

make it stick the science of successful learning

make it stick the science of successful learning is a groundbreaking concept that explores how people can enhance their learning efficiency using scientifically backed strategies. This article provides a comprehensive overview of the core principles found in the best-selling book "Make It Stick: The Science of Successful Learning" and discusses how learners of all ages can apply these techniques to achieve long-lasting results. Readers will discover the myths about learning, the importance of retrieval practice, the role of spaced repetition, and the impact of mindset on mastering new skills. Whether you are a student, educator, or lifelong learner, understanding the science behind successful learning can transform your approach to acquiring knowledge. This guide highlights practical tips, expert insights, and evidence-based methods, ensuring your learning experiences truly "stick." Continue reading to uncover actionable strategies and a deeper understanding of how learning works.

- Understanding the Science of Successful Learning
- The Myths and Realities of Effective Learning
- Key Principles from "Make It Stick"
- Techniques That Make Learning Stick
- Applying the Science of Learning in Daily Life
- The Role of Mindset and Motivation
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Understanding the Science of Successful Learning

The concept of "make it stick the science of successful learning" is rooted in cognitive psychology and neuroscience. Modern research reveals that traditional strategies like rereading and passive review are less effective than active learning approaches. The science of learning investigates how memory works, how information is encoded, and the processes that strengthen long-term retention. By understanding these mechanisms, learners can adopt practices that optimize knowledge retention and application. The book "Make It Stick" synthesizes decades of research, offering practical advice for students, teachers, and professionals seeking to learn smarter, not harder.

Why Scientific Learning Matters

Scientific learning techniques are essential because they align with how the brain naturally acquires

and stores information. Employing evidence-based methods increases efficiency and reduces wasted effort. Learners can achieve deeper understanding, better recall, and greater adaptability by following the principles recommended by cognitive scientists.

The Myths and Realities of Effective Learning

Many people hold misconceptions about what constitutes effective learning. The book "Make It Stick" dispels these myths and replaces them with proven strategies that foster successful learning outcomes. Understanding these differences is critical for anyone seeking to improve their acquisition of knowledge.

Common Learning Myths

- Rereading material leads to better memory.
- Highlighting and underlining are highly effective.
- Learning styles (visual, auditory, kinesthetic) determine success.
- Intelligence is fixed and cannot be improved.

The Realities Supported by Science

Research shows that passive techniques like rereading and highlighting offer limited benefits. Instead, active engagement—such as self-testing and connecting new knowledge to existing frameworks—results in stronger, longer-lasting learning. Additionally, intelligence is not fixed; growth mindset and deliberate practice can significantly enhance abilities over time.

Key Principles from "Make It Stick"

"Make It Stick: The Science of Successful Learning" identifies several core principles that underpin effective learning. These principles are supported by empirical studies and have been validated across diverse contexts.

Retrieval Practice

Retrieval practice involves actively recalling information from memory rather than simply reviewing notes. This technique strengthens neural pathways and improves long-term retention. Self-quizzing,

flashcards, and teaching others are common retrieval methods.

Spaced Repetition

Spacing out study sessions over time—rather than cramming—enhances memory consolidation. Spaced repetition leverages the brain's tendency to forget and then relearn, resulting in more durable knowledge.

Interleaving Practice

Interleaving mixes different topics or skills during study sessions. This approach encourages learners to differentiate between concepts and apply knowledge flexibly, leading to higher mastery and adaptability.

Elaboration

Elaboration involves explaining and expanding on what you learn, making connections to prior knowledge and real-life examples. This deepens understanding and increases the likelihood that information will be retained.

Techniques That Make Learning Stick

Applying the principles of "make it stick the science of successful learning" requires adopting practical techniques that foster active engagement and ongoing improvement. These strategies can be used by learners in any field to enhance results.

Active Learning Strategies

- Summarizing material in your own words
- Self-testing through flashcards or practice questions
- Teaching concepts to others
- Creating mind maps to visualize relationships

Incorporating Spaced and Interleaved Practice

Schedule study sessions over days or weeks and alternate between subjects. Use apps or calendars to track progress and ensure consistent review. Interleaving topics disrupts rote memorization and nurtures deeper understanding.

Utilizing Feedback and Reflection

Seek feedback from peers, mentors, or instructors to identify strengths and areas for improvement. Reflect on learning experiences by journaling or discussing challenges. Feedback helps adjust strategies for optimal results.

Applying the Science of Learning in Daily Life

Successful learning is not limited to academic settings; it applies to professional development, hobbies, and daily tasks. By integrating the science of learning into everyday routines, individuals can continuously grow and adapt to new challenges.

Practical Applications

- Learning new languages or skills
- Preparing for certifications or exams
- Mastering workplace procedures
- Adopting healthy habits and routines

Building a Personal Learning System

Develop a learning plan that incorporates retrieval practice, spaced repetition, and regular reflection. Adjust techniques based on feedback and outcomes, and maintain curiosity to fuel ongoing improvement.

The Role of Mindset and Motivation

Mindset and motivation are critical drivers behind successful learning. The science of "make it stick" emphasizes the importance of maintaining a growth mindset—believing that abilities can be

developed through effort and persistence.

Growth Mindset and Resilience

Learners with a growth mindset view challenges as opportunities for growth. They persist through setbacks and seek new strategies when faced with difficulties. This attitude fosters resilience and long-term achievement.

Setting Goals and Tracking Progress

Establish clear, achievable learning goals and monitor progress regularly. Breaking down tasks into smaller steps and celebrating incremental successes increases motivation and commitment to learning.

Frequently Asked Questions About Successful Learning

Below are answers to common questions about "make it stick the science of successful learning" and how to apply its principles for lasting results.

Q: What is the main concept behind "make it stick the science of successful learning"?

A: The main concept is that learning is most effective when it involves active engagement, retrieval practice, spaced repetition, and a growth mindset, rather than passive review or rote memorization.

Q: Why is retrieval practice more effective than rereading?

A: Retrieval practice requires learners to recall information from memory, strengthening neural pathways and creating deeper, long-lasting retention compared to mere exposure during rereading.

Q: How does spaced repetition improve memory?

A: Spaced repetition involves reviewing material at intervals over time, allowing the brain to forget and relearn, which significantly enhances long-term retention and reduces forgetting.

Q: Can anyone improve their learning abilities?

A: Yes, research supports that abilities can be developed with the right strategies and mindset. Growth mindset and deliberate practice play crucial roles in skill acquisition for all individuals.

Q: What are some practical ways to apply "make it stick" principles?

A: Practical ways include self-testing, teaching others, mixing subjects during study sessions, scheduling reviews over time, and reflecting on learning experiences to adjust methods.

Q: Are learning styles important for successful learning?

A: While preferences exist, scientific evidence shows that tailoring instruction to "learning styles" does not significantly enhance outcomes. Active, evidence-based strategies are more effective.

Q: How do I set effective learning goals?

A: Set specific, measurable, attainable, relevant, and time-bound (SMART) goals. Regularly monitor progress and adjust strategies as needed to ensure continuous improvement.

Q: What role does feedback play in learning?

A: Feedback helps learners identify strengths and weaknesses, guiding adjustments to strategies and reinforcing successful habits for better outcomes.

Q: Can "make it stick" methods be used outside of school?

A: Absolutely. These methods are applicable to professional development, acquiring new skills, hobbies, and everyday life tasks requiring mastery and retention.

Q: How can teachers implement "make it stick" in the classroom?

A: Teachers can encourage active participation, incorporate retrieval practice, use spaced and interleaved assignments, and foster growth mindset to help students achieve lasting success.

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Make It Stick: The Science of Successful Learning

Have you ever poured hours into studying, only to feel like the information vanished as quickly as it arrived? You're not alone. Many struggle with effective learning, wasting precious time and effort. This blog post dives into the science behind successful learning, drawing from the principles outlined in the book "Make It Stick: The Science of Successful Learning," to equip you with practical strategies for retaining information and mastering new skills. We'll explore the myths of learning, reveal effective techniques, and provide actionable steps you can implement immediately to transform your study habits and achieve lasting knowledge.

Debunking Learning Myths: What Doesn't Work

Before we delve into effective strategies, let's address some common misconceptions that hinder learning:

Myth 1: More is Always Better (Repetition without Reflection)

Simply rereading notes or passively listening to lectures isn't enough. Our brains need active engagement to consolidate information. Repeated exposure without active recall and processing only creates a false sense of mastery.

Myth 2: The Illusion of Fluency (Feeling Familiar, Not Understanding)

Feeling comfortable with material doesn't equate to understanding it. Often, familiarity breeds a false sense of confidence. True mastery requires struggling with the material, identifying weaknesses, and actively seeking clarification.

Myth 3: Passive Learning is Sufficient

Highlighting, underlining, and summarizing passively don't promote deep processing. These techniques might feel productive, but they lack the active retrieval and application necessary for long-term retention.

The Science-Backed Strategies for Successful Learning

"Make It Stick" highlights several key principles for effective learning:

1. Retrieval Practice: Test Yourself Regularly

Actively recalling information strengthens memory traces. Regular self-testing, using flashcards, practice questions, or even teaching the material to someone else, proves far more effective than passively rereading.

2. Interleaving: Mix Up Your Study Topics

Instead of focusing on one topic extensively before moving to another, interleave your studies. This forces your brain to discriminate between concepts and strengthens your ability to retrieve information from long-term memory.

3. Elaboration: Connect New Knowledge to Existing Knowledge

Relate new information to what you already know. Create analogies, metaphors, and personal connections to build a richer understanding and improve memory.

4. Dual Coding: Use Multiple Senses

Engage multiple senses while learning. Combine visual aids (diagrams, images) with verbal explanations, creating multiple pathways for information to be processed and remembered.

5. Spacing: Distribute Your Study Sessions

Spaced repetition is crucial. Instead of cramming, distribute your study sessions over time. This improves long-term retention and reduces the likelihood of forgetting.

6. Metacognition: Reflect on Your Learning Process

Become aware of your learning style and identify your strengths and weaknesses. Regularly assess your understanding, identify knowledge gaps, and adjust your strategies accordingly. This self-awareness is key to effective and efficient learning.

Overcoming Learning Challenges: Practical Tips

Applying these principles can be challenging. Here are some practical tips to help you overcome obstacles:

Create a study schedule: Plan your study sessions in advance, incorporating spacing and interleaving techniques.

Use active recall techniques: Employ flashcards, practice questions, and self-testing regularly.

Seek feedback: Discuss your understanding with others, and seek clarification when needed.

Embrace struggle: Don't shy away from challenging material; it's where the real learning happens.

Be patient and persistent: Learning takes time and effort. Don't get discouraged by setbacks.

Conclusion

Mastering the science of successful learning requires a shift from passive to active engagement. By incorporating retrieval practice, interleaving, elaboration, dual coding, spacing, and metacognition into your study habits, you can significantly improve your ability to retain information, master new skills, and achieve lasting knowledge. Embrace the struggle, reflect on your learning process, and watch your learning potential soar. Remember, it's not about how much you study, but how effectively you study. Apply these principles, and you'll be well on your way to making your learning truly stick.

FAQs

1. How can I overcome procrastination when studying? Break down large tasks into smaller, manageable chunks. Set realistic goals and reward yourself for achieving milestones. Use a timer (Pomodoro Technique) to maintain focus and avoid burnout.
2. What if I struggle with a particular subject? Identify the specific areas you're struggling with and seek additional help. Consult your teacher, tutor, or utilize online resources to clarify concepts and

fill knowledge gaps.

3. Is there a "best" learning style? While individuals may have preferences, there's no single "best" learning style. The most effective approach involves utilizing a combination of techniques that cater to your individual strengths and address your weaknesses.

4. How long should my study sessions be? Optimal study session lengths vary depending on individual preferences and concentration levels. However, shorter, focused sessions with breaks are generally more effective than long, uninterrupted periods of study. Experiment to find what works best for you.

5. How can I apply "Make it Stick" principles to learning a new skill, like playing the guitar? Practice regularly, focusing on specific techniques (interleaving). Break down complex techniques into smaller parts (spaced repetition). Seek feedback from a teacher or experienced player (metacognition). Record yourself playing and review (retrieval practice). The key is consistent, focused practice and active feedback.

make it stick the science of successful learning: Make It Stick Peter C. Brown, Henry L. Roediger III, Mark A. McDaniel, 2014-04-14 To most of us, learning something the hard way implies wasted time and effort. Good teaching, we believe, should be creatively tailored to the different learning styles of students and should use strategies that make learning easier. Make It Stick turns fashionable ideas like these on their head. Drawing on recent discoveries in cognitive psychology and other disciplines, the authors offer concrete techniques for becoming more productive learners. Memory plays a central role in our ability to carry out complex cognitive tasks, such as applying knowledge to problems never before encountered and drawing inferences from facts already known. New insights into how memory is encoded, consolidated, and later retrieved have led to a better understanding of how we learn. Grappling with the impediments that make learning challenging leads both to more complex mastery and better retention of what was learned. Many common study habits and practice routines turn out to be counterproductive. Underlining and highlighting, rereading, cramming, and single-minded repetition of new skills create the illusion of mastery, but gains fade quickly. More complex and durable learning come from self-testing, introducing certain difficulties in practice, waiting to re-study new material until a little forgetting has set in, and interleaving the practice of one skill or topic with another. Speaking most urgently to students, teachers, trainers, and athletes, Make It Stick will appeal to all those interested in the challenge of lifelong learning and self-improvement.

make it stick the science of successful learning: Powerful Teaching Pooja K. Agarwal, Patrice M. Bain, 2024-11-13 Unleash powerful teaching and the science of learning in your classroom Powerful Teaching: Unleash the Science of Learning empowers educators to harness rigorous research on how students learn and unleash it in their classrooms. In this book, cognitive scientist Pooja K. Agarwal, Ph.D., and veteran K-12 teacher Patrice M. Bain, Ed.S., decipher cognitive science research and illustrate ways to successfully apply the science of learning in classrooms settings. This practical resource is filled with evidence-based strategies that are easily implemented in less than a minute—without additional prepping, grading, or funding! Research demonstrates that these powerful strategies raise student achievement by a letter grade or more; boost learning for diverse students, grade levels, and subject areas; and enhance students' higher order learning and transfer of knowledge beyond the classroom. Drawing on a fifteen-year scientist-teacher collaboration, more than 100 years of research on learning, and rich experiences from educators in K-12 and higher education, the authors present highly accessible step-by-step guidance on how to transform teaching with four essential strategies: Retrieval practice, spacing, interleaving, and feedback-driven metacognition. With Powerful Teaching, you will: Develop a deep

understanding of powerful teaching strategies based on the science of learning Gain insight from real-world examples of how evidence-based strategies are being implemented in a variety of academic settings Think critically about your current teaching practices from a research-based perspective Develop tools to share the science of learning with students and parents, ensuring success inside and outside the classroom Powerful Teaching: Unleash the Science of Learning is an indispensable resource for educators who want to take their instruction to the next level. Equipped with scientific knowledge and evidence-based tools, turn your teaching into powerful teaching and unleash student learning in your classroom.

make it stick the science of successful learning: Gilmore Girls: The Official Cookbook

Elena Craig, Kristen Mulrooney, 2022-05-10 Gilmore Girls: The Official Cookbook features dishes from every corner of Stars Hollow and beyond, including the Dragonfly Inn, Weston's Bakery, Al's Pancake World, Luke's Diner, and Emily and Richard's dinner table. Fans will delight in recreating iconic dishes from the beloved series, such as Sookie's Risotto, Mrs. Kim's Flaxseed Muffins, Luke's Cheeseburger and Fries, and, of course, the perfect cup of coffee! This official cookbook also includes clever cooking tips from Sookie, hosting tips from Michel, etiquette tips from Emily Gilmore, and the wisdom from Lorelai and Rory for cooking fast and talking faster--

make it stick the science of successful learning: Understanding How We Learn

Yana Weinstein, Megan Sumeracki, Oliver Caviglioli, 2018-08-22 Educational practice does not, for the most part, rely on research findings. Instead, there's a preference for relying on our intuitions about what's best for learning. But relying on intuition may be a bad idea for teachers and learners alike. This accessible guide helps teachers to integrate effective, research-backed strategies for learning into their classroom practice. The book explores exactly what constitutes good evidence for effective learning and teaching strategies, how to make evidence-based judgments instead of relying on intuition, and how to apply findings from cognitive psychology directly to the classroom. Including real-life examples and case studies, FAQs, and a wealth of engaging illustrations to explain complex concepts and emphasize key points, the book is divided into four parts: Evidence-based education and the science of learning Basics of human cognitive processes Strategies for effective learning Tips for students, teachers, and parents. Written by The Learning Scientists and fully illustrated by Oliver Caviglioli, Understanding How We Learn is a rejuvenating and fresh examination of cognitive psychology's application to education. This is an essential read for all teachers and educational practitioners, designed to convey the concepts of research to the reality of a teacher's classroom.

make it stick the science of successful learning: How We Learn

Benedict Carey, 2014-09-09 In the tradition of The Power of Habit and Thinking, Fast and Slow comes a practical, playful, and endlessly fascinating guide to what we really know about learning and memory today—and how we can apply it to our own lives. From an early age, it is drilled into our heads: Restlessness, distraction, and ignorance are the enemies of success. We're told that learning is all self-discipline, that we must confine ourselves to designated study areas, turn off the music, and maintain a strict ritual if we want to ace that test, memorize that presentation, or nail that piano recital. But what if almost everything we were told about learning is wrong? And what if there was a way to achieve more with less effort? In How We Learn, award-winning science reporter Benedict Carey sifts through decades of education research and landmark studies to uncover the truth about how our brains absorb and retain information. What he discovers is that, from the moment we are born, we are all learning quickly, efficiently, and automatically; but in our zeal to systematize the process we have ignored valuable, naturally enjoyable learning tools like forgetting, sleeping, and daydreaming. Is a dedicated desk in a quiet room really the best way to study? Can altering your routine improve your recall? Are there times when distraction is good? Is repetition necessary? Carey's search for answers to these questions yields a wealth of strategies that make learning more a part of our everyday lives—and less of a chore. By road testing many of the counterintuitive techniques described in this book, Carey shows how we can flex the neural muscles that make deep learning possible. Along the way he reveals why teachers should give final exams on the first day of class, why it's wise to interleave subjects and concepts when learning any new skill, and when it's smarter

to stay up late prepping for that presentation than to rise early for one last cram session. And if this requires some suspension of disbelief, that's because the research defies what we've been told, throughout our lives, about how best to learn. The brain is not like a muscle, at least not in any straightforward sense. It is something else altogether, sensitive to mood, to timing, to circadian rhythms, as well as to location and environment. It doesn't take orders well, to put it mildly. If the brain is a learning machine, then it is an eccentric one. In *How We Learn*, Benedict Carey shows us how to exploit its quirks to our advantage.

make it stick the science of successful learning: How Learning Works Susan A. Ambrose, Michael W. Bridges, Michele DiPietro, Marsha C. Lovett, Marie K. Norman, 2010-04-16 Praise for *How Learning Works* *How Learning Works* is the perfect title for this excellent book. Drawing upon new research in psychology, education, and cognitive science, the authors have demystified a complex topic into clear explanations of seven powerful learning principles. Full of great ideas and practical suggestions, all based on solid research evidence, this book is essential reading for instructors at all levels who wish to improve their students' learning. —Barbara Gross Davis, assistant vice chancellor for educational development, University of California, Berkeley, and author, *Tools for Teaching* This book is a must-read for every instructor, new or experienced. Although I have been teaching for almost thirty years, as I read this book I found myself resonating with many of its ideas, and I discovered new ways of thinking about teaching. —Eugenia T. Paulus, professor of chemistry, North Hennepin Community College, and 2008 U.S. Community Colleges Professor of the Year from The Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education Thank you Carnegie Mellon for making accessible what has previously been inaccessible to those of us who are not learning scientists. Your focus on the essence of learning combined with concrete examples of the daily challenges of teaching and clear tactical strategies for faculty to consider is a welcome work. I will recommend this book to all my colleagues. —Catherine M. Casserly, senior partner, The Carnegie Foundation for the Advancement of Teaching As you read about each of the seven basic learning principles in this book, you will find advice that is grounded in learning theory, based on research evidence, relevant to college teaching, and easy to understand. The authors have extensive knowledge and experience in applying the science of learning to college teaching, and they graciously share it with you in this organized and readable book. —From the Foreword by Richard E. Mayer, professor of psychology, University of California, Santa Barbara; coauthor, *e-Learning and the Science of Instruction*; and author, *Multimedia Learning*

make it stick the science of successful learning: Ask More Frank Sesno, 2017-01-11 What hidden skill links successful people in all walks of life? The answer is surprisingly simple: they know how to ask the right questions at the right time. Questions help us break down barriers, discover secrets, solve puzzles, and imagine new ways of doing things. The right question can provide for us not only the answer we need right then but also the ones we'll need tomorrow. Emmy award-winning journalist and media expert Frank Sesno wants to teach you how to question others in a methodical, intentional way so that you can find the same success that others have found by mastering this simple skill. In *Ask More*, you will learn: How the Gates Foundation used strategic questions to plan its battle against malaria How turnaround expert Steve Miller uses diagnostic questions to get to the heart of a company's problems How creative questions animated a couple of techie dreamers to brainstorm Uber How journalist Anderson Cooper uses confrontational questions to hold people accountable Throughout *Ask More*, you'll explore all different types of inquiries--from questions that cement relationships, to those that will help you plan for the future. By the end, you'll know what to ask and when, what you should listen for, and what you can expect as the outcome.

make it stick the science of successful learning: Grasp Sanjay Sarma, Luke Yoquinto, 2020-08-18 How do we learn? And how can we learn better? In this groundbreaking look at the science of learning, Sanjay Sarma, head of Open Learning at MIT, shows how we can harness this knowledge to discover our true potential. Drawing from his own experience as an educator as well as the work of researchers and innovators at MIT and beyond, in *Grasp*, Sarma explores the history

of modern education, tracing the way in which traditional classroom methods—lecture, homework, test, repeat—became the norm and showing why things need to change. The book takes readers across multiple frontiers, from fundamental neuroscience to cognitive psychology and beyond, as it considers the future of learning. It introduces scientists who study forgetting, exposing it not as a simple failure of memory but as a critical weapon in our learning arsenal. It examines the role curiosity plays in promoting a state of “readiness to learn” in the brain (and its troublesome twin, “unreadiness to learn”). And it reveals how such ideas are being put into practice in the real world, such as at unorthodox new programs like Ad Astra, located on the SpaceX campus. Along the way, Grasp debunks long-held views such as the noxious idea of “learning styles,” equipping readers with practical tools for absorbing and retaining information across a lifetime of learning.

make it stick the science of successful learning: Design for how People Learn Julie Dirksen, 2011 Products, technologies, and workplaces change so quickly today that everyone is continually learning. Many of us are also teaching, even when it's not in our job descriptions. Whether it's giving a presentation, writing documentation, or creating a website or blog, we need and want to share our knowledge with other people. But if you've ever fallen asleep over a boring textbook, or fast-forwarded through a tedious e-learning exercise, you know that creating a great learning experience is harder than it seems. In *Design For How People Learn*, you'll discover how to use the key principles behind learning, memory, and attention to create materials that enable your audience to both gain and retain the knowledge and skills you're sharing. Using accessible visual metaphors and concrete methods and examples, *Design For How People Learn* will teach you how to leverage the fundamental concepts of instructional design both to improve your own learning and to engage your audience.

make it stick the science of successful learning: Learning from the Inside-Out Manya Whitaker, 2016-09-29 Learning from the Inside-Out: Child Development and School Choice is the first book of its kind to marry child development, educational psychology, neuroscience, and pedagogy. This book goes beyond the now banal conversation of differentiating students based upon gender, race, and class. This book is about the cognitive and social needs of students throughout the developmental span and how to identify schools that meet those needs. In essence, this book rejects the one-size-fits-all discourse of education reform in favor of a focus on individualized educational decision-making. Learning from the Inside-Out acknowledges that contrary to the popular saying, good teaching is not good teaching. What one student needs in a teacher, classroom environment or curricula is not necessarily what another student might need despite demographic similarities. After reading this book, parents and teachers will be empowered and informed when making decisions about how best to educate children.

make it stick the science of successful learning: Embedded Formative Assessment Dylan Wiliam, 2011-11-01 Formative assessment plays an important role in increasing teacher quality and student learning when it's viewed as a process rather than a tool. Emphasizing the instructional side of formative assessment, this book explores in depth the use of classroom questioning, learning intentions and success criteria, feedback, collaborative and cooperative learning, and self-regulated learning to engineer effective learning environments for students.

make it stick the science of successful learning: Drive Daniel H. Pink, 2011-04-05 The New York Times bestseller that gives readers a paradigm-shattering new way to think about motivation from the author of *When: The Scientific Secrets of Perfect Timing* Most people believe that the best way to motivate is with rewards like money—the carrot-and-stick approach. That's a mistake, says Daniel H. Pink (author of *To Sell Is Human: The Surprising Truth About Motivating Others*). In this provocative and persuasive new book, he asserts that the secret to high performance and satisfaction—at work, at school, and at home—is the deeply human need to direct our own lives, to learn and create new things, and to do better by ourselves and our world. Drawing on four decades of scientific research on human motivation, Pink exposes the mismatch between what science knows and what business does—and how that affects every aspect of life. He examines the three elements of true motivation—autonomy, mastery, and purpose—and offers smart and surprising techniques for

putting these into action in a unique book that will change how we think and transform how we live.

make it stick the science of successful learning: Small Teaching James M. Lang, 2016-03-07 Employ cognitive theory in the classroom every day Research into how we learn has opened the door for utilizing cognitive theory to facilitate better student learning. But that's easier said than done. Many books about cognitive theory introduce radical but impractical theories, failing to make the connection to the classroom. In *Small Teaching*, James Lang presents a strategy for improving student learning with a series of modest but powerful changes that make a big difference—many of which can be put into practice in a single class period. These strategies are designed to bridge the chasm between primary research and the classroom environment in a way that can be implemented by any faculty in any discipline, and even integrated into pre-existing teaching techniques. Learn, for example: How does one become good at retrieving knowledge from memory? How does making predictions now help us learn in the future? How do instructors instill fixed or growth mindsets in their students? Each chapter introduces a basic concept in cognitive theory, explains when and how it should be employed, and provides firm examples of how the intervention has been or could be used in a variety of disciplines. Small teaching techniques include brief classroom or online learning activities, one-time interventions, and small modifications in course design or communication with students.

make it stick the science of successful learning: How to Become a Straight-A Student Cal Newport, 2006-12-26 Looking to jumpstart your GPA? Most college students believe that straight A's can be achieved only through cramming and painful all-nighters at the library. But Cal Newport knows that real straight-A students don't study harder—they study smarter. A breakthrough approach to acing academic assignments, from quizzes and exams to essays and papers, How to Become a Straight-A Student reveals for the first time the proven study secrets of real straight-A students across the country and weaves them into a simple, practical system that anyone can master. You will learn how to:

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- Conquer procrastination
- Absorb the material quickly and effectively
- Know which reading assignments are critical—and which are not
- Target the paper topics that wow professors
- Provide A+ answers on exams
- Write stellar prose without the agony

A strategic blueprint for success that promises more free time, more fun, and top-tier results, How to Become a Straight-A Student is the only study guide written by students for students—with the insider knowledge and real-world methods to help you master the college system and rise to the top of the class.

make it stick the science of successful learning: *The Curious Kid's Science Book* Asia Citro, 2015-09-08 What happens if you water plants with juice? Where can you find bacteria in your house? Is slug slime as strong as a glue stick? How would your child find the answers to these questions? In *The Curious Kid's Science Book*, your child will learn to design his or her own science investigations to determine the answers! Children will learn to ask their own scientific questions, discover value in failed experiments, and — most importantly — have a blast with science. The 100+ hands-on activities in the book use household items to playfully teach important science, technology, engineering, and math skills. Each creative activity includes age-appropriate explanations and (when possible) real life applications of the concepts covered. Adding science to your at-home schedule will make a positive impact on your child's learning. Just one experiment a week will help build children's confidence and excitement about the sciences, boost success in the classroom, and give them the tools to design and execute their own science fair projects.

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make it stick the science of successful learning: ADKAR Jeff Hiatt, 2006 In his first complete text on the ADKAR model, Jeff Hiatt explains the origin of the model and explores what drives each building block of ADKAR. Learn how to build awareness, create desire, develop knowledge, foster ability and reinforce changes in your organization. The ADKAR Model is changing how we think about managing the people side of change, and provides a powerful foundation to help you succeed at change.

make it stick the science of successful learning: Adaptive Instructional Systems Robert A. Sottolare, Jessica Schwarz, 2019-07-10 This book constitutes the refereed proceedings of the First International Conference on Adaptive Instructional Systems, AIS 2019, held in July 2019 as part of HCI International 2019 in Orlando, FL, USA. HCII 2019 received a total of 5029 submissions, of which 1275 papers and 209 posters were accepted for publication after a careful reviewing process. The 50 papers presented in this volume are organized in topical sections named: Adaptive Instruction Design and Authoring, Interoperability and Standardization in Adaptive Instructional Systems, Instructional Theories in Adaptive Instruction, Learner Assessment and Modelling, AI in Adaptive Instructional Systems, Conversational Tutors.

make it stick the science of successful learning: The Food Lab: Better Home Cooking Through Science J. Kenji López-Alt, 2015-09-21 A New York Times Bestseller Winner of the James Beard Award for General Cooking and the IACP Cookbook of the Year Award The one book you must have, no matter what you're planning to cook or where your skill level falls.—New York Times Book Review Ever wondered how to pan-fry a steak with a charred crust and an interior that's perfectly medium-rare from edge to edge when you cut into it? How to make homemade mac 'n' cheese that is as satisfyingly gooey and velvety-smooth as the blue box stuff, but far tastier? How to roast a succulent, moist turkey (forget about brining!)—and use a foolproof method that works every time? As Serious Eats's culinary nerd-in-residence, J. Kenji López-Alt has pondered all these questions and more. In *The Food Lab*, Kenji focuses on the science behind beloved American dishes, delving into the interactions between heat, energy, and molecules that create great food. Kenji shows that often, conventional methods don't work that well, and home cooks can achieve far better results using new—but simple—techniques. In hundreds of easy-to-make recipes with over 1,000 full-color images, you will find out how to make foolproof Hollandaise sauce in just two minutes, how to transform one simple tomato sauce into a half dozen dishes, how to make the crispiest, creamiest potato casserole ever conceived, and much more.

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offers the reader a step-by-step process for delivering the key messages of the book to students in as little as 50 minutes. Free online supplements provide three slide sets and a sample video lecture. This book is written primarily for faculty but will be equally useful for TAs, tutors, and learning center professionals. For readers with no background in education or cognitive psychology, the book avoids jargon and esoteric theory.

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without turning into The Hulk. These Lazy Genius principles--such as Decide Once, Start Small, Ask the Magic Question, and more--offer a better way to approach your time, relationships, and piles of mail, no matter your personality or life stage. Be who you already are, just with a better set of tools.

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