


# HAPPY neuron


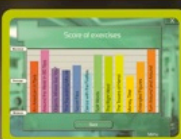
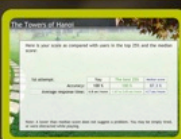
## BRAIN FITNESS

### Brain FITNESS

ALL YOUR BRAIN NEEDS TO STAY FIT FOR LIFE  
[www.happy-neuron.com](http://www.happy-neuron.com)



**Doctor Endorsed**  
 "Studies have shown that rich and varied cognitive stimulation can delay the onset of age related brain decline and Alzheimer's disease by a number of years."  
*Bernard Croisile, M.D., Ph.D.*

**AWARDS**

**"Use it or Lose it"**  
 Have a great time while working with the Brain Fitness CD-ROM

- Developed by leading neurologists & neuroscientists
- Personalized workouts & success analysis
- Supervised & cross-functional training
- 12 challenging exercises with rich & varied workout methods
- Hundreds of hours of fun game experience
- Remember – no game, no brain!

**YOUR BENEFITS**


- ✓ Remember more
- ✓ React quicker
- ✓ Concentrate better
- ✓ Think sharper

**PUT YOUR MIND THROUGH ITS PACES**

**Brain FITNESS**

Brain fitness is vital for success in daily life for everyone, whether you are a student, professional, baby boomer, or senior. This CD-ROM contains fun and innovative brain fitness games and tools that will help improve your brain health and function with varied workouts. Your brain requires unique and complex stimulation to really build brainpower. THIS SCIENTIFICALLY BASED CD-ROM GIVES YOU EVERYTHING NEEDED TO TRAIN YOUR BRAIN!

**MINIMUM SYSTEM REQUIREMENTS:**  
 PC CD-ROM: Windows 95/98/ME/2000/XP/VISTA and NT4 - SP4. Pentium 700 processor or higher; 512MB RAM; 50MB Hard disk space; 4 x CD-ROM drive; 800 x 600, 32 bits.  
 Technical contact: [usadmin@happy-neuron.com](mailto:usadmin@happy-neuron.com)



**PC CD**

**Brain FITNESS**

# Brain FITNESS

ALL YOUR BRAIN NEEDS TO STAY FIT FOR LIFE

**HAPPY neuron**

HAPPYneuron, Inc.,

[www.happy-neuron.com](http://www.happy-neuron.com)

# Table of Contents

<b>Brain Fitness</b>	<b>1</b>
Introduction	1
How it Works	1
Features	2
Benefits	2
Minimum System Requirements	2
An American in Paris	3
Around the World in 80 Trips	5
Dance with the Fireflies	7
Entangled Objects	9
Money Time	11
Objects, Where are You?	13
Secret Files	15
Split Words	17
The Right Word	19
The Squeaking Mouse	21
The Towers of Hanoi	23
Turning Around and Around	25

# Brain Fitness

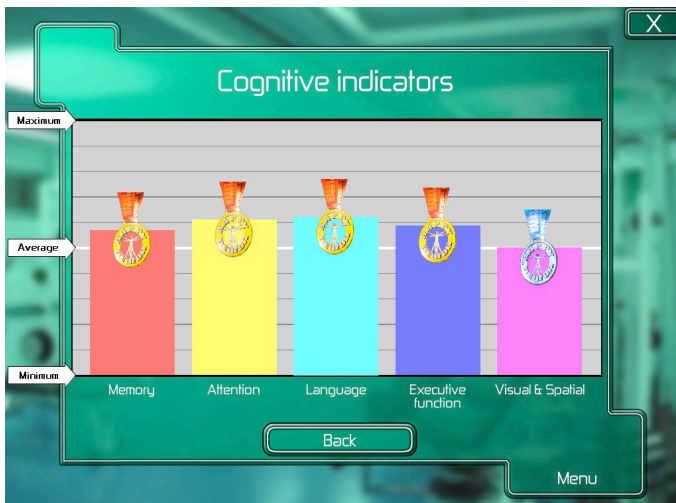
## Introduction

Brain vitality and agility is vital for success in daily life for everyone, whether you are a student, professional, a stay-at-home-mom or are retired. This **BRAIN FITNESS** CD-ROM contains fun and innovative exercises and tools that will provide your brain with a full mental workout.

Your brain requires novel and complex stimulation to build brainpower. This program provides just that! In just 20 minutes per day, **BRAIN FITNESS** will help increase thinking ability, prevent brain aging, and hone all five cognitive functions of memory, language, concentration, visual/spatial skills and executive function. Moreover, it will provide you with the tools to monitor and track your progress.

## How it Works

The way to improve is to continually challenge yourself. As you develop your abilities, **BRAIN FITNESS** will automatically adapt to your progress and present ever increasing challenges. It is satisfying to succeed quickly and effortlessly, but the key to creating new neural pathways and keeping your mind sharp is to challenge yourself and “push the envelope”. You’ll see the coach recommendations highlighted by a yellow star as you start each new game. The yellow star designates the level of challenge we believe you are capable of, based on our scientific analysis of your past performance.



**BRAIN FITNESS** will keep you informed of your progress as you perform the exercises (AKA Play the Games). Get your friends and family to play as well. Cultural memory, long-term memory, concentration, reasoning, and visual and spatial skills will all be tested in the Warm Up exercises.

**BRAIN FITNESS** will also track your progress on the Warm Up exercises and will assign "Weak" and "Strong" areas to your tasks in the Coach area.

In the Coach session, choose from a variety of short and long exercises based on themes such as Strengths, Weaknesses, Random Workout, etc.. You can also attempt the "Total Workout" in the Coach section to challenge a broad spectrum of cognitive skills. Strive for the Challenge Sessions in Memory, Logic or Concentration and finally achieve cognitive ultra sharpness with the Grand Slam workout.

## Features

- ✓ Developed by a team of leading doctors led by Dr. Bernard Croisile
- ✓ 12 Unique Exercises with multiple difficulty levels
- ✓ Hundreds of hours of unique exercises
- ✓ Cross functional training in all 5 major cognitive functions
- ✓ Variety of Coach Sessions - Warm Up, Total Workout, Special Challenges
- ✓ Track your performance improvements
- ✓ Review your performance against your peers - those in your same age, gender and education level
- ✓ Get detailed global performance reports emailed to you on demand
- ✓ Maintain all your performance results if you upgrade to HAPPYneuron online

## Benefits

- ✓ Remember More
- ✓ Concentrate Better
- ✓ Think Sharper
- ✓ React Quicker
- ✓ Increase Confidence
- ✓ Sharpen Processing Speed

## Minimum System Requirements

- ✓ Computer: PC (this product does not run on Macintosh)
- ✓ Operating System: Windows 95/98/ME/ME/2000/XP/Vista and NT - SP4
- ✓ Processor: Pentium 700 processor or higher
- ✓ Memory: 512 MB RAM
- ✓ Disk Space: 50 MB
- ✓ Display: 800 x 600, 32 bits
- ✓ CD ROM Drive: 4 x CD-ROM
- ✓ Sound Card, Keyboard, Mouse

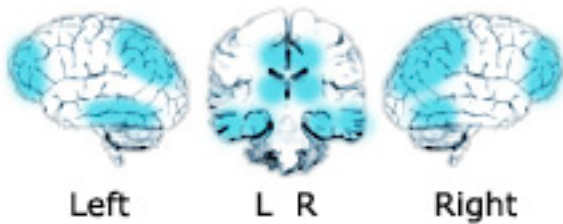
# An American in Paris



## Game Description

Get your guidebooks out because this game provides a splendid tour through eight of the greatest cities on earth, including Paris, Rome and London. You will need to memorize the names of some of the most famous monuments in your favorite city, together with their locations on a grid.

## Cognitive Function Exercised



The game challenges your visual-spatial skills and your visual memory. The primary areas of the brain exercised in this game are the right parietal cortex and the right temporal cortex. Visual-spatial skills allow us to visually perceive objects and the spatial relationships among them. Spatial memory can be considered a subcategory of visual memory

because it relies on a cognitive or mental map whereby an individual can acquire, code, store, recall, and decode information about the relative locations and characteristics in one's spatial environment.

These are the skills that enable us to mentally manipulate and rotate information in space by taking different perspectives. These skills also allow us to retrace our way across a busy city because we have a visual map in our memory from the last time we made the trip. Visual-spatial abilities include a wide variety of individual skills that include the recognition of brightness and darkness, identification of complex intersecting angles and curves, and the recognition of faces from the shape of eyes, noses, mouths and hair.

### **Benefits to Daily Life**

Good visual-spatial skills are needed to orient yourself in a neighborhood, to retrace your steps through a crowd, to remember landmarks, and also to be able to recognize that you are in an unfamiliar environment.

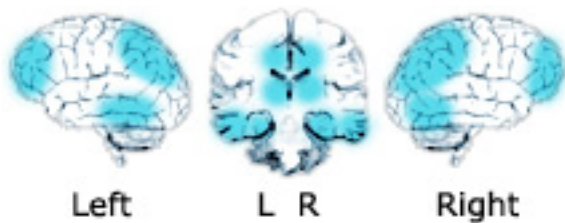
# Around the World in 80 Trips



## Game Description

Embark on a splendid tour through the most beautiful regions on earth. You are asked to memorize the itineraries of two tours that you may select from a list of destinations, including Sri Lanka, Madagascar and Brazil. Itineraries consist of the names of the places you visit and the pictures associated with those places.

## Cognitive Function Exercised



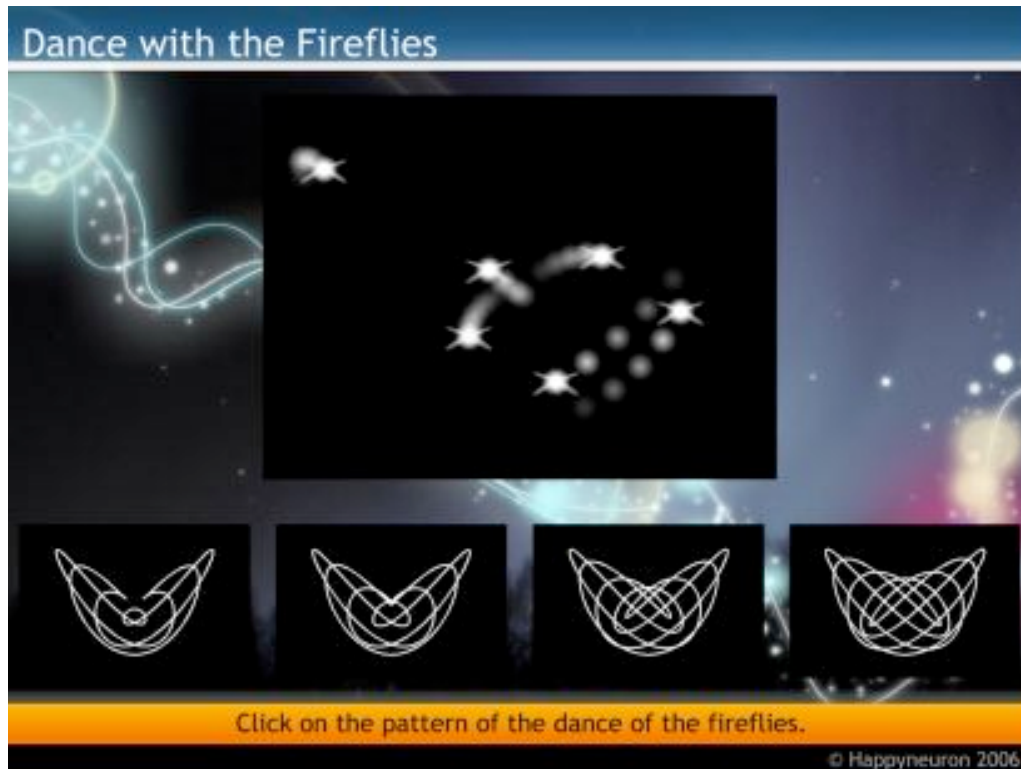
This exercise trains visual and spatial memory pertaining to environmental information. You will need good orientation and perceptual skills to succeed. Various hints are suggested that may help you improve your memorization capacities. The primary areas of the brain that are exercised in this game are the right parietal cortex and the right temporal cortex.

Visual-spatial skills allow us to visually perceive objects and the spatial relationships among them. Spatial memory can be considered a subcategory of visual memory because it relies on a cognitive or mental map whereby an individual can acquire, code, store, recall, and decode information about the relative locations and characteristics in one's spatial environment. These are the skills that enable us to mentally manipulate and rotate information in space by taking different perspectives.

## **Benefits to Daily Life**

Good visual-spatial skills are needed to orient yourself in a neighborhood or city, or to retrace your steps along a winding back road or through a forest. You also need those skills to find your car in an airport parking lot or even to estimate distances from a map. These skills are crucial to your everyday life.

## Dance with the Fireflies



### Game Description

Have you ever seen fireflies in the moonlight? Here, you will track and interpret complex patterns of movement as you watch and analyze five series of dancing fireflies. Each dance makes a pattern that you will be asked to recognize from among four different suggested trajectories. For each series, you'll have three attempts to find the correct trajectory. You may also choose between easy, medium, or complex dances and whether there are two, four or six fireflies. You can also vary the speed of the dances.

### Cognitive Function Exercised



This exercise trains your visual attention and your working memory skills as you track the trajectory of moving objects while anticipating their direction. The pre-frontal area is the portion of the brain that helps us attend and concentrate to incoming information.

Use your visual analysis skills to recognize the general shape of each firefly's dance. Concentrate on essential points (line intersections, width of trajectory, and so on) since they will help you rule out certain patterns and find the right ones. Your visual working memory will also help you keep each firefly's course in mind.

## **Benefits to Daily Life**

Training your attention and visual tracking skills will help you recognize faces and complex patterns more readily. Also, certain activities such as team sports require attention to one's teammates and opponents, driving requires attention to other vehicles and pedestrians, and occupations such as air traffic control require simultaneous attention to many moving targets.

## Entangled Objects



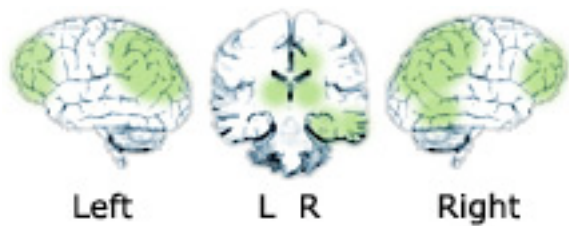
### Game Description

In this game, you see three entangled objects, like flowers, fruit, animals, geometrical figures, or amoebas, which taken together make up a more complex figure. These three entangled graphical objects are compared to a multiple choice of similar or different objects that are possible components of the complex entangled figure. You must choose the one that is part of the entangled figure.

To choose the correct object, you must mentally disentangle the complex figure into its component parts. This task is easier with identifiable objects or geometrical figures, but it is harder with abstract figures. An object seen in its typical context is more easily recognized than one that is isolated. One way to figure out the different components is to look carefully at the separate elements and then mentally visualize them together into one figure.

Identification is easier when the figures are meaningful (objects, geometrical figures), so details are more relevant than the analysis of the whole figure. However, recognition will be more difficult with abstract figures. Naturally, such a complex task takes great concentration.

### Cognitive Function Exercised



This exercise trains you to spot the identifying characteristics of an object, store them in working memory, and then transform the details into a whole by visualizing it in your mind and holding it there while accomplishing the same tasks for the other objects. The game trains your visual and spatial skills and your working memory.

### Benefits to Daily Life

When you look at something, you usually recognize it easily because you match what you see with the image stored in your long-term memory. To be able to make the match in everyday situations, we rely upon thousands of stored images, associations, and categorizations in our memory. We use these skills each time we try to separate figure from ground in a visual display, visualize ways to redecorate a room or even analyze patterns of traffic when driving.

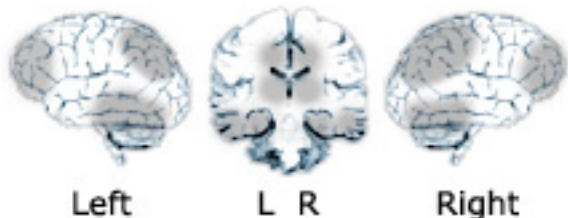
## Money Time



### Game Description

The aim of this exercise is to earn as much money as you can by drawing cards from four decks. You have to discover which deck enables you to earn the largest amounts. Be careful, the winning pile might surreptitiously change back and forth during the game! There is a strategy to this game and it's up to you to figure it out.

### Cognitive Function Exercised



This game primarily trains logical reasoning, planning, organizing, strategizing and the ability to flexibly switch among problem-solving strategies. Further, this exercise entails logical analysis and making predictions based on pattern recognition. Last, it also requires the capacity to make choices based on incomplete information and the ability to speedily formulate sound decisions.

More specifically, the executive functions located in the pre-frontal cortex provide us with foresight in devising a multi-step strategy, the capacity for quickly switching to an appropriate mental mode and the ability to withstand distractions and internal urges.

## **Benefits to Daily Life**

In everyday life, aspects of executive functioning include our ability to make plans (travel, wedding, or a surprise birthday party) and keep track of more than one thing at a time. It also involves the determination of the time it will take to complete a project or to change your mind and make mid-course corrections, all while thinking, reading and writing. As students in school, these skills allow us to finish our work on time, ask for help when needed, wait to speak until we're called on and seek more information.

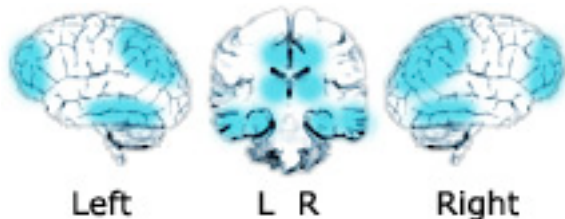
## Objects, Where are You?



### Game Description

Misplaced your keys, your cell phone and your notebook all in one day? This classic memory game that we all enjoy has such simple rules but it can get very challenging if we haven't played it for a while. This exercise consists of memorizing the location of 6, 8 or 10 pictures (abstract or figurative) on a grid, and then recalling them when asked for their match.

### Cognitive Function Exercised

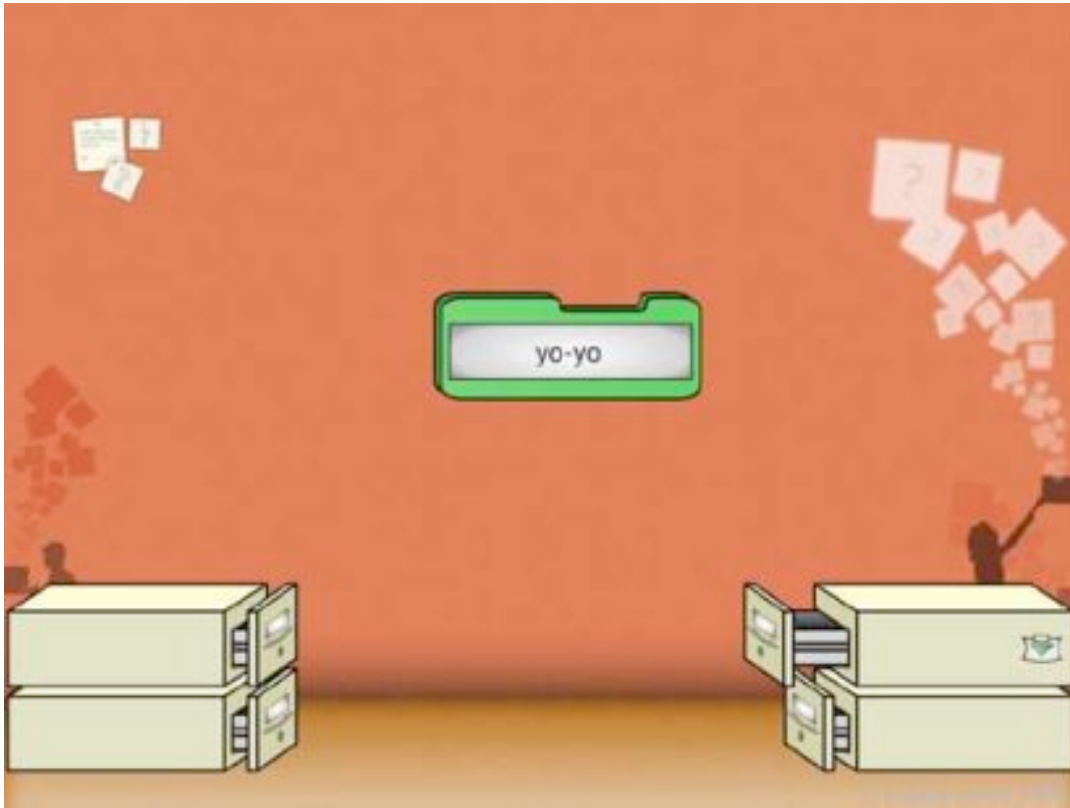


The right temporo-parietal cortex is at play in this game. This exercise is about creating associations between two types of information, an image and its location. Establishing the link with a strategy makes their memorization easier. Attention to detail, good visual-spatial orientation and visual memory are required.

## Benefits to Daily Life

If you live in a big city or ever visited one, you will notice the omnipresent street signs, store logos and all the various symbols on a map that one needs to know in order to find one's way. This game can also help you remember the location of various objects in a room.

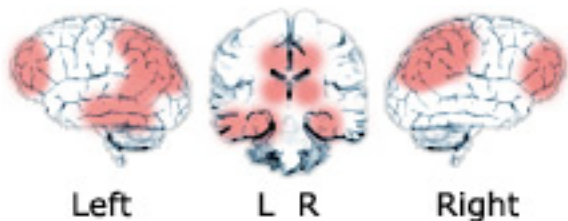
## Secret Files



### Game Description

Don't let us keep secrets from you! This game requires you to catch words before they fall to the ground and file them in the correct secret drawer. Each drawer is devoted to a category. You can choose to see each drawer's category in advance or to discover it yourself as you begin filing the words. If you catch a word and place it in the wrong drawer, it will simply disappear (much like misplaced files in real life). This means that if you choose not to know the drawers' categories, you must discover them by trial and error.

### Cognitive Function Exercised



Secret Files is a game that primarily targets attention and executive functioning, located in the pre-frontal and frontal cortex. In this exercise you will need to focus your attention, strategize, and plan ahead in order to succeed. You must also utilize your language and your working memory, localized in the left temporal lobe.

## **Benefits to Daily Life**

In everyday life, our attention skills enable us to listen carefully to what someone is saying while ignoring other conversations in the room (the cocktail party effect) or listening to a cell phone conversation while driving a car, which is definitely not recommended! Also, when we classify a list of names by category, we are able to remember much more information. We often need to remember fairly long lists, including what we need at the grocery store, what we sent to the dry cleaners' and holiday gifts.

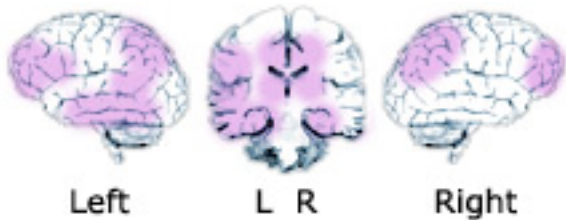
## Split Words



### Game Description

You're searching for the name of a flower. It's on the tip of your tongue. You know it starts with "am..." What is it? As quickly as possible, form complete words by combining syllables or fragments from the game table. Target words are categorized into themes and you have a choice of working with two or three syllables/fragments.

### Cognitive Function Exercised



A memory must be acquired, stored, and accessible to be successful. Although memory is achieved through multiple phases, memory retrieval is the only way a memory can be measured. The brain area exercised in this game is the left temporal lobe, which gets activated when information retrieval is called upon. This task helps you practice

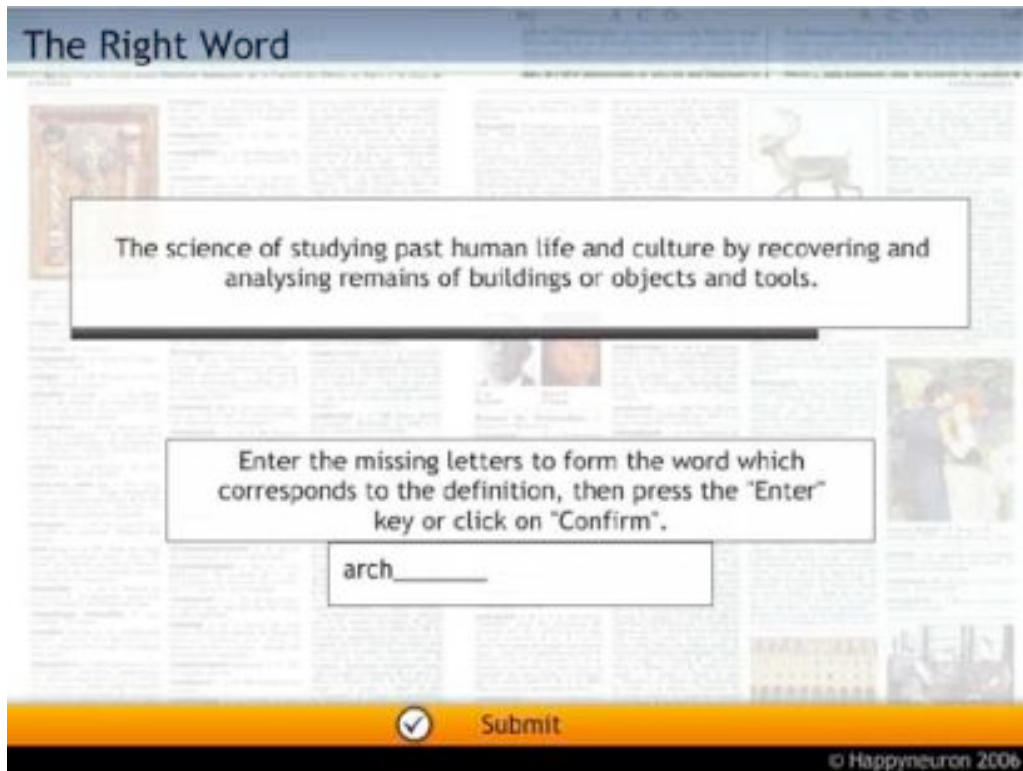
to quickly retrieve words from your language repertoire. Each syllable can be seen as a phonetic cue that facilitates word retrieval. So, think in syllables!

## Benefits to Daily Life

One of the most frequent complaints relates to something called the “tip of the tongue” phenomenon, the universal experience of trying to think of a word you know but cannot instantly retrieve. As one gets older, he or she may have more of these “tip of the tongue” experiences so it is important to address these concerns as soon as possible.

We talk to people every day and it is important to have a fluent conversation with others and to convey precisely what we mean to say. When giving a speech, teaching a class or describing a complex idea, it is important to have easy access to an extensive vocabulary. One needs to practice using his or her language; it is the key to helping memory retrieval. By reading language, producing language and thinking about language, one can strengthen connections to specific sounds and this facilitates retrieval of words.

## The Right Word



### Game Description

Train your memory and enrich your vocabulary in this increasingly challenging game where you are asked to find which words correspond to the given definitions. This is not as simple as it sounds because even if the definition reminds you of a familiar word, you may not be able to recall the word. You may also find that some of the words are unfamiliar. You are given the option to choose a version with or without a clue.

### Cognitive Function Exercised



This game trains your "memory for words," (also called "lexical memory"), your comprehension of written material, and your semantic skills. The lexical memory is located in the left tempo-parietal region and functions to help us remember the vocabulary of a language.

## **Benefits to Daily Life**

This exercise is about the retrieval of words found in our vocabulary. Everyday we need to generate familiar words and recognize words to communicate with one another. Whether you are an attorney presenting your argument in court or a pre-school teacher defining new words to young children, expressing yourself fluently and accurately is an important ability we use every day.

## The Squeaking Mouse

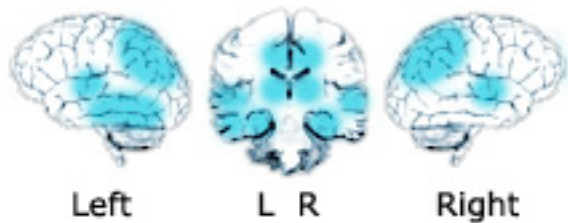


### Game Description

Strengthen your visual and auditory memory with this game. In this exercise, you are asked to match the cries, songs or noises of animals with their photographs. You will see visual images of the animals on the screen and hear a familiar call of the wild. In many cases, you will be able to match the visual image to the sound almost immediately. In other cases, you will need some time.

To help the matching process, you will hear a short sound sequence, followed by a longer sound sequence. To make it more interesting you can choose a theme (In the forest, at the farm, by the water, in Africa or around the world). You can also choose to play with 6, 8 or 10 animal sounds. It's your choice.

## Cognitive Function Exercised



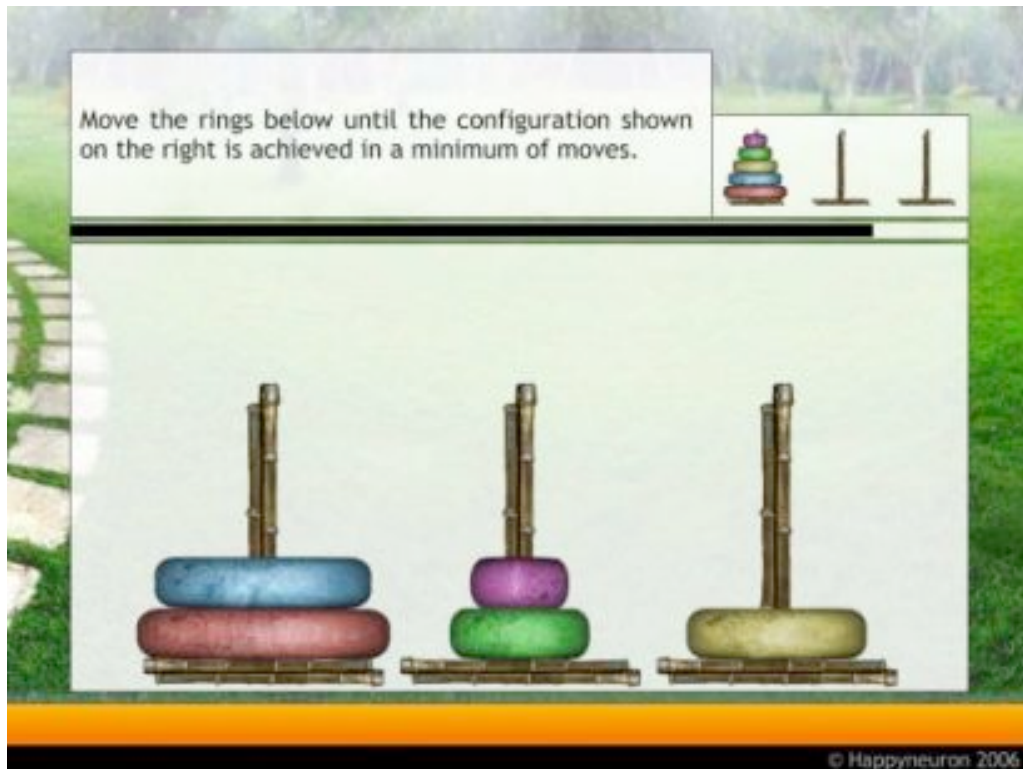
The primary areas of the brain that are exercised in this game are the auditory and visual regions located in the temporal and occipital lobes. The purpose of this game is to draw upon our working memory and long-term memory of visual and auditory characteristics of each animal, practice visual and spatial scanning of the images on the

screen, and to practice our ability to concentrate on this type of material. In some cases, deductive reasoning will be needed to choose the right match, eliminating the choices that have already been made and those that are most obviously wrong.

## Benefits to Daily Life

In an increasingly noisy world, the ability to detect meaningful sounds in the midst of general background noise becomes very important. Our ability to distinguish such sounds can become less precise as we age. For example, have you ever tried picking out a stream of conversation among other conversations in the background at a party or a convention? How about sitting on a train and trying to stay focused on one thing while masking the background noises of doors closing, horns blowing and other people's music or conversations? This game helps train the characteristics necessary to stay sharp in this area.

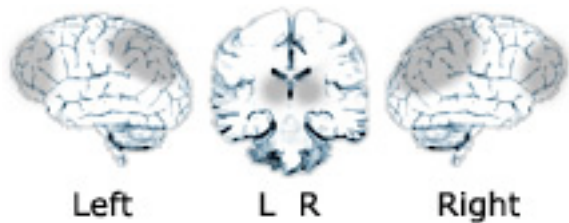
## The Towers of Hanoi



### Game Description

Before you try to figure out how the Egyptians built the pyramids, try out your problem-solving skills with this game. In this game, you must configure colored rings on a series of pegs in order to match a target. You can move the top-most ring on each peg to another peg, but you can only move one ring at a time and you can never put a larger ring on top of a smaller ring. From time to time, a given peg may not hold any rings: you may move any available ring you like on to an open space.

## Cognitive Function Exercised



This game requires problem-solving skills that call on the brain's executive functions. You must define a strategy to reach a desired outcome, calculate the right moves to reach the solution in the shortest possible time, and remember the rules of the exercise. Training in this kind of thinking is helpful as a guide to use in other problem-solving

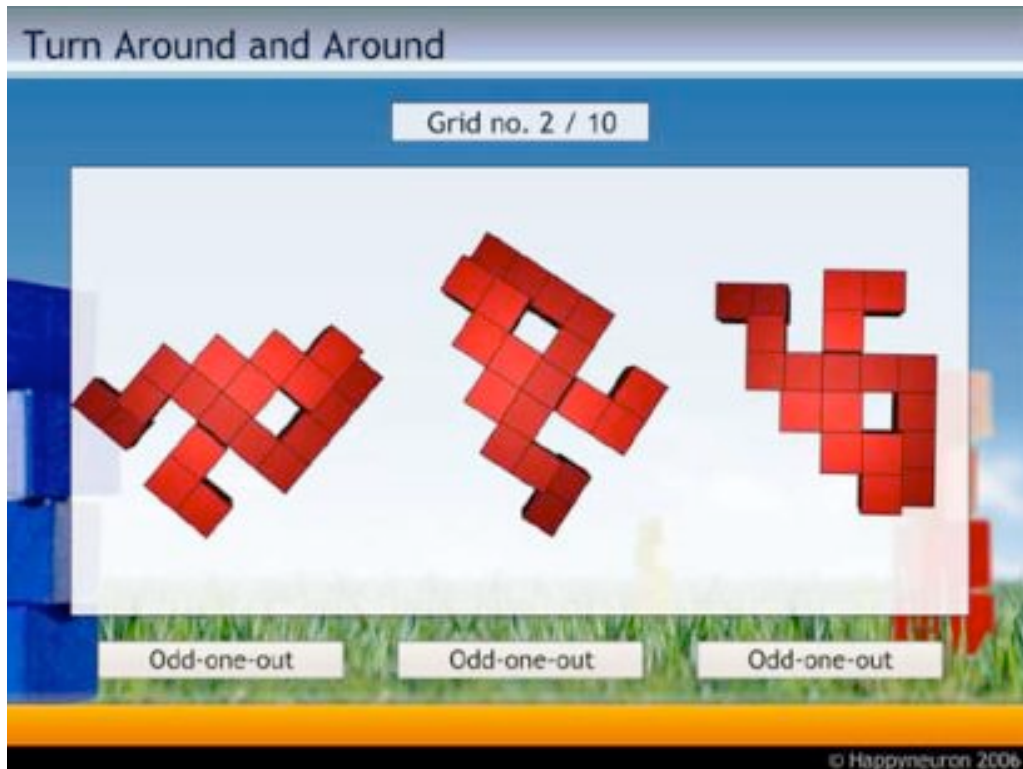
situations. The area of the brain at play is the pre-frontal cortex, the anterior portion of the frontal lobe important for the "higher cognitive functions" and the determination of personality.

## Benefits to Daily Life

You use your executive functions when managing your time, planning a presentation or a pairing menu, outlining a report or even taking care of several children simultaneously.

In every day activities, we must often develop a strategy to solve a problem. Developing the strategy involves analysis of the goal to be reached, analysis of the action steps needed, as well as any constraints that may block attainment of the goal. Along the way, we must evaluate obstacles, choose among methods for evaluating various decision paths, and compare the effects and trade-offs of each possible move. Sometimes, solutions to problems are readily available but we have to figure out a winning strategy and specific action steps ourselves.

## Turning Around and Around

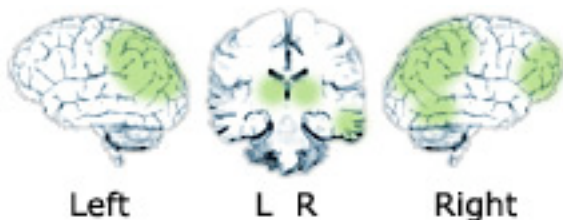


### Game Description

In this exercise you will discover if the 3-D geometrical figures presented to you from various angles are in fact the same, or a mirror image, of the object.

The exercise is designed to strengthen your powers of visual mental imagery, and more particularly, mental rotation, which we use to recognize objects seen from unusual angles.

### Cognitive Function Exercised



Mental rotation is the ability to rotate mental representations of two-dimensional and three-dimensional objects. Mental rotation usually takes place in the right cerebral hemisphere, in the areas where perception also occurs. It is associated with the rate of spatial processing and intelligence.

## Benefits to Daily Life

Mental imagery is a skill we use daily to mentally create pictures, sounds, smells, and feelings. By creating a mental image, we are able to feel and understand something, even though what we are creating is not physically there. Mental images are specific to each of us, because they are linked to our personal experiences.

There are various types of mental imagery such as visual, auditory, tactile, motor imagery, and finally olfactory mental imagery. We regularly use mental imagery in our everyday life. It plays an active part in our thoughts, in our dreams, in how we resolve problems such as mental calculations, in anticipating events as in a game of chess, in memorization of itineraries, in understanding a verbal description, in reasoning and recognizing objects presented at odd angles.