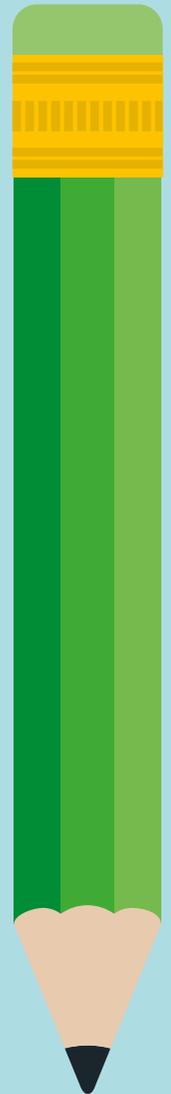
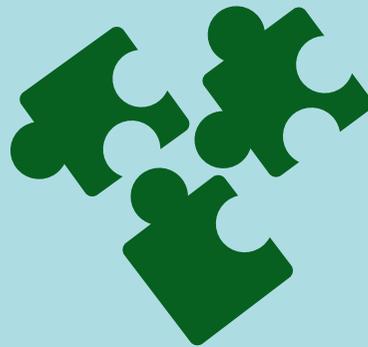
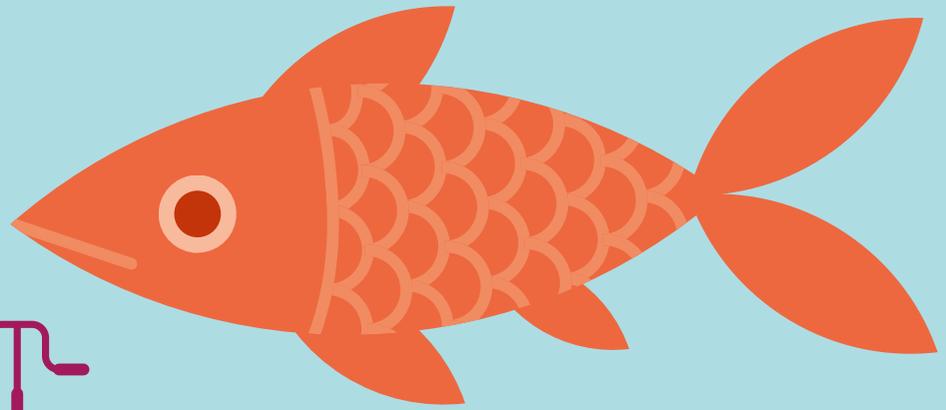


BRAIN TRAINING

the complete **visual** program



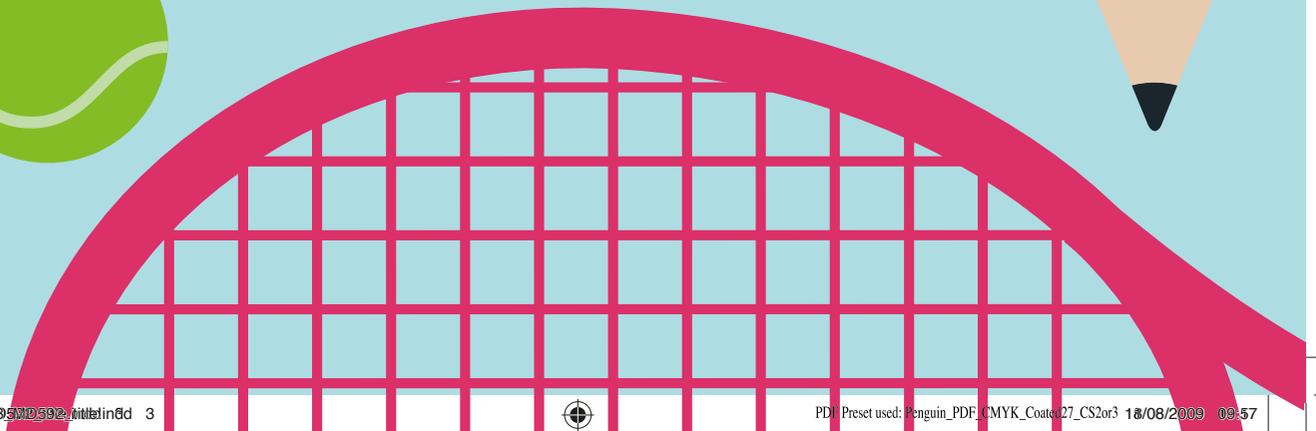


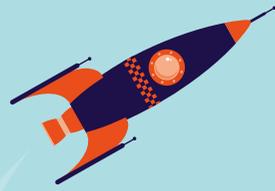


BRAIN TRAINING

the complete **visual** program

foreword by **Tony Buzan**
written by **James Harrison** and **Mike Hobbs**





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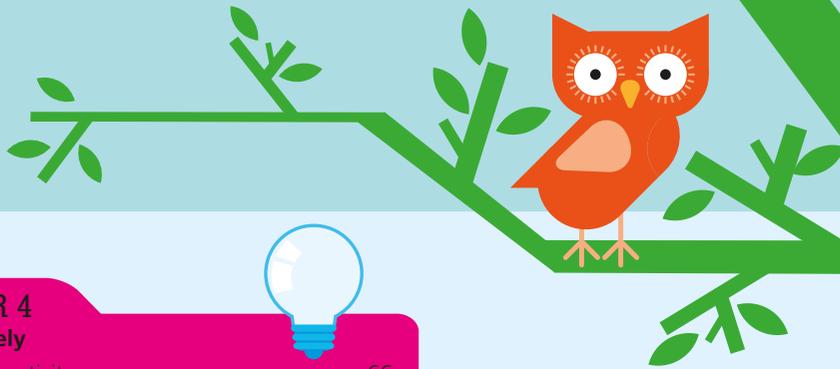
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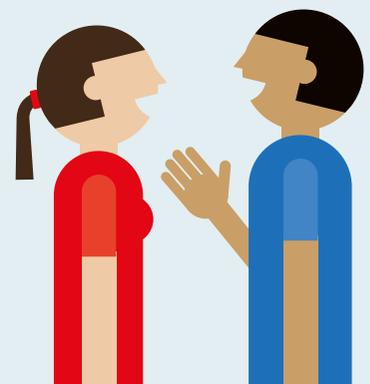
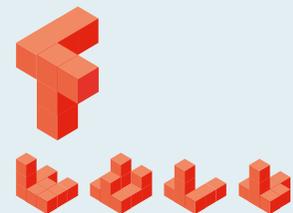
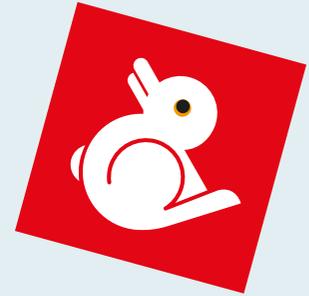
→ Foreword

It is the dream of everyone to have a brain that works better. You are holding in your hands a book that will help you make that dream come true!

Brain Training is one of the first VISUAL guides to enhancing your mental acumen. In this New Age of Intelligence, in which the human brain has to think intelligently about managing knowledge and processing the information it is bombarded with, it's vitally important that learning materials are brain-friendly. One of the reasons I was so enthusiastic about writing the foreword for *Brain Training* is that this book has everything your brain needs: it is written in the brain's own language—the "visual" language. It contains relevant images, plentiful color, excellent spatial design, clear associations, and lucid writing. It is a book about the brain that is friendly to the brain. In its physical form, the book is entirely congruent with what the brain needs.

In maximizing your brain it is also important for you to know that, for learning, the majority of people do not use their full cognitive potential. This might sound like bad news, but is actually good news. It means that you have a lot of untapped brainpower still left in the tank. All you need to do is learn how to access it! *Brain Training* will allow you to do that, by introducing you to exciting and enjoyable games and exercises that will help you maximize your intelligence.

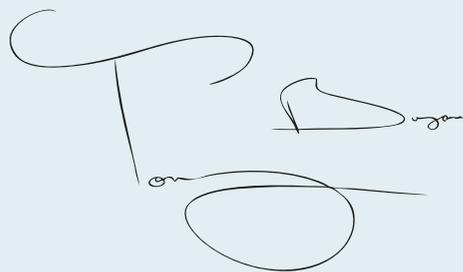
In this groundbreaking book, you will learn about your brain and its remarkable structure and capacity. You will also be enlightened about the power of your visual and imaginative processes. You will find out about your memory and its extraordinary capacities, your innate visual and creative capabilities, and your ability with numbers. The book will



offer “visual” approaches to increase your verbal reasoning and word power. There is also a chapter that addresses the vitally important relationship between your brain and your body, and in which you will learn that the ancient adage: “Healthy Body Healthy Mind, Healthy Mind Healthy Body” is true. By working through the puzzles in *Brain Training*, you will improve your focus and concentration, your memory, and your learning and creative powers. These are abilities that will significantly boost your confidence and joy in life.



By investing in the *Brain Training* program, you have invested in your own intellectual capital, and that capital is the most valuable capital in the world.



Tony Buzan,
Inventor of Mind Maps®



How to use this book

Studies show that the sense of sight is the most receptive when it comes to learning. Therefore, this program is visually led, and is filled with a diverse mix of popular cognitive exercises, which are divided into thematic chapters covering memory, visual reasoning and spatial awareness, creativity, numeracy, verbal reasoning, and the mind-body connection.

We open with a general introduction to the brain, and to the concept of intelligence and visual learning. This is followed by a range of exercises—“Where are you at?”—to gauge your current mental agility. In the subsequent chapters we concentrate on a specific brain function, such as memory or creativity. First, we explain how it works and then we offer the most effective puzzles to exercise that particular mental function.

Working through the book

The structure allows you to either work through the book from cover to cover or to pick out a specific topic—for example, memory—and work on it alone. However you choose to approach the book, we encourage you to start with the first chapter (and the “Where are you at?” exercises) and finish with the final workout in Chapter 8, so you can gauge how you have improved over time.

For the majority of exercises we have provided answer boxes for you to fill in. For the remaining exercises, we will instruct you to write your answer on a separate sheet of paper. Finally, in “The mind-body connection” chapter, we will introduce you to the type of foods, exercise, and other physical pick-me-ups that raise brain power.

Technique pages offer tips and strategies for improving brain function

14 Brain potential

Picture the brain

The brain looks a bit like a giant crinkled rubbery mushroom, with the average adult brain weighing about 3 lbs 5 oz (1.5 kg).

Your brain is divided into two hemispheres: the left and the right. These are linked by a central processing unit called the **corpus callosum**. Each half is split into four more compartments:

- At the very back is the **occipital lobe**, which handles much of your visual sense.
- Just behind each ear are the **temporal lobes**, which are involved in the organization of sound, memory, speech, and emotional responses.
- At the top of the brain are the **parietal lobes**, which handle sensations, such as touch, body awareness, pain, pressure, and body temperature. They also help you with spatial orientation.

The limbic system

Inside the ridges and grooves of each hemisphere lie a set of structures forming what is known as the limbic system. This system includes the **amygdala**, **hypothalamus**, **thalamus**, and **hippocampus**.

These parts activate our emotions, appetites, instincts, pain and pleasure sensations, and other drives that are essential to survival. The amygdala activates emotional responses, such as fear or euphoria, while the hypothalamus is the control center for brain-to-body, body-to-brain messages, causing, for example, blood pressure to rise when we are agitated. The thalamus receives auditory and visual sensory signals and relays them to the outer layer of the brain, known as the **cerebral cortex**, where the information is processed. The hippocampus is critical to learning and remembering spatial layouts. At the very back of the brain lies the **cerebellum**, which handles movement and balance and, along with the brain stem, is the part of the brain that evolved first, inherited from our primate ancestors. It keeps us alive by controlling our involuntary body functions, including breathing and digestion.

What are neurons?

Neurons are the cells in the nervous system that transmit information by electrochemical signaling. They are the core components of the brain and

The sum of its parts

Each hemisphere deals with different types of mental activity. The left side deals with logic, numbers, language, lists, and analysis—the academic activities. The right side is more visual, and deals with imagination, color, spatial awareness, pattern, recognition, and making sense of the abstract. Most people seem to have a dominant side. The crucial word here is “dominant.” It’s a natural preference, and not an absolute. What this means is that when you’re learning something new, your brain prefers to learn in a certain way. It is not so much that you are biologically right-brain or left-brain-dominated, but that generally you’re become comfortable with applying one side more than the other. The truth is that in practice you are always using both sides of the brain simply because most tasks demand it, so you shouldn’t get too hung up on this division.

36 Memory

Technique: the journey method 37

The Journey Method

The Journey Method or Method of Loci (to use its original name) is a technique for memorizing long lists of items. It has been practiced since the ancient Greek era, a time when long speeches had to be recited without recourse to notes because paper was such a luxury. The method is a type of mnemonic: link system based on memorizing items along an imagined journey or series of locations (loci) that are familiar to you. You do this by associating the object with a point in the imagined location or journey. Since the human brain thinks more readily in pictures, it

START YOUR MEMORY

Introduction: picture the brain 15

TO DO LIST

- 1 One dog medicine
- 2 Book doctor's appointment
- 3 Go to hair appointment
- 4 Pay electricity bill
- 5 Buy milk
- 6 Buy birthday card for Mom
- 7 Hang out washing
- 8 Mail letter

1 A man sat on the park bench with a dog on his lap

2 A tree in the park had been struck by lightning

3 A teacher outside the school is drawing a star on the blackboard

4 The woman at the flower stall is wearing a bright red hat

5 Mega memory: Memory experts believe that by applying the Journey Method a person with ordinary memorization capabilities, after establishing the route stop-points of their own “journey,” can use it to remember the sequence of a shuffled deck of cards with less than an hour of practice.

Fact file boxes reveal fascinating facts about the workings of the brain as well as the latest research findings

Hints and strategies

We also include techniques throughout the book, such as "The Journey Method" (see p.36) for improving memory or "The physical recharge" (see p.146) to increase mental alertness. These appear as discrete features between exercises, and come complete with an example of how and why you might use the technique. We encourage you to learn and apply these to the relevant exercises in the chapter. We might prompt you to use a specific technique to complete an exercise so that you become familiar with applying it, which is an important part of improving your brainpower. Also, try to learn the hints and tips we offer throughout the book (denoted by the lightning strike icon), as these will enhance your ability to

work with the material. There are also "fact file" boxes, which offer fascinating information about the workings of the brain.

You can use all the tips and techniques you have learned to complete the mix of exercises in the final workout (Chapter 8). You may then want to return to the start and retest yourself against the puzzles in the "Where are you at?" section to assess overall improvement.

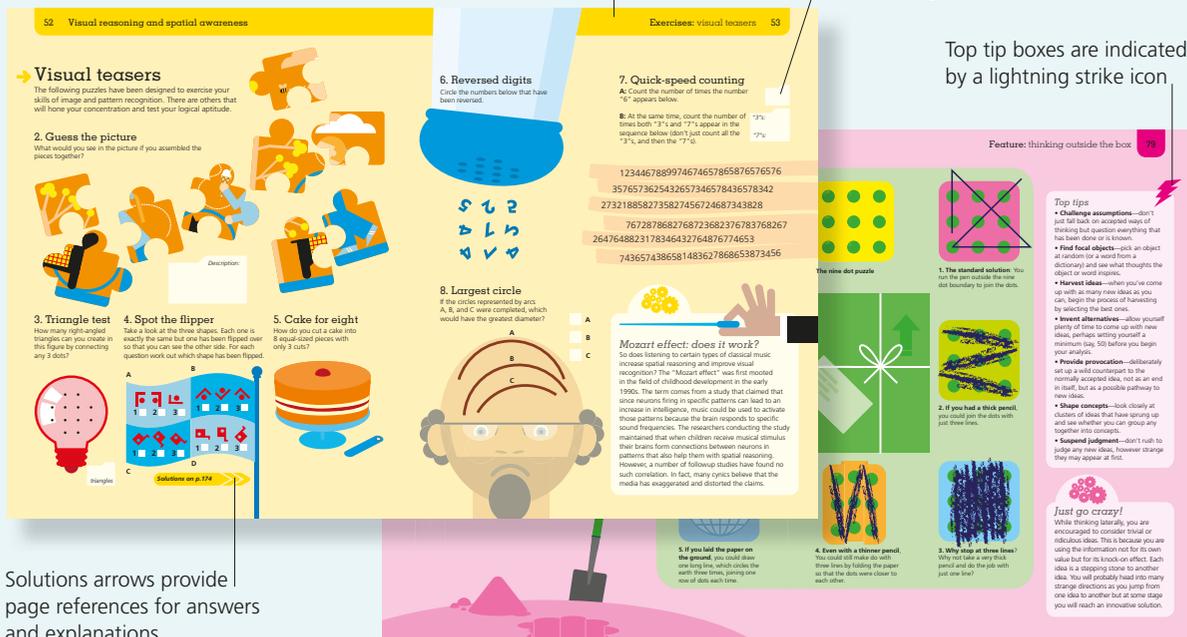
Solutions

Finally, you can find the solutions and/or explanations to the puzzles at the back of the book. Look for the solutions arrow at the foot of the page, which guides you to the specific page number.

The colored band at the top of the page indicates puzzle pages

Answer boxes to fill in as you work through the puzzles

Top tip boxes are indicated by a lightning strike icon



Solutions arrows provide page references for answers and explanations