cognitive skills

GAME PACK

six fun brainy games for parents and kids to do together
How does brain training help your brain?

Did you know that what you do for your brain today can impact what your brain can do for you tomorrow?

I’m Dr. Ken Gibson, founder of LearningRx, and I’ve been helping people get faster, smarter brains for 40 years.

This game pack contains six fun brainy games. You’ll need a partner for some of the games, so grab a parent or grown-up (or even a friend or sibling).

These games are good for you because intense mental exercise stimulates your brain to improve the way information is processed and remembered. And when your brain handles information better, it makes school, work and life easier.

In LearningRx Centers across the country, our brain trainers work one-on-one with kids and adults, taking them through intense, customized workouts for the brain. Our programs help people think, learn, read, reason, remember and pay attention better than before.

I hope you enjoy this game pack. No matter what your age, it’s never too soon (or too late!) to take better care of your brain!

Let the games begin!

Dr. Ken Gibson
Founder
LearningRx

To learn more or find a center near you, visit:
www.learningrx.com

Getting Smarter Starts Here.

This exercise will work on your brain’s attention skills and working memory skills, too! You won’t be able to do all the levels quickly right away (if you could, your brain wouldn’t get any exercise!).

Besides, the best way to train your brain is to find the level where it gets hard, then keep going! It’s like pumping iron. Make your brain sweat a little.

SUPER SIMPLE: From the top row, left to right, call out the color of each arrow. Practice until you can do it without mistakes.

EASY SMEASY: Call out the direction of each arrow (right, left, up or down).

NEURON BUILDER: Practice until you can do “Easy Smeasy” within 40 seconds! Then 20 seconds! (Yikes! Is your brain sweating yet?)

CHALLENGE: Call out the direction of the arrows as if they were turned a quarter-turn clockwise. Get your time down to 20 seconds without any mistakes.

BRAINY: Call out the COLOR of the UP and DOWN arrows, and call out the DIRECTION of the LEFT and RIGHT arrows. (You’re exercising a brain skill called “divided attention”!)

Make it even tougher by calling out “Red!” for yellow arrows, and “Blue!” for green arrows. (Your brain is really sweating now, isn’t it? Good! Keep pushing until you can do it quickly and smoothly.)

EINSTEIN: Call out the direction of each arrow, but in your mind turn red and green arrows a quarter-turn clockwise, and turn yellow and blue arrows a quarter-turn counterclockwise.

Whew! Now go back and do some of the earlier levels. Piece of cake, yes? That’s because all that “mental sweat” is training your brain skills to handle new challenges!
**BATTER UP**

This brain teaser is calling your name.

Cognitive brain TRAINING is soooo unlike schoolwork and classroom teaching. This exercise develops divided, selective, and sustained attention, working memory, math computation, and processing speed.

**PREPARATION:** Grab a partner and toss around a few numbers to warm up your brains.

**DIRECTIONS:** One person (the Pitcher) slowly calls out the numbers printed in green in the lineup below. The other person (the Batter) gets to mentally add the last two numbers the Pitcher says and say the answer out loud. For example, as soon as the Pitcher reads the first two numbers (“1, 4”), the Batter says “5.” (The correct answers are in blue below the line of green numbers).

But here’s where it gets tricky. When the Pitcher reads the next number in the list (“2”) the Batter may be tempted to call out “7” (by adding 2 and 5). The RIGHT answer, however is “6.” Remember, as Batter, you want to mentally add up the last two numbers that come out of the Pitcher’s mouth—not the last two numbers you hear. After you go through all the numbers in the exercise, swap roles and try again.

**BRAINY:** To add difficulty (like it wasn’t already challenging enough!) have the Batter call out the difference between the last two numbers the Pitcher speaks, rather than the sum. That means subtract, don’t add. Next, make it even harder by multiplying.

**EINSTEIN:** Ready for the big leagues? Now make up your own series of numbers using double-digit numbers (here’s an example: “21 14 50 19 73…”).

Ready? Play ball!

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**BATTER UP! GIVE IT A TRY…**

**EXERCISE**

(with Addition Answers)

```
1 4 2 3 3 5 2 3 4 1 2 3 4 5 2 5 2 1 5 2 4 2 6 6 4 9 3 1
5 6 5 6 8 7 5 7 5 3 5 7 9 7 7 7 3 6 7 6 6 8 1 0 1 3 1 2 4

“Pitcher” calls out… (numbers in green)

“Batter” says… (correct Addition Answers in blue)

Subtraction Answers:

-3  2  -1  0  -2  3  -1  -1  3
-1  -1  -1  -1  3  -3  3  1  -4
3  -2  2  -4  0  2  -5  6  2
```

**Multiplication Answers:**

```
4  8  6  9  15  10  6  12  4  2  6
12  20  10  10  10  2  5  10  8
8  12  36  24  36  27  3
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WORD PLAY

Did you know your brain can “shift gears,” engaging a set of brain skills that make up something called “higher thinking”?

Take your brain for a test drive with this word game!

WARM UP YOUR ENGINE: Quick! Spell your first name out loud. That was easy, right? Here’s why: You probably write your name 20 times a day, making the spelling of your name “known” information. That’s why you can do it so quickly! You merely need to pay attention to the instructions and remember them long enough to spit out the answer. It’s what we call “automatic processing.” Now try this...

PUT THE PEDAL TO THE METAL: Quick! Spell the last name of the first American president backwards. Not so simple, right? Here’s why: To do this, first your brain has to determine if this is “known” information or if this is going to take some figuring out.

If it’s going to take some figuring out, your brain engages your “higher thinking skills.” Higher thinking skills include long-term memory (which reminds you that the first president was a guy named “Washington”). Another higher thinking skill is logic & reasoning (which allows you to figure out how you want to solve the problem). If you decide to solve it visually, visual processing skills allow you to “see” the word as a picture in your head and “read” the letters from right to left. If you decide to solve the problem by sound, auditory processing skills allow you to repeat the word a few times so you can “hear” the sounds, then retrieve the letter codes that make up those sounds.

However you solved it, congratulations! With this one word game, there’s a good chance you got to take most of your brain skills for a spin! Good job!

WORD CHALLENGE: Pick a partner and challenge each other to a backwards word duel. Use a dictionary to choose especially tricky words like: PROJECTILE.
**DECK-O-CARDS**

No sleight of hand involved! A simple deck of cards can help you strengthen your brain!

These games work on mental processing speed by using a deck of cards.

**GAME 1**
Shuffle the cards thoroughly, then sort the cards into three piles. While you’re sorting, count by twos out loud. Can you sort and count at the same time without getting mixed up?

**PILE 1**
Red cards ace through 10

**PILE 2**
Black cards ace through 10

**PILE 3**
All face cards

**GAME 2**
Shuffle the cards thoroughly, then sort the cards into three piles. While you’re sorting, count by threes out loud. A little harder, isn’t it?

**PILE 1**
Red cards ace through 10

**PILE 2**
Black cards ace through 10

**PILE 3**
All face cards

**GAME 3**
Shuffle the cards then sort the cards into eight piles:

**PILE 1**
Ace through 10 of hearts

**PILE 2**
Ace through 10 of spades

**PILE 3**
Ace through 10 of clubs

**PILE 4**
Ace through 10 of diamonds

**PILE 5**
Face cards that are hearts

**PILE 6**
Face cards that are spades

**PILE 7**
Face cards that are clubs

**PILE 8**
Face cards that are diamonds

**BRAIN BONUS:** Now try all three games again and keep track of your time with a stopwatch. With a little practice, how much time can you shave off each game? Can you cut your time by a third? If you REALLY work your brain (can you feel that mental sweat?) can you cut your time in half?
PICTURE THIS!

Here’s a quick way to memorize a list of, well…anything! Let’s see how it works on these presidents!

Here’s a surprisingly fast, fun way to memorize grocery lists, facts for tests, even the names of a dozen people you just met at a party! Let’s practice with the names of recent presidents of the United States.

When you look at these drawings, what’s the first thing you see? A yawning sun (Johnson). Can you hear the loud yawning sound the sun makes as he stretches?

What happens next? Oh look…the sun is getting nicked (Nixon) by a knife held by a Ford (Ford) balanced in a cart (Carter).

As before, imagine everything in great detail, down to the color of the wheels on the cart. Be sure to “link” the images in your mind, thinking about what each image is doing that links it to the images before and after.

Good job! Now finish the rest of the pictures. The Ford is balanced in a cart mounted with a ray gun (Reagan). The ray gun is aimed at a bush (Bush), holding up a clothesline for hanging a clean ton (Clinton) of clothes. Of course, the other end of the line is tied to another bush (Bush) from which an “O” llama (Obama) is eating a leaf. Notice one of the llama’s hooves is touching base.

Who is calling him safe? (an umpire, ump). And what letters are on his chest protector? (‘TR’) (Trump).

Running through those same pictures in your mind, name all ten presidents in this exercise.

Now make up your own list of 10 things and memorize that list using this game. (Then try 15 things, then 20…) Before long, you’ll be wowing your friends! Have someone read a list of items to you, slowly, one time. They’ll be amazed when you can repeat the whole list back to them without a mistake!
QUIZ-O-RAMA

Can you answer these questions about your brain?
Here’s a fun multiple choice quiz that reveals lots of interesting secrets about your brain!

1. According to neuroscientists, your brain
   a) is “plastic,” meaning it can be changed
   b) feels like rubber
   c) is locked and unchangeable after the age of seven

2. The number of neurons in your brain is approximately
   a) the same number as there are stars in the Milky Way
   b) 10 million
   c) 100 billion

3. Brain trainers are kind of like
   a) teachers, because they teach you interesting facts about the brain
   b) personal trainers at the gym, because they use intense exercise to work on speed, efficiency and skills in part of your body (your brain)
   c) Dog obedience school instructors, because they teach your brain to do things like “sit” and “roll over”

4. The human adult brain weighs about
   a) a pound and a half
   b) 2.5 pounds
   c) 3.5 pounds

5. When you are awake
   a) your brain produces enough electricity to power a light bulb
   b) you use about 10% of your brain
   c) your brain releases a growth hormone that, well, makes you grow

6. Some kids have gotten higher IQs by an average of 15 points
   a) the minute they turned 13, because teenagers know everything*
   b) as soon as they cut their weekly TV-watching hours in half*
   c) after working with a LearningRx brain trainer for 12 to 24 weeks*

7. Something your brain cannot do is
   a) make new neurons
   b) feel pain
   c) compensate for brain injury by rerouting communication pathways around damaged parts of the brain

Correct answers:
1) a.
   The other term scientists use to describe the plasticity of the brain is neuroplasticity. Best yet, your brain is “plastic” your entire life, meaning you can improve how your brain performs even when you’re in your 70s, 80s, 90s and beyond!

2) a and c.
   There are an estimated 100 billion stars in the Milky Way, about the same number of neurons in your brain!

3) b.
   Brain trainers don’t deliver information like teachers or tutors. Instead, they exercise your brain and help you practice and develop skills. In that way they are more like a personal trainer at the gym than anything else. Woof woof.

4) c.
   3.5 pounds.

5) a.
   Your brain can power a light bulb (don’t you feel brighter knowing that?).

6) c.
   After 12 to 24 weeks of LearningRx brain training, kids and teenagers can improve their IQ by an average of 14 points! To learn more about our research and results on thousands of LearningRx clients, visit: www.learningrx.com/results.

7) b.
   Your brain can make new neurons, it can reroute communication pathways, but it cannot feel pain.
The activities in this Game Pack are designed to exercise your core brain skills of attention, working memory, long-term memory, processing speed, auditory processing, visual processing, and logic & reasoning.

**Here’s why that matters:**

Whether you’re reading a book, studying for a test, discussing something with your boss, chatting with a friend or even driving a car, your brain is being bombarded with information from all five of your senses.

All that incoming information is processed through these seven core skills. Like cogwheels in a machine, these core brain skills work together to move information into stored knowledge.

**What happens if even one brain skill is weak?**

- If even one of these skills is weak, it can keep your brain from fully processing incoming information.
- This can create frustrating challenges with reading, learning, memory, attention and more.
- Hiring a tutor or simply “trying harder” might get you through a class or project, but these approaches aren’t necessarily designed to get to the root of the problem.

LearningRx targets and train weak cognitive skills.

At LearningRx, our brain trainers work one-on-one with clients aged 5 to 105, using intense mental exercises to train the weak cognitive skills that are behind most learning, reading, memory, and attention struggles.

What is brain training like? Think about working out at the gym every day with a personal trainer who holds you accountable, encourages you, customizes workouts to make them fun and challenging, and pushes you beyond your comfort zone. That’s exactly what LearningRx trainers do, but for the brain instead of the body.

**LEARNINGRX** is the premier one-on-one brain training company in the world, with more than 70 brain training centers across the United States, and brain training programs in more than 40 countries around the world.
A QUIZ FOR MOMS & DADS
If your child is struggling with grades or homework, should you hire a tutor or a brain trainer?

Hire a tutor.
If your child is behind in school because of the flu, a string of substitutes, or because construction workers next door were running jackhammers all month, hire a tutor. In other words, if circumstances have interfered with the delivery of information to your child, hiring someone to redeliver that information makes a lot of sense.

Hire a brain trainer.
But if information was delivered well the first time around and your child is still struggling (especially year after year or in class after class), you don’t need a tutor. You need a brain trainer.

Then take this quiz:
Should you hire a tutor or a brain trainer? Read both columns and check the box next to any statement that applies:

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your son or daughter...</td>
<td>Your son or daughter...</td>
</tr>
<tr>
<td>is struggling as a result of missing classes due to illness or vacation.</td>
<td>has received tutoring in subjects for which he/she still struggles.</td>
</tr>
<tr>
<td>is struggling as a result of moving to a new school, or relocating frequently.</td>
<td>is struggling in more than one class.</td>
</tr>
<tr>
<td>is struggling in a single class due to poor presentation of information (inexperienced or absent teacher, missing class materials, etc.).</td>
<td>has always disliked or struggled with reading.</td>
</tr>
<tr>
<td>shows a special gifting or passion, and you want someone knowledgeable in that subject to tutor your child at an advanced level.</td>
<td>takes a long time doing homework.</td>
</tr>
<tr>
<td>catches on right away if a concept needs to be explained a second time.</td>
<td>has chronically struggled in school or with tests.</td>
</tr>
</tbody>
</table>

HIRE A TUTOR if you checked one or more boxes in Column A (and none of the boxes in Column B).
HIRE A BRAIN TRAINER if you checked one or more boxes in Column B (regardless of how few or how many boxes you checked in Column A).
Brain Training is **LIFE CHANGING**

Won’t my child outgrow his or her learning struggle?

Not necessarily. Children and teens who struggle do so for a reason, and the reason is often weak cognitive skills. As your child is maturing, weak cognitive skills don’t necessarily catch up (which is why adults can struggle with learning, memory, or attention, too). Perhaps a better question is, while your child is struggling, how are those struggles impacting his or her self-image? Confidence? Love of learning?

Whatever stages of education or life your child is in, it’s never too soon to take action to work on weak cognitive skills.

If hiring a tutor year after year isn’t working for your family, call us. Brain training really is life changing. Kids love the experience, and parents love the results.

<table>
<thead>
<tr>
<th></th>
<th>Before LearningRx</th>
<th>After LearningRx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-Term Memory</td>
<td>38</td>
<td>59</td>
</tr>
<tr>
<td>Long-Term Memory</td>
<td>37</td>
<td>66</td>
</tr>
<tr>
<td>Logic &amp; Reasoning</td>
<td>38</td>
<td>67</td>
</tr>
<tr>
<td>Processing Speed</td>
<td>38</td>
<td>66</td>
</tr>
</tbody>
</table>

Take a look at average improvements based on before and after-testing of 6,000 clients (mostly kids struggling in school) who have gone through our programs.

This chart shows, in percentile points, the average improvements in clients with moderate cognitive weaknesses. These numbers are based on the average pre- and post-test results of thousands of clients, without a control group. You may see more, less or no improvement in IQ and/or cognitive skills following your program. For all our results, visit: www.learningrx.com/results.

Visit LearningRx.com to find a LearningRx Brain Training Center near you.

Mention coupon code BrainyPack and receive initial cognitive skills testing at a discounted price. Contact a LearningRx Brain Training Center for details.