

From STEM To STEAM: Using Brain-Compatible Strategies To Integrate The Arts



DOWNLOAD EBOOK

Synopsis

Build the skills mathematicians and scientists need! A is for arts and for the advantage students gain when you integrate arts into STEM instruction. As research in neuroscience shows, arts activities enhance creativity, problem solving, memory systems, and analytical skills—all critical for achieving STEM success. Now best-selling author David Sousa teams up with veteran arts educator Tom Pilecki to bring you: Teacher-tested techniques for fitting the arts into STEM classrooms Sample lesson plans across K-12 A worksheet template for designing your own integrated lessons Tips for managing time and collaborating

Book Information

Age Range: 8 and up

Paperback: 280 pages

Publisher: Corwin; 1 edition (March 14, 2013)

Language: English

ISBN-10: 1452258333

ISBN-13: 978-1452258331

Product Dimensions: 7 x 0.7 x 10 inches

Shipping Weight: 1.3 pounds (View shipping rates and policies)

Average Customer Review: 4.2 out of 5 stars 18 customer reviews

Best Sellers Rank: #68,729 in Books (See Top 100 in Books) #32 in Books > Education & Teaching > Schools & Teaching > Curriculum & Lesson Plans > STEM Education #80 in Books > Textbooks > Education > Curriculum & Instruction #137 in Books > Education & Teaching > Schools & Teaching > Curriculum & Lesson Plans > Curricula

Customer Reviews

"David Sousa's new book is more than hot; it is STEAMing! It is crammed full of suggestions to integrate arts into every STEM curricula at all grade levels to increase student learning. The research-based suggestions for strategies to engage students and deepen the level of thinking are abundantly supported with ideas for PLCs and a plethora of resources. Every teacher who is ready to update their pedagogy and make their teaching red hot needs this is the book!"--Renee Peoples, Teacher and Math Coach (10/18/2012)"STEM without creativity in application is stagnant. Brain research shows that we must rethink methodology in STEM education if we are to produce not only talented professionals, but also enriched members of society. From STEM to STEAM is a start in that direction."--Debra K. Las, Science Teacher (10/18/2012)"From STEM to STEAM is a game

changer for educators who are serious about bringing excellence back into the classroom. It crosses ages, stages and curriculum development through research and practical application."--Darleen Horton, Environmental Magnet School Coordinator (10/18/2012)"This book should be a required reading for all teachers! Thisbook is completely informative with a practical and authentic approach to changing STEM to STEAM as Arts Integration. The authors, David A. Sousa and Tomas J. Pilecki were brilliant in their analyses of why, what, and how Arts Integrations works without a doubt. I would highly recommend thisbook to my peers and administration because I found deep connections of arts integration which fostered interdisciplinary connections throughout the curriculum. Students would learn and remember what they learned because critical thinking rounded the learning experience for the whole child in a holistic direction."--Melanie Sitzler Hedges, Art Teacher (10/18/2012)"Imagine classrooms of children imitating the ways of knowing experienced by DaVinci or Michelangelo. In From STEM to STEAM, authors Sousa and Pilecki not only persuade us to integrate ARTS into the K-12 curriculum, they also remind us of the value of a classical education- an education that reveals how all knowledge is interrelated. In this timely book, the authors entice K-12 educators to transform their classrooms into centers of arts and science inquiry; and, in a rather credible manner, provide step-by-step guidelines for engaging K-12 learners in a rich interdisciplinary curriculum of Science, Technology, Engineering, Arts, and Mathematics."--Susan Lee Pasquarelli, Professor of Literacy Education"If STEAM is something you are not familiar with, this book is a must-read. This book has given me information on the research and proved why STEAM was important; it is also something I can now add to grant applications for supporting documentation. I gave the activities to our staff of Science Educators and they loved not only how each activity was explained, but the breakdown of all the objectives for the activity. In my 15 years in Education, I have never read a book that made sense of why STEAM is so critical to our society.I truly believe that this book will help my Education staff make stronger more substantial programming throughout our museum. I am recommending this book to every Science Center I know. This book provides an innovative approach to a crucial subject that our country needs to buy into for a prosperous future. --Kate Arrizza, Chief Operating Officer"I found Sousa's and Pilecki's book to be a practical how-to on integrating the arts, both visual and performance, into the current trend in education to accentuate the teaching of science, technology and mathematics. All in all, this practical book melds the arts with the sciences and that might just make more educators look at the teaching and implementing of arts programs with a more favorable eye."--Sister Carol Cimino, SSJ"David Sousa and Tom Pilecki paint a compelling picture of how integration of the arts into education not only improves academic performance by our students, but also strengthens the nation

s workforce and better positions the U.S. in the global economy. Built on a rich foundation of research, the authors link the big ideas of education reform to classroom-tested teaching strategies. As America grapples with how to educate young people in the third millennium, *From STEM to STEAM* is a must read for educators, policy makers, and community leaders alike. --Randy Cohen, Vice President of Research and Policy""The book discusses one of the most critical issues in education today using creativity and inquiry to inspire and engage students. STEAM is by its nature collaborative and creative blending the arts and sciences which is exactly what 21st century students are being expected to do. The authors present a thoughtful, real-life approach to concepts, lessons and activities that can be used in and out of the formal classroom environment. A must-read for any educator or youth development professional.""--Judy Nee, Executive Vice President/General Manager (12/14/2012)""This book is a must read for educators, policy makers, and industry leaders addressing how to develop an innovative workforce for the future.Sousa andPilecki have successfully outlined a pragmatic approach to empower teachers with the ability to integrate the arts into science, technology, engineering, and math (STEM) discipline areas. This sets the stage for a national conversation to move from STEM to STEAM."--Edward L. Abeyta, Director of K-16 Programs (01/09/2013)""David Sousa's new book is more than hot; it is STEAMing! It is crammed full of suggestions to integrate arts into every STEM curricula at all grade levels to increase student learning. The research-based suggestions for strategies to engage students and deepen the level of thinking are abundantly supported with ideas for PLCs and a plethora of resources. Every teacher who is ready to update their pedagogy and make their teaching red hot needs this is the book!"--Renee Peoples, Teacher and Math Coach (10/18/2012)"STEM without creativity in application is stagnant. Brain research shows that we must rethink methodology in STEM education if we are to produce not only talented professionals, but also enriched members of society. From STEM to STEAM is a start in that direction."--Debra K. Las, Science Teacher (10/18/2012)"From STEM to STEAM is a game changer for educators who are serious about bringing excellence back into the classroom. It crosses ages, stages and curriculum development through research and practical application."--Darleen Horton, Environmental Magnet School Coordinator (10/18/2012) Imagine classrooms of children imitating the ways of knowing experienced by DaVinci or Michelangelo. In *From STEM to STEAM*, authors Sousa and Pilecki not only persuade us to integrate ARTS into the K-12 curriculum, they also remind us of the value of a classical education- an education that reveals how all knowledge is interrelated. In this timely book, the authors entice K-12 educators to transform their classrooms into centers of arts and science inquiry; and, in a rather credible manner, provide step-by-step guidelines for engaging K-12 learners in a rich

interdisciplinary curriculum of Science, Technology, Engineering, Arts, and Mathematics."--Susan Lee Pasquarelli, Professor of Literacy Education" If STEAM is something you are not familiar with, this book is a must-read. This book has given me information on the research and proved why STEAM was important; it is also something I can now add to grant applications for supporting documentation. I gave the activities to our staff of Science Educators and they loved not only how each activity was explained, but the breakdown of all the objectives for the activity. In my 15 years in Education, I have never read a book that made sense of why STEAM is so critical to our society. I truly believe that this book will help my Education staff make stronger more substantial programming throughout our museum. I am recommending this book to every Science Center I know. This book provides an innovative approach to a crucial subject that our country needs to buy into for a prosperous future. --Kate Arrizza, Chief Operating Officer" I found Sousa's and Pilecki's book to be a practical how-to on integrating the arts, both visual and performance, into the current trend in education to accentuate the teaching of science, technology and mathematics. All in all, this practical book melds the arts with the sciences and that might just make more educators look at the teaching and implementing of arts programs with a more favorable eye."--Sister Carol Cimino, SSJ" David Sousa and Tom Pilecki paint a compelling picture of how integration of the arts into education not only improves academic performance by our students, but also strengthens the nation's workforce and better positions the U.S. in the global economy. Built on a rich foundation of research, the authors link the big ideas of education reform to classroom-tested teaching strategies. As America grapples with how to educate young people in the third millennium, From STEM to STEAM is a must read for educators, policy makers, and community leaders alike. --Randy Cohen, Vice President of Research and Policy""This book should be a required reading for all teachers! This book is completely informative with a practical and authentic approach to changing STEM to STEAM as Arts Integration. The authors, David A. Sousa and Tomas J. Pilecki were brilliant in their analyses of why, what, and how Arts Integrations works without a doubt. I would highly recommend this book to my peers and administration because I found deep connections of arts integration which fostered interdisciplinary connections throughout the curriculum. Students would learn and remember what they learned because critical thinking rounded the learning experience for the whole child in a holistic direction."--Melanie Sitzler Hedges, Art Teacher (10/18/2012)"Imagine classrooms of children imitating the "ways of knowing" experienced by DaVinci or Michelangelo. In From STEM to STEAM, authors Sousa and Pilecki not only persuade us to integrate ARTS into the K-12 curriculum, they also remind us of the value of a classical education- an education that reveals how all knowledge is interrelated. In this timely book, the authors entice K-12 educators to transform their

classrooms into centers of arts and science inquiry; and, in a rather credible manner, provide step-by-step guidelines for engaging K-12 learners in a rich interdisciplinary curriculum of Science, Technology, Engineering, Arts, and Mathematics."--Susan Lee Pasquarelli, Professor of Literacy Education

"If STEAM is something you are not familiar with, this book is a must-read. This book has given me information on the research and proved why STEAM was important; it is also something I can now add to grant applications for supporting documentation. I gave the activities to our staff of Science Educators and they loved not only how each activity was explained, but the breakdown of all the objectives for the activity. In my 15 years in Education, I have never read a book that made sense of why STEAM is so critical to our society. I truly believe that this book will help my Education staff make stronger more substantial programming throughout our museum. I am recommending this book to every Science Center I know. This book provides an innovative approach to a crucial subject that our country needs to buy into for a prosperous future."--Kate Arrizza, Chief Operating Officer

"I found Sousa's and Pilecki's book to be a practical how-to on integrating the arts, both visual and performance, into the current trend in education to accentuate the teaching of science, technology and mathematics. All in all, this practical book melds the arts with the sciences and that might just make more educators look at the teaching and implementing of arts programs with a more favorable eye."--Sister Carol Cimino, SSJ

"David Sousa and Tom Pilecki paint a compelling picture of how integration of the arts into education not only improves academic performance by our students, but also strengthens the nation's workforce and better positions the U.S. in the global economy. Built on a rich foundation of research, the authors link the big ideas of education reform to classroom-tested teaching strategies. As America grapples with how to educate young people in the third millennium, From STEM to STEAM is a must read for educators, policy makers, and community leaders alike."--Randy Cohen, Vice President of Research and Policy

"The book discusses one of the most critical issues in education today - using creativity and inquiry to inspire and engage students. STEAM is by its nature collaborative and creative - blending the arts and sciences - which is exactly what 21st century students are being expected to do. The authors present a thoughtful, real-life approach to concepts, lessons and activities that can be used in and out of the formal classroom environment. A must-read for any educator or youth development professional."--Judy Nee, Executive Vice President/General Manager (12/14/2012)

"This book is a must read for educators, policy makers, and industry leaders addressing how to develop an innovative workforce for the future. Sousa and Pilecki have successfully outlined a pragmatic approach to empower teachers with the ability to integrate the arts into science, technology, engineering, and math (STEM) discipline areas. This sets the stage for a national conversation to

move from STEM to STEAM."--Edward L. Abeyta, Director of K-16 Programs (01/09/2013)-This book should be a required reading for all teachers! This book is completely informative with a practical and authentic approach to changing STEM to STEAM as Arts Integration. The authors, David A. Sousa and Tomas J. Pilecki were brilliant in their analyses of why, what, and how Arts Integrations works without a doubt. I would highly recommend this book to my peers and administration because I found deep connections of arts integration which fostered interdisciplinary connections throughout the curriculum. Students would learn and remember what they learned because critical thinking rounded the learning experience for the whole child in a holistic direction.---

Melanie Sitzler Hedges, Art Teacher (10/18/2012)-David Sousa's new book is more than hot; it is STEAMing! It is crammed full of suggestions to integrate arts into every STEM curricula at all grade levels to increase student learning. The research-based suggestions for strategies to engage students and deepen the level of thinking are abundantly supported with ideas for PLCs and a plethora of resources. Every teacher who is ready to update their pedagogy and make their teaching red hot needs this is the book!---

Renee Peoples, Teacher and Math Coach (10/18/2012)-STEM without creativity in application is stagnant. Brain research shows that we must rethink methodology in STEM education if we are to produce not only talented professionals, but also enriched members of society. From STEM to STEAM is a start in that direction.---

Debra K. Las, Science Teacher (10/18/2012)-From STEM to STEAM is a game changer for educators who are serious about bringing excellence back into the classroom. It crosses ages, stages and curriculum development through research and practical application.---

Darleen Horton, Environmental Magnet School Coordinator (10/18/2012)-Imagine classrooms of children imitating the -ways of knowing- experienced by DaVinci or Michelangelo. In From STEM to STEAM, authors Sousa and Pilecki not only persuade us to integrate ARTS into the K-12 curriculum, they also remind us of the value of a classical education- an education that reveals how all knowledge is interrelated. In this timely book, the authors entice K-12 educators to transform their classrooms into centers of arts and science inquiry; and, in a rather credible manner, provide step-by-step guidelines for engaging K-12 learners in a rich interdisciplinary curriculum of Science, Technology, Engineering, Arts, and Mathematics.---

Susan Lee Pasquarelli, Professor of Literacy Education-If STEAM is something you are not familiar with, this book is a must-read. This book has given me information on the research and proved why STEAM was important; it is also something I can now add to grant applications for supporting documentation. I gave the activities to our staff of Science Educators and they loved not only how each activity was explained, but the breakdown of all the objectives for the activity. In my 15 years in Education, I have never read a book that made sense of why STEAM is so critical to our

society. I truly believe that this book will help my Education staff make stronger more substantial programming throughout our museum. I am recommending this book to every Science Center I know. This book provides an innovative approach to a crucial subject that our country needs to buy into for a prosperous future.---Kate Arrizza, Chief Operating Officer-I found Sousa's and Pilecki's book to be a practical how-to on integrating the arts, both visual and performance, into the current trend in education to accentuate the teaching of science, technology and mathematics. All in all, this practical book melds the arts with the sciences and that might just make more educators look at the teaching and implementing of arts programs with a more favorable eye.---Sister Carol Cimino, SSJ-David Sousa and Tom Pilecki paint a compelling picture of how integration of the arts into education not only improves academic performance by our students, but also strengthens the nation's workforce and better positions the U.S. in the global economy. Built on a rich foundation of research, the authors link the big ideas of education reform to classroom-tested teaching strategies. As America grapples with how to educate young people in the third millennium, From STEM to STEAM is a must read for educators, policy makers, and community leaders alike.---Randy Cohen, Vice President of Research and Policy-The book discusses one of the most critical issues in education today - using creativity and inquiry to inspire and engage students. STEAM is by its nature collaborative and creative - blending the arts and sciences - which is exactly what 21st century students are being expected to do. The authors present a thoughtful, real-life approach to concepts, lessons and activities that can be used in and out of the formal classroom environment. A must-read for any educator or youth development professional.---Judy Nee, Executive Vice President/General Manager (12/14/2012)-This book is a must read for educators, policy makers, and industry leaders addressing how to develop an innovative workforce for the future. Sousa and Pilecki have successfully outlined a pragmatic approach to empower teachers with the ability to integrate the arts into science, technology, engineering, and math (STEM) discipline areas. This sets the stage for a national conversation to move from STEM to STEAM.---Edward L. Abeyta, Director of K-16 Programs (01/09/2013)

"This book should be a required reading for all teachers! This is a book is completely informative with a practical and authentic approach to changing STEM to STEAM as Arts Integration. The authors, David A. Sousa and Tomas J. Pilecki were brilliant in their analyses of why, what, and how Arts Integrations works without a doubt. I would highly recommend this book to my peers and administration because I found deep connections of arts integration which fostered interdisciplinary connections throughout the curriculum. Students would learn and remember what they learned

because critical thinking rounded the learning experience for the whole child in a holistic direction." (Melanie Sitzer Hedges, Art Teacher 2012-10-18)"David Sousa's new book is more than hot; it is STEAMing! It is crammed full of suggestions to integrate arts into every STEM curricula at all grade levels to increase student learning. The research-based suggestions for strategies to engage students and deepen the level of thinking are abundantly supported with ideas for PLCs and a plethora of resources. Every teacher who is ready to update their pedagogy and make their teaching red hot needs this is the book!" (Renee Peoples, Teacher and Math Coach 2012-10-18)"STEM without creativity in application is stagnant. Brain research shows that we must rethink methodology in STEM education if we are to produce not only talented professionals, but also enriched members of society. From STEM to STEAM is a start in that direction." (Debra K. Las, Science Teacher 2012-10-18)"From STEM to STEAM is a game changer for educators who are serious about bringing excellence back into the classroom. It crosses ages, stages and curriculum development through research and practical application." (Darleen Horton, Environmental Magnet School Coordinator 2012-10-18)"Imagine classrooms of children imitating the "ways of knowing" experienced by DaVinci or Michelangelo. In From STEM to STEAM, authors Sousa and Pilecki not only persuade us to integrate ARTS into the K-12 curriculum, they also remind us of the value of a classical education- an education that reveals how all knowledge is interrelated. In this timely book, the authors entice K-12 educators to transform their classrooms into centers of arts and science inquiry; and, in a rather credible manner, provide step-by-step guidelines for engaging K-12 learners in a rich interdisciplinary curriculum of Science, Technology, Engineering, Arts, and Mathematics." (Susan Lee Pasquarelli, Professor of Literacy Education)"If STEAM is something you are not familiar with, this book is a must-read. This book has given me information on the research and proved why STEAM was important; it is also something I can now add to grant applications for supporting documentation. I gave the activities to our staff of Science Educators and they loved not only how each activity was explained, but the breakdown of all the objectives for the activity. In my 15 years in Education, I have never read a book that made sense of why STEAM is so critical to our society. I truly believe that this book will help my Education staff make stronger more substantial programming throughout our museum. I am recommending this book to every Science Center I know. This book provides an innovative approach to a crucial subject that our country needs to buy into for a prosperous future." (Kate Arrizza, Chief Operating Officer)"I found Sousa's and Pilecki's book to be a practical how-to on integrating the arts, both visual and performance, into the current trend in education to accentuate the teaching of science, technology and mathematics. All in all, this

practical book melds the arts with the sciences and that might just make more educators look at the teaching and implementing of arts programs with a more favorable eye." (Sister Carol Cimino, SSJ)•David Sousa and Tom Pilecki paint a compelling picture of how integration of the arts into education not only improves academic performance by our students, but also strengthens the nation's workforce and better positions the U.S. in the global economy. Built on a rich foundation of research, the authors link the big ideas of education reform to classroom-tested teaching strategies. As America grapples with how to educate young people in the third millennium, From STEM to STEAM is a must read for educators, policy makers, and community leaders alike. (Randy Cohen, Vice President of Research and Policy)"The book discusses one of the most critical issues in education today – using creativity and inquiry to inspire and engage students. STEAM is by its nature collaborative and creative – blending the arts and sciences – which is exactly what 21st century students are being expected to do. The authors present a thoughtful, real-life approach to concepts, lessons and activities that can be used in and out of the formal classroom environment. A must-read for any educator or youth development professional." (Judy Nee, Executive Vice President/General Manager 2012-12-14)"This book is a must read for educators, policy makers, and industry leaders addressing how to develop an innovative workforce for the future.Â Sousa andÂ Pilecki have successfully outlined a pragmatic approach to empower teachers with the ability to integrate the arts into science, technology, engineering, and math (STEM) discipline areas. This sets the stage for a national conversation to move from STEM to STEAM." (Edward L. Abeyta, Director of K-16 Programs 2013-01-09)

I am an art teacher, developing a paper on STEAM. This book was the most comprehensive source I found on the topic. I will refer to this book often. In addition to background on the topic it has lots of great ideas for interdisciplinary lessons.

I loved the brain studies and all of the other research cited. This book makes a great case for integrating the arts (and creativity in general) into the core curriculum.

I am totally impressed with this. I gave it to fellow child care workers and they also were impressed!

Great concept. Just too much reiteration of same point.

Great resources with a few examples of how to incorporate STEAM into lessons.

It was interesting and relevant with a similar message to Howard Gardner's work on multiple intelligences.

Happy to see multiple intelligences and Blooms taxonomy applied to cross curricular art integration.

This book is better suited for the classroom teacher trying to create arts integration into their classroom. As an art teacher, this doesn't give me the angle I'm looking for.

[Download to continue reading...](#)

From STEM to STEAM: Using Brain-Compatible Strategies to Integrate the Arts
Happy Brain: 35 Tips to a Happy Brain: How to Boost Your Oxytocin, Dopamine, Endorphins, and Serotonin (Brain Power, Brain Function, Boost Endorphins, Brain Science, Brain Exercise, Train Your Brain)
The Steam-Liners-Steam-Powered Streamlined Passenger Trains
Stem Cell Therapy: A Rising Tide: How Stem Cells Are Disrupting Medicine and Transforming Lives
2014 Calendar: Steam Trains: 12-Month Calendar Featuring Nostalgic Photographs Of Steam Trains From Around The World
How To Build A Steam Engine: Build a Steam Engine from Scratch - Full Beginners Guide with Drawings - Easy to understand - Mostly hand tools - Small amount of lathe work - Many built already
50 More Stem Labs - Science Experiments for Kids (50 Stem Labs) (Volume 2)
The Holy Grail Of Steam: High Adventure Photographing Steam Trains In Mozambique In The 1970s
Functional Neuroanatomy: Including an Atlas of the Brain Stem, and of the Whole Brain in Coronal and Horizontal Sections
Warriors Don't Cry: A Searing Memoir of the Battle to Integrate Little Rock's Central High
Why Isn't My Brain Working?: A Revolutionary Understanding of Brain Decline and Effective Strategies to Recover Your Brain's Health
Brain-Compatible Dance Education
Atlas of the Basal Ganglia, Brain Stem and Spinal Cord Based on Myelin-stained Material
The Classical Brain
Stem Syndromes: Translations of the Original Papers with Notes on the Evolution of Clinical Neuroanatomy
Using STEM to Investigate Issues in Alternative Energy, Grades 6 - 8
Using STEM to Investigate Issues in Food Production, Grades 5 - 8
Using STEM to Investigate Issues in Managing Waste, Grades 5 - 8
Transforming Your STEM Career Through Leadership and Innovation: Inspiration and Strategies for Women
Brain Games® #1: Lower Your Brain Age in Minutes a Day (Brain Games (Numbered))
100+ Word Fill In Puzzle Book For Adults: The French Style Brain Teaser Crossword Puzzles With Fill In Words Puzzles for Total Brain Workout! (A Total Brain Workout Series) (Volume 1)

Contact Us

DMCA

Privacy

FAQ & Help