

The Brain An Introduction To Functional Neuroanatomy

This new edition presents an authoritative account of the current state of brain biomechanics research for engineers, scientists and medical professionals. Since the first edition in 2011, this topic has unquestionably entered into the mainstream of biomechanical research. The book brings together leading scientists in the diverse fields of anatomy, neuroimaging, image-guided neurosurgery, brain injury, solid and fluid mechanics, mathematical modelling and computer simulation to paint an inclusive picture of the rapidly evolving field. Covering topics from brain anatomy and imaging to sophisticated methods of modeling brain injury and neurosurgery (including the most recent applications of biomechanics to treat epilepsy), to the cutting edge methods in analyzing cerebrospinal fluid and blood flow, this book is the comprehensive reference in the field. Experienced researchers as well as students will find this book useful. Have you ever wondered how it's possible to walk down a street, with your thoughts on what you're going to have for lunch? What's telling your legs to move while your mind is on other things? And how are you reading these words right now? The simple answer: it's your brain. By answering these questions and more, *Getting Your Head Around the Brain* is your first stop for understanding human behaviour. It provides intriguing insight into the brain's awesome abilities, and covers fascinating topics like sensation, memory and emotion. Whether you're studying for your psychology degree, or whether you just want to learn more about human behaviour, *Getting Your Head Around the Brain* is a fun-and-friendly guide to this mysterious and often misunderstood organ. Key features: * no nonsense – it's written in language that you don't need a PhD to understand; * eye-catching illustrations and cartoons; * fascinating examples throughout. Let this book guide your curiosity for the intricacies and surprises of the brain and the behaviour it produces.

An Introduction to Brain and Behavior takes uninitiated students to the frontiers of contemporary physiological psychology more effectively than any other textbook. Renowned researchers and veteran teachers, Kolb and Whishaw help students connect nervous-system activity to human behavior, drawing on the latest research and revealing case studies.

The Fourth Edition of *Brain & Behavior: An Introduction to Biological Psychology* by Bob Garrett showcases our rapidly increasing understanding of the biological foundations of behavior, engaging students immediately with easily accessible content. Bob Garrett uses colorful illustrations and thought-provoking facts while maintaining a “big-picture” approach that students will appreciate. Don't be surprised when they reach their “eureka” moment and exclaim, “Now I understand what was going on with Uncle Edgar!” “[T]he topic coverage is excellent. It is what a student taking an Introductory Biological Psychology course should walk away with.” —William Meil, Indiana University of Pennsylvania “I absolutely love this book. I think it is head and shoulders above any other.... The book is just right. I have used every edition so far and students seem to read it and grasp the concepts well. It is clearly written, well illustrated, and explains concepts in an engaging and understandable way. The text reads like it should—a wonderfully written book. It almost reads like a novel, progressing through the topics with a fluency that is rare. It's perfect for my students.” —Carol L. DeVolder, St. Ambrose University “The text is well organized and has excellent artwork

depicting complex brain functions.” —Dr. Catherine Powers Ozyurt, Bay Path College
“Excellent use of artwork, good coverage of a range of topics within each chapter.” —M. Foster Olive, Arizona State University

What makes us social animals? Why do we behave the way we do? How does the brain influence our behaviour? The brain may have initially evolved to cope with a threatening world of beasts, limited food and adverse weather, but we now use it to navigate an equally unpredictable social landscape. In *The Domesticated Brain*, renowned psychologist Bruce Hood explores the relationship between the brain and social behaviour, looking for clues as to origins and operations of the mechanisms that keep us bound together. How do our brains enable us to live together, to raise children, and to learn and pass on information and culture? Combining social psychology with neuroscience, Hood provides an essential introduction to the hidden operations of the brain, and explores what makes us who we are.

This book is intended as an inspiration and as an introduction to what Susan Hart has called neuroaffective developmental psychology. As an underlying theme throughout the book, she seeks to emphasize the importance of attachment for the formation of personality in all its diversity. This book presents a merger of systems that are not normally brought together in a structured psychodynamic context. Thus it operates on three levels: a neurobiological level, an intrapsychological level, and an interpersonal level. It also focuses on the brain structures that are essential for the formation of relationships, personality development, and emotions. It attempts to provide an understanding of the way that the uniquely human nervous system develops capacities for empathy, mentalization, and reflection that enable us to address such aspects as: past and present, interpersonal relations, ethics, art, and aesthetics. Susan Hart has endeavoured to make the text meaningful and comprehensible in order to make the topic interesting and inspiring to the reader, and to spark an interest in further studies.

Prostheses for the Brain: Introduction to Neuroprosthetics bridges the disciplines required in the field of neuroprosthetics and provides the interdisciplinary base required for understanding neuroprosthetic devices. It introduces basic aspects from the physical, bioengineering and medical perspectives, and forms a common knowledge base. It provides the entrance to the field and sets realistic expectations, both regarding potentials as well as limitations, for the devices in both design and outcomes. The book additionally reviews the technology behind the most frequently used and most clinically successful neuroprosthetic devices. It provides the physiological background for their function, as well as the technology behind them. Finally, the authors suggest future possible developments that may play crucial role in new prostheses for the brain. This gives the reader a comprehensive view on the principles and applications of neuroprostheses. This book has been built from the authors course they teach on neuroprostheses and is ideal for students, engineers and medical professionals in this field. Introduces the general principles of conductivity of electrolytes and the processes at the tissue–electrode interface Describes safety issues and regulatory rules, clarifies conceptual differences between stimulating and sensing electrodes Reviews stimulation strategies, tissue reactions, potential medical complications, brain adaptations and the clinically most successful applications of neuroprostheses

Ignite your students' excitement about behavioral neuroscience with *Brain & Behavior: An Introduction to Behavioral Neuroscience*, Fifth Edition by best-selling author Bob

Garrett and new co-author Gerald Hough. Garrett and Hough make the field accessible by inviting students to explore key theories and scientific discoveries using detailed illustrations and immersive examples as their guide. Spotlights on case studies, current events, and research findings help students make connections between the material and their own lives. A study guide, revised artwork, new animations, and an interactive eBook stimulate deep learning and critical thinking. A Complete Teaching & Learning Package Contact your rep to request a demo, answer your questions, and find the perfect combination of tools and resources below to fit your unique course needs. SAGE Premium Video Stories of Brain & Behavior and Figures Brought to Life videos bring concepts to life through original animations and easy-to-follow narrations. Watch a sample. Interactive eBook Your students save when you bundle the print version with the Interactive eBook (Bundle ISBN: 978-1-5443-1607-9), which includes access to SAGE Premium Video and other multimedia tools. Learn more. SAGE coursepacks SAGE coursepacks makes it easy to import our quality instructor and student resource content into your school's learning management system (LMS). Intuitive and simple to use, SAGE coursepacks allows you to customize course content to meet your students' needs. Learn more. SAGE edge This companion website offers both instructors and students a robust online environment with an impressive array of teaching and learning resources. Learn more. Study Guide The completely revised Study Guide offers students even more opportunities to practice and master the material. Bundle it with the core text for only \$5 more! Learn more.

This updated second edition provides the state of the art perspective of the theory, practice and application of modern non-invasive imaging methods employed in exploring the structural and functional architecture of the normal and diseased human brain. Like the successful first edition, it is written by members of the Functional Imaging Laboratory - the Wellcome Trust funded London lab that has contributed much to the development of brain imaging methods and their application in the last decade. This book should excite and intrigue anyone interested in the new facts about the brain gained from neuroimaging and also those who wish to participate in this area of brain science. * Represents an almost entirely new book from 1st edition, covering the rapid advances in methods and in understanding of how human brains are organized * Reviews major advances in cognition, perception, emotion and action * Introduces novel experimental designs and analytical techniques made possible with fMRI, including event-related designs and non-linear analysis

New edition building on the success of previous one. Retains core aim of providing an accessible introduction to behavioral neuroanatomy.

Thousands of people inquire about and buy a competitor to this book each year. Unique layout compared to the competition! Text is on the left page with illustration on facing page. A cover flap can cover the illustration's labels for easy self-testing. Up-to-date information covers the latest findings. Available now! Acknowledging the difficulty many readers have when first attempting to learn about the brain's psychological functions, the authors of A Colorful Introduction to the Human Brain have created a book that makes the fascinating world of brain psychology research accessible to readers with little or no background in neuroscience. Readers learn the material in several steps. First they read through the introduction and definitions on the left page; then they color the illustration on the facing page; and finally they use the special cover flap to conceal

the illustration labels while checking their knowledge, until they feel they have completely learned the material. Review exercises at the end of each chapter provide an opportunity for self-assessment, with answers provided at the end of the book. John Pinel, a professor of biopsychology at the University of British Columbia, is an award-winning teacher and the author of over 200 scientific articles. However, he is best known for his reader-oriented writing. His clear concise introductions to behavioral neuroscience have inspired, enthralled, and amused a generation of students and lay people.

First published in 1980. Routledge is an imprint of Taylor & Francis, an informa company.

Cognitive Science is a major new guide to the central theories and problems in the study of the mind and brain. The authors clearly explain how and why cognitive science aims to understand the brain as a computational system that manipulates representations. They identify the roots of cognitive science in Descartes - who argued that all knowledge of the external world is filtered through some sort of representation - and examine the present-day role of Artificial Intelligence, computing, psychology, linguistics and neuroscience. Throughout, the key building blocks of cognitive science are clearly illustrated: perception, memory, attention, emotion, language, control of movement, learning, understanding and other important mental phenomena. Cognitive Science: presents a clear, collaborative introduction to the subject is the first textbook to bring together all the different strands of this new science in a unified approach includes illustrations and exercises to aid the student

This custom edition is specifically published for the University of Queensland.

Fundamentals of Brain Network Analysis is a comprehensive and accessible introduction to methods for unraveling the extraordinary complexity of neuronal connectivity. From the perspective of graph theory and network science, this book introduces, motivates and explains techniques for modeling brain networks as graphs of nodes connected by edges, and covers a diverse array of measures for quantifying their topological and spatial organization. It builds intuition for key concepts and methods by illustrating how they can be practically applied in diverse areas of neuroscience, ranging from the analysis of synaptic networks in the nematode worm to the characterization of large-scale human brain networks constructed with magnetic resonance imaging. This text is ideally suited to neuroscientists wanting to develop expertise in the rapidly developing field of neural connectomics, and to physical and computational scientists wanting to understand how these quantitative methods can be used to understand brain organization. Extensively illustrated throughout by graphical representations of key mathematical concepts and their practical applications to analyses of nervous systems Comprehensively covers graph theoretical analyses of structural and functional brain networks, from microscopic to macroscopic scales, using examples based on a wide variety of experimental methods in neuroscience Designed to inform and empower scientists at all levels of experience, and from any specialist background, wanting to use modern methods of network science to understand the organization of the brain

It's a wrinkly, spongy mass the size of a cauliflower that sits in our heads and controls everything we do! Welcome to the world of the brain... What is the brain made of? How does it work? Why do we need one at all? Discover the answers to these questions and

much more in this fun, fact-packed introduction to the brain. Filled with colourful illustrations and bite-sized chunks of information, this ebook covers everything from the anatomy of the brain and nervous system to how information is collected and sent around the body. Other topics include how we learn, memory, thinking, emotions, animal brains, sleep, and even questions about the brain that are yet to be answered. With entertaining illustrated characters, clear diagrams, and fascinating photographs, children will love learning about their minds and this all-important organ. The Brain Book is an ideal introduction to the brain and nervous system. Perfect for budding young scientists, it is a great addition to any STEAM library.

The Human Brain is a single-authored, core introductory neuroscience text that describes the structure and function of the brain and nervous system. The text covers the neuroanatomy that students need, with inclusion of clinical content providing real-life application to clinical neurologic disorders. Its readability and enhanced full-color illustrations make it a favorite among both students and faculty.

Cognition, Brain, and Consciousness, Second Edition, provides students and readers with an overview of the study of the human brain and its cognitive development. It discusses brain molecules and their primary function, which is to help carry brain signals to and from the different parts of the human body. These molecules are also essential for understanding language, learning, perception, thinking, and other cognitive functions of our brain. The book also presents the tools that can be used to view the human brain through brain imaging or recording. New to this edition are Frontiers in Cognitive Neuroscience text boxes, each one focusing on a leading researcher and their topic of expertise. There is a new chapter on Genes and Molecules of Cognition; all other chapters have been thoroughly revised, based on the most recent discoveries. This text is designed for undergraduate and graduate students in Psychology, Neuroscience, and related disciplines in which cognitive neuroscience is taught. New edition of a very successful textbook Completely revised to reflect new advances, and feedback from adopters and students Includes a new chapter on Genes and Molecules of Cognition Student Solutions available at <http://www.baars-gage.com/> For Teachers: Rapid adoption and course preparation: A wide array of instructor support materials are available online including PowerPoint lecture slides, a test bank with answers, and eFlashcards on key concepts for each chapter. A textbook with an easy-to-understand thematic approach: in a way that is clear for students from a variety of academic backgrounds, the text introduces concepts such as working memory, selective attention, and social cognition. A step-by-step guide for introducing students to brain anatomy: color graphics have been carefully selected to illustrate all points and the research explained. Beautifully clear artist's drawings are used to 'build a brain' from top to bottom, simplifying the layout of the brain. For students: An easy-to-read, complete introduction to mind-brain science: all chapters begin from mind-brain functions and build a coherent picture of their brain basis. A single, widely accepted functional framework is used to capture the major phenomena. Learning Aids include a student support site with study guides and exercises, a new Mini-Atlas of the Brain and a full Glossary of technical terms and their definitions. Richly illustrated with hundreds of carefully selected color graphics to enhance understanding.

An argument that the meaning of written or auditory linguistic signals is not derived from the input but results from the brain's internal construction process. When we read a text

or listen to speech, meaning seems to be given to us instantaneously, as if it were part of the input. In *Meaning in the Brain*, Giosuè Baggio explains that this is an illusion created by the tremendous speed at which sensory systems and systems for meaning and grammar operate in the brain. Meaning, Baggio argues, is not derived from input but results from the brain's internal construction process. With this book, Baggio offers the first integrated, multilevel theory of semantics in the brain, describing how meaning is generated during language comprehension, production, and acquisition. Baggio's theory draws on recent advances in formal semantics and pragmatics, including vector-space semantics, discourse representation theory, and signaling game theory. It is designed to explain a growing body of experimental results on semantic processing that have accumulated in the absence of a unifying theory since the introduction of electrophysiology and neuroimaging methods. Baggio argues that there is evidence for the existence of three semantic systems in the brain—relational semantics, interpretive semantics, and evolutionary semantics—and he discusses each in turn, developing neural theories of meaning for all three. Moreover, in the course of his argument, Baggio addresses several long-standing issues in the neuroscience of language, including the role of compositionality as a principle of meaning construction in the brain, the role of sensory-motor processes in language comprehension, and the neural and evolutionary links among meaning, consciousness, sociality, and action.

The authors of the most cited neuroscience publication, *The Rat Brain in Stereotaxic Coordinates*, have written this introductory textbook for neuroscience students. The text is clear and concise, and offers an excellent introduction to the essential concepts of neuroscience. Based on contemporary neuroscience research rather than old-style medical school neuroanatomy

Thorough treatment of motor and sensory systems
A detailed chapter on human cerebral cortex
The neuroscience of consciousness, memory, emotion, brain injury, and mental illness
A comprehensive chapter on brain development
A summary of the techniques of brain research
A detailed glossary of neuroscience terms
Illustrated with over 130 color photographs and diagrams

This book will inspire and inform students of neuroscience. It is designed for beginning students in the health sciences, including psychology, nursing, biology, and medicine. Clearly and concisely written for easy comprehension by beginning students

Based on contemporary neuroscience research rather than the concepts of old-style medical school neuroanatomy
Thorough treatment of motor and sensory systems
A detailed chapter on human cerebral cortex
Discussion of the neuroscience of conscience, memory, cognitive function, brain injury, and mental illness
A comprehensive chapter on brain development
A summary of the techniques of brain research
A detailed glossary of neuroscience terms
Illustrated with over 100 color photographs and diagrams

Not just another standard introduction to neuroanatomy, *How the Brain Works* is an innovative and fun way to learn about the function and dysfunction of the central nervous system, as explained in nine easy-to-understand "lectures." This exciting new addition to the "How it Works" series does away with the use of exhaustive details and tedious definitions to provide an understandable and scientifically sound overview of the human brain. This book is neither an outline nor a summary, but an informal approach to the relationship between physiology and manifest behavior, including all essential elements covered in most courses. Students will find this book to be the

perfect introduction to their neuroscience courses, as well as a quick review for exam. Professionals will enjoy the way in which this complex topic is addressed in a simple and straightforward manner, and the general reader will satisfy a basic curiosity about the brain and its role within the central nervous system.

Packed full of images, case studies, reflection points, this accessibly written textbook is designed to introduce undergraduate students on social science courses to the science behind the brain.

The idea of interfacing minds with machines has long captured the human imagination. Recent advances in neuroscience and engineering are making this a reality, opening the door to restoration and augmentation of human physical and mental capabilities. Medical applications such as cochlear implants for the deaf and neurally controlled prosthetic limbs for the paralyzed are becoming almost commonplace. Brain-computer interfaces (BCIs) are also increasingly being used in security, lie detection, alertness monitoring, telepresence, gaming, education, art, and human augmentation. This introduction to the field is designed as a textbook for upper-level undergraduate and first-year graduate courses in neural engineering or brain-computer interfacing for students from a wide range of disciplines. It can also be used for self-study and as a reference by neuroscientists, computer scientists, engineers, and medical practitioners. Key features include questions and exercises in each chapter and a supporting website.

This work is an eagerly awaited account of this momentous and ongoing revolution, elaborated for the general reader by two pioneers of the field. The book takes the nonspecialist reader on a guided tour through the exciting new discoveries, pointing out along the way how old psychodynamic concepts are being forged into a new scientific framework for understanding subjective experience – in health and disease.

The Brain: A Very Short Introduction Oxford University Press

Considering how computational properties of the brain inform cognitive functions, this book presents a unique conceptual introduction to cognitive neuroscience. This essential guide explores the complex relationship between the mind and the brain, building upon the authors' extensive research in neural information processing and cognitive neuroscience to provide a comprehensive overview of the field. Rather than providing detailed descriptions of different cognitive processes, *Functions of the Brain: A Conceptual Approach to Cognitive Neuroscience* focuses on how the brain functions using specific processes. Beginning with a brief history of early cognitive neuroscience research, Kok goes on to discuss how information is represented and processed in the brain before considering the underlying functional organization of larger-scale brain networks involved in human cognition. The second half of the book addresses the architecture of important overlapping areas of cognition, including attention and consciousness, perception and action, and memory and emotion. This book is essential reading for upper-level undergraduates studying Cognitive Neuroscience, particularly those taking a more conceptual approach to the topic.

Present day neuroscience places the brain at the centre of study. But what if researchers viewed the brain not as the foundation of life, rather as a mediating organ? *Ecology of the Brain* addresses this very question. It considers the human body as a collective, a living being which uses the brain to mediate interactions. Those interactions may be both within the human body and between the human body and its environment. Within this framework, the mind is seen not as a product of the brain but as an activity of the living being; an activity which integrates the brain within the everyday functions of the human body. Going further, Fuchs reformulates the traditional mind-brain problem, presenting it as a dual aspect of the living

being: the lived body and the subjective body - the living body and the objective body. The processes of living and experiencing life, Fuchs argues, are in fact inextricably linked; it is not the brain, but the human being who feels, thinks and acts. For students and academics, *Ecology of the Brain* will be of interest to those studying or researching theory of mind, social and cultural interaction, psychiatry, and psychotherapy.

This is a non-technical introduction to the main issues and findings in current brain research. It gives a sense of how neuroscience addresses questions about the relationship between the brain, and thought, memories, perceptions, and actions. Covering the details of brain science in an accessible style, it includes up to date coverage of developments of brain research, and suggests directions future research might take. The *Brain* also integrates discussion of the more familiar implications of the brain's actions, such as memories, perceptions, and motor control. Contents: Mind and brain: what's the problem? Let's get physical Sight, sound, and imagination Last week's potatoes! Perception to action Altered states of mind Where do we go from here?

This is an in-depth introduction to neurology for ages 8-14. The first 96 pages are a student text broken into 10 chapters. Each chapter has two levels so that students of varying ages, abilities, and interest levels can use the same curriculum. Topics covered are brain anatomy (including inner brain and ventricles), left/right brain, neuron anatomy and physiology (including types of glial cells), neuronal networks, memory, learning, peripheral nervous system, autonomic systems, senses, reflexes, blood-brain barrier, sleep, brain disorders and famous doctors and patients. The text is high-content but easy to understand. (Cartoon characters in the margins add plenty of humor, too) At the end of each chapter there are some activities such as word puzzles, review questions, coloring activities and suggestions for supplemental videos (via a special channel on YouTube). The 40-page teacher section gives instructions for activities such as board games, active group games, crafts, and labs. Ideal for use in a group (because of so many game suggestions) but also great for home use as well.

Basic concepts and case studies from an emerging field that investigates human capacities and pathologies at the intersection of brain and culture. The brain and the nervous system are our most cultural organs. Our nervous system is especially immature at birth, our brain disproportionately small in relation to its adult size and open to cultural sculpting at multiple levels. Recognizing this, the new field of neuroanthropology places the brain at the center of discussions about human nature and culture. Anthropology offers brain science more robust accounts of enculturation to explain observable difference in brain function; neuroscience offers anthropology evidence of neuroplasticity's role in social and cultural dynamics. This book provides a foundational text for neuroanthropology, offering basic concepts and case studies at the intersection of brain and culture. After an overview of the field and background information on recent research in biology, a series of case studies demonstrate neuroanthropology in practice. Contributors first focus on capabilities and skills—including memory in medical practice, skill acquisition in martial arts, and the role of humor in coping with breast cancer treatment and recovery—then report on problems and pathologies that range from post-traumatic stress disorder among veterans to smoking as a part of college social life.

Contributors Mauro C. Balieiro, Kathryn Bouskill, Rachel S. Brezis, Benjamin Campbell, Greg Downey, José Ernesto dos Santos, William W. Dressler, Erin P. Finley, Agustín Fuentes, M. Cameron Hay, Daniel H. Lende, Katherine C. MacKinnon, Katja Pettinen, Peter G. Stromberg

An examination of what makes us human and unique among all creatures—our brains. No reader curious about our “little grey cells” will want to pass up Harvard neuroscientist John E. Dowling's brief introduction to the brain. In this up-to-date revision of his 1998 book *Creating Mind*, Dowling conveys the essence and vitality of the field of neuroscience—examining the progress we've made in understanding how brains work, and shedding light on discoveries having to do with aging, mental illness, and brain health. The first half of the book provides the

nuts-and-bolts necessary for an up-to-date understanding of the brain. Covering the general organization of the brain, early chapters explain how cells communicate with one another to enable us to experience the world. The rest of the book touches on higher-level concepts such as vision, perception, language, memory, emotion, and consciousness. Beautifully illustrated and lucidly written, this introduction elegantly reveals the beauty of the organ that makes us uniquely human.

Drawing on their extensive experience in teaching and research, the authors explore the biological basis of behaviour, whilst emphasising clinical aspects of neuroscience and reinforcing its relationship to the human experience.

'This is the story of how your life shapes your brain, and how your brain shapes your life.' Join renowned neuroscientist David Eagleman on a whistle-stop tour of the inner cosmos. It's a journey that will take you into the world of extreme sports, criminal justice, genocide, brain surgery, robotics, and the search for immortality. On the way, amidst the infinitely dense tangle of brain cells and their trillions of connections, something emerges that you might not have expected to see: you. Human beings are primates, and primates are political animals. Our brains, therefore, are designed not just to hunt and gather, but also to help us get ahead socially, often via deception and self-deception. But while we may be self-interested schemers, we benefit by pretending otherwise. The less we know about our own ugly motives, the better - and thus we don't like to talk or even think about the extent of our selfishness. This is "the elephant in the brain." Such an introspective taboo makes it hard for us to think clearly about our nature and the explanations for our behavior. The aim of this book, then, is to confront our hidden motives directly - to track down the darker, unexamined corners of our psyches and blast them with floodlights. Then, once everything is clearly visible, we can work to better understand ourselves: Why do we laugh? Why are artists sexy? Why do we brag about travel? Why do we prefer to speak rather than listen? Our unconscious motives drive more than just our private behavior; they also infect our venerated social institutions such as Art, School, Charity, Medicine, Politics, and Religion. In fact, these institutions are in many ways designed to accommodate our hidden motives, to serve covert agendas alongside their "official" ones. The existence of big hidden motives can upend the usual political debates, leading one to question the legitimacy of these social institutions, and of standard policies designed to favor or discourage them. You won't see yourself - or the world - the same after confronting the elephant in the brain.

Are men's and women's brains really different? Why are teenagers impulsive and rebellious? And will it soon be possible to link our brains together via the Cloud? Drawing on the latest neuroscience research, this visual guide makes the hidden workings of the human brain simple to understand. How the Brain Works begins with an introduction to the brain's anatomy, showing you how to tell your motor cortex from your mirror neurons. It moves on to function, explaining how the brain works constantly and unnoticed to regulate heartbeat and breathing, and how it collects information to produce the experiences of sight, sound, smell, taste, and

touch. The chapters that follow cover memory and learning, consciousness and personality, and emotions and communication. There's also a guide to the brain's disorders, including physical problems, such as tumours and strokes, and psychological and functional disorders, ranging from autism to schizophrenia. Illustrated with bold graphics and step-by-step artworks, and peppered with bite-sized factoids and question-and-answer features, this is the perfect introduction to the fascinating world of the human brain.

Developed for those with no prior exposure to the field, this primer is an authoritative yet accessible introduction to the brain and its functions. Written by a leading neuroscientist, Thompson provides a basic overview of brain anatomy and physiology from molecules to the mind in a concise, readable format which sparkles with the author's hands on experience with brain research. Copyright © Libri GmbH. All rights reserved.

[Copyright: 6752f08c27fbe006c711e2fd660093fa](#)