
| 1. George Orwell     | D. <i>1984</i>                     |
| 2. John Steinbeck    | J. <i>The Grapes of Wrath</i>      |
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# 100 in a Row

(solution)

<b>7</b>	<b>11</b>	<b>82</b>
<b>12</b>	<b>35</b>	<b>53</b>
<b>27</b>	<b>32</b>	<b>41</b>

# Mixed-Up Cosmetics

(solution)

1. mascara
2. toner
3. lipstick
4. foundation
5. lotion
6. rouge
7. bronzer
8. eye shadow
9. moisturizer
10. powder
11. lip gloss
12. facial cream
13. concealer
14. blush
15. eye liner
16. exfoliant
17. nail polish
18. perfume

# Opening Night at the Opera

(solution)

A 15x15 grid of letters with red arrows indicating the solution paths for the words 'AIS', 'ESUOH', 'RSD', 'EKT', 'NRT', 'OZVIT', 'OOW', 'QPVF', 'HOT', 'ARZBT', 'TPT', 'IGFD', 'NQI', 'SLRGV', 'CRE', 'MAS', 'EAG', 'STE', 'IOVE', 'ANEL', 'NC', 'OPK', 'KOH', 'AWRN', 'OXOO', 'S', 'DLV', 'TFMCN', 'IOR', 'TSYE', 'HPO', 'UESER', 'DFIT', 'RMS', 'APP', 'LAUSE', 'ORUE', 'UKS', 'GER', 'MANDO', 'AMNS', 'UDAO', 'OLC', 'PFS', 'CBE', 'EII', 'ZTL', 'NOI', 'SSAP', 'ACC', 'TIYXG', 'TNZ', 'DIIF', 'SYU', 'QJJ', 'AQ', 'PLC', 'YMR', 'ROTC', 'UDNOC', 'M', 'AFT', 'UZVT', 'ONYO', 'ZDUB'.

## Proper Nouns A to Z (possible cities)

Anchorage

Boston

Cleveland

Daytona

Eaton

Fairbanks

Gettysburg

Honolulu

Istanbul

Jerusalem

Kokomo

London

Madrid

Naples

Oakland

Paris

Quebec

Raleigh

Shanghai

Tokyo

Union City (Just about every state has a Union City.)

Vail

Warsaw

Xenia

Youngstown

Zurich