Developing the Critical 21st Century Skills:
Creativity
Critical Thinking
Communication
Collaboration
Dear Educators,

There are countless thrilling moments between a child and an educator, but perhaps none more so than when a child’s creative spark ignites, lighting a creative path forward that can last a lifetime. Equally important, research says creativity also illuminates a strong academic path forward.

The benefits of arts-infused education are undeniable: It increases student achievement; engages children more profoundly in learning; fosters the all-important 4 Cs of 21st century learning—creativity, critical thinking, communication, and collaboration; provides teachers with innovative, effective classroom strategies; creates a creative school culture that supports learning communities; and helps close the achievement gap.

In short, arts-infused education helps you reach and inspire students—and achieve meaningful results.

Crayola and the National Association of Elementary School Principals (NAESP) have teamed up to help support arts-infused education in your school. Our Champion Creatively Alive Children program empowers principals, teachers, school leaders and entire communities, providing inspiration, knowledge and tools that can unlock imagination and originality in every child.

And there’s no better time to unleash those powerful forces than the elementary grades, when children are natural explorers, open to diverse sights, sounds and experiences and eager to express their thoughts, hopes and dreams.

As educators who are key advocates for children, you can also be key creative leaders in your schools. We welcome you to this exciting initiative, and we encourage you to learn more about your role in championing creatively alive children.

Most important, we are delighted to join you in keeping the creative spark of every child alive!

Colorfully yours,

Mike Perry
CEO
Crayola LLC

Gail Connelly
Executive Director
National Association of Elementary School Principals
Advocacy Begins with Belief and Results in Change

At Crayola and NAESP, We Believe …

• …in the power of children’s original thought.
• …creative experiences provide robust, memorable learning.
• …children are empowered by creative leaders.
• …arts-infused education builds essential 21st century skills—the 4 Cs of Creativity, Critical Thinking, Communication and Collaboration.
• …“what if?” is the greatest question in the world—a question that makes leaders explore creative possibilities and challenge convention.
• …communities make a difference in helping schools turn beliefs into actions that result in change.

Creativity, critical thinking, communication and collaboration are essential skills.

Students need more than just the basics of reading, writing and arithmetic (the 3 Rs) to succeed. Creativity, critical thinking, communication and collaboration (the 4 Cs) are essential at every level—and will become more important to organizations in the future.

—American Management Association 2010 Critical Skills Survey

“Building an organization with flexibility and dexterity requires leadership with the creativity to adapt to a constantly changing environment. These leaders must be able to negotiate through a maze of differing cultures, complex inter-generational dynamics and varied communication styles. Creative leadership, in fact, was identified in our most recent Global CEO Study as the top organizational need over the next five years.”

—IBM (2010)  
Working Beyond Borders: Insights from the Global Chief Human Resource Officer Study

Creative thinking expands learning.

“Decades of research show strong and consistent links between high-quality arts education and a wide range of impressive educational outcomes,” including increased academic achievement, school engagement and creative thinking. …

“More recently, cutting-edge studies in neuroscience have been further developing our understanding of how arts strategies support crucial brain development in learning.”

—President’s Committee on the Arts and the Humanities (May 2011)  
Reinvesting in Arts Education: Winning America’s Future Through Creative Schools

Why Champion Creatively Alive Children?

“Creativity and innovative thinking are essential skills for success in school and in the 21st century workforce. It is not enough merely to graduate more students from school; we must engage and inspire them while they are there, and prepare them for successful careers afterward. All of our research points to the power of the arts in schools to increase academic achievement in reading and math, engage more students in learning and build creative thinking skills. Programs like Champion Creatively Alive Children are crucial in giving principals and teachers the tools they need to ignite the potential in all of their students.”

—Rachel Goslins, Executive Director of the President’s Committee on the Arts and the Humanities
“Anyone who has ever seen a student become excited, energized and confident through artistic exploration has seen first-hand how arts education engages children and contributes to their overall development. While each of the arts disciplines has its own unique set of knowledge, skills and processes, the arts share common characteristics that make arts education powerful preparation for college, career and a fulfilling life.”

—Partnership for 21st Century Skills

**Arts-infused education is a vital—and powerful—way for children to learn content and skills.**

**Students learn through the arts and with the arts.** The arts stimulate curiosity, sharpen our senses, strengthen academic learning and enliven classroom interactions.

The documented benefits of arts integration have been accumulating over the past decade, according to *Reinvesting in Arts Education*, the 2011 report of The President’s Committee on the Arts and the Humanities. Studies have now documented significant links between arts-integration models and:

- Academic and social outcomes for students
- Efficacy for teachers
- School-wide improvements in culture and climate

In recent years, according to this report, arts integration “has formed the basis for several school reform initiatives, and has generated a lot of enthusiasm from classroom teachers, school administrators and policy researchers for its ability to produce results. … Arts integration is efficient, addressing a number of outcomes at the same time. Most important, the greatest gains in schools with arts integration are often seen school-wide and also with the most hard-to-reach and economically disadvantaged students.”
Arts-Infused Education Builds 21st Century Skills: the 4 Cs

**CREATIVITY**
Discovering novel ways to think, learn and do

**CRITICAL THINKING**
Using original ideas to solve problems

**COMMUNICATION**
Expressing thoughts and feelings effectively

**COLLABORATION**
Working in partnership with others toward a common goal

Arts experiences create memorable, engaged learning.
A Comprehensive Program for Arts-Infused Education Leadership, Advocacy and Practice

Arts-infused education is an underused strategy in many school systems today. We know, though, that there is a real hunger in the field for innovative ways to energize teaching and learning. The Champion Creatively Alive Children program will empower you to:

- Explore the benefits of arts-infused education to student achievement and engagement
- Advocate for arts-infused education in your community
- Position the arts teacher as the “Chief Creative Officer” of your school
- Broaden the instructional repertoire of your entire school staff with the arts

Five Flexible Training Modules to Champion Creatively Alive Children

Champion Creatively Alive Children features five flexible training modules—developed by educators, for educators—that will build your school’s capacity to integrate the arts into education:

- Creativity
- Critical Thinking
- Communication
- Collaboration
- Arts-Infused Education Advocacy

The training modules, which can be used separately or as a series, are designed especially for school leaders and arts teachers to inspire school communities. Each training module includes everything you need to spark the interest of faculty members, parents and the community:

- A short, inspirational video that highlights best practices and offers expert commentary on arts-infused education
- A facilitator’s guide with everything you need to customize and deliver a short informational presentation or run a hands-on, in-depth professional development workshop—including step-by-step guidance, activities and exercises
- Resources to make your effort a success—a promotional poster/flier, an engaging PowerPoint® presentation, short handouts for participants and an evaluation form for gathering feedback useful for future presentations

Arts-infused education teaches children creativity, critical thinking, communication and collaboration—the skills they need to be successful in the 21st century. We encourage you to explore innovative ways of building these 4 Cs with arts-infused teaching.
Customize the Program for Your School

Champion Creatively Alive Children is a comprehensive training program that you can adapt easily to your schedule and your school or community needs. The training modules can be used separately or as a series to spark the interest of faculty members, parents and the community.

How Can You Use the Materials to Fit Different Schedules?

- **A full day or several half days** of professional development? Present all five training modules.
- **A 90-minute workshop?** Use one training module—or parts of all five modules.
- **A 30- or 60-minute presentation** to your school board, parents or community members? Show one or two of the videos that fit the group’s interests or needs and modify the presentation and activities to meet participants’ needs.
- **A 15- or 20-minute opportunity** in a staff or parent–teacher gathering? Show one or two of the videos and engage participants in one of the hands-on exercises.

Who Could Lead a Workshop or Presentation?

- **Art teachers** who serve as the “Chief Creative Officers” in schools and are experts in the “why to” and “how to” deliver arts-infused education
- **Principals and other school leaders** who champion arts-infused education as a way to build 21st century skills
- **Curriculum coordinators and academic coaches** who present promising practices, help foster creative experiences to enrich learning and broaden the instructional repertoires of other educators

This program will give you many ideas for making the most of the arts in just a few moments, taking on a short- or longer-term training initiative, or transforming your school into a vibrant environment in which the arts support every aspect of your educational program.
Learn More About the Arts and 4 Cs

**Creativity**

Gardner, a leading cognitive psychologist, discusses how young children learn to draw, make music and tell stories. He explores all aspects of human creativity and cognition and makes recommendations for educators.


IBM's global study of CEOs, general managers and senior public sector leaders in 60 countries and 33 industries revealed that creativity is the most important leadership skill for a complex world. Human resource officers worldwide are focusing on cultivating creative leaders with a flair for thinking about opportunities and challenges in completely different ways.

Kaufman and colleagues outline major creativity research and evaluate various creativity measures including divergent thinking tests, peer/teacher assessment and self-assessment.

Robinson refers to the "element" as that magical experience when a person's passion and creative talent are leveraged. People find their "element" when they are most "themselves" and follow their inspiration. They in turn achieve their greatest heights. Robinson draws upon the life stories of creative leaders in many fields to demonstrate how finding "your element" can fill a life with confidence and accomplishment.

**Critical Thinking**

Barell explains the importance of fostering an atmosphere of inquiry. He provides practical examples of how to expand daily exploration and curiosities, encouraging students to exchange questions and thoughts and how to establish a classroom culture that is based in curiosity.

Darling-Hammond, a renowned expert on performance-based assessments, presents case studies and promising practices that will inform and inspire educators and policy makers. She urges a paradigm shift from traditional, standardized testing to more robust forms of assessment that enable educators to evaluate how students master intellectual challenges and apply learning to life.

Hetland makes a strong case for arts education based on research that examines the immersive inquiry practices of experienced arts teachers. Educators from other disciplines are urged to adopt the best practices demonstrated by art teachers.

Sternberg relates creativity and cognition in his review of research on problem solving and intelligence. He discusses the creative process and how to measure creativity.

**Communication**

McKay explains the importance of effective communication skills, how to craft the message, convey effectively, understand the context and audience, and receive listener feedback. He suggests methods to overcome common communication barriers.

Silberman presents communication insights with practical tips and engaging exercises. Improve your ability to hear and be heard.

"Just imagine the impact if arts education was embraced fully and integrated wholly into every school’s curriculum. It would unleash the talents of all children, helping them to succeed academically, giving them more self-confidence, teaching them to be open and tolerant, and keeping them engaged in school."

Gail Connelly, Executive Director, National Association of Elementary School Principals

Simmons demonstrates how bringing stories to life helps the audience remember your message. Learn how to find, develop and tell stories that will engage others and help them see your point of view. Great for arts advocates!

### Collaboration


Friedman provides guidance for teaching visual arts from a cultural standpoint and addresses how exploring others' visual culture helps interpret their cultural context.


Hargrove believes one of the biggest breakthroughs of the 21st century will be the increased focus on collaboration. He provides a strategic rationale for "why to" and step-by-step hands-on guidance on "how to" be more collaborative.


Rosen discusses 21st century trends and the increased need for collaboration. He provides collaboration tips and tools to help foster a collaborative culture based on trust and communication.


Tharp, a world-renowned dance choreographer, defines collaboration as a process where success can be measured by the outcome. Her premise is simple: "the we is greater than the me." Tharp explains how to recognize good candidates for partnership and how to build a successful collaboration.


VanGundy and Naiman propose that the arts are a way to create transformative learning experiences in organizations. They share lessons learned in arts communities and apply them to businesses and other organizations. More than 70 engaging activities bring theories to life and urge readers to engage in collaborative experiences. Become a change agent who brings more collaborative practices to your colleagues.

### Arts-Infused Education Advocacy


This brochure from the Arts Education Partnership offers recommendations for establishing a school-wide commitment to arts learning, creating an arts-rich learning environment and rethinking the use of time and resources.


Significant longitudinal data show support for benefits of arts education. Findings from two studies done by Catterall and colleagues from the National Educational Longitudinal Survey in the late 1990s and 2009 strongly connect arts learning with both academic success and pro-social outcomes.


This study provides the corporate perspective of skills that are increasing in demand in the workforce. Creativity, critical thinking, communication and collaboration are high on the list.


Davis makes a powerful case for why the arts are essential to every child’s education. She offers educators and advocates evidence in support of arts education programs and helps advocates make a persuasive case.


Eisner presents strong arguments for the inclusion of the arts as a core element of the school curriculum. He addresses both assessment and evaluation in the arts, and proposes a shift from the evaluation of outcomes to the evaluation of process.

Each of the four arts disciplines promote brain development. Jensen provides a neuro-biological case for why the arts should be taught in schools and practical suggestions for educators to use to improve students’ academic achievement.


This guide examines the evidence about the capacities that art education develops in students and what it can prepare them to do. It explores what high-quality instruction looks like and takes a look at some environments in schools and in other settings in which excellent visual arts instruction takes place.


This guide offers three concrete actions school principals can take to increase arts education in their schools: establish a school-wide commitment to arts learning, create an arts-rich learning environment, and rethink the use of time and resources.


This special supplement profiles best practices in arts-infused education throughout the country. It provides insights for becoming “art smart,” turning ideas into practice and bringing creativity into schools, whether in four minutes, four weeks or four years.

www.Crayola.com/creativelyalive


The Partnership has forged alliances with key national organizations that represent the core academic subjects, including social studies, English, math, science, geography and the arts. As a result of these collaborations, the Partnership has developed this map to illustrate the intersection between 21st century skills and the arts. The maps will enable educators, administrators and policymakers to gain concrete examples of how 21st century skills can be integrated into core subjects.


This toolkit is designed for state and district leaders who are interested in implementing the Common Core standards in ways that strengthen the 4 Cs.


This is the most comprehensive report on the state of arts education in schools published in a decade. It reviews research, literature, promising practices and state initiatives—making a case for why the arts are “a wrench to fix schools” not just a “flower to beautify” them. The report presents recommended action steps for policy makers, educators and the private sector. The resource appendix is a treasure trove of studies and model arts programs that will connect readers to additional insights.


Robinson gives historical perspective on the evolution of what education values. He makes a strong case for understanding the archaic nature of the Intelligence Quotient that fails to consider each person’s unique gifts. Robinson argues for radical changes in education to meet the challenges of living and working in the 21st century. His focus is on the need for creativity.


What skills do students need in the 21st century to meet today’s challenges and be successful? Educators are urged to build students’ 4 Cs and change pedagogy to prepare students for the fast-changing global economy.

Visit Crayola.com/CreativelyAlive for more resources on the arts and the 4 Cs.
About the Sponsors

The Champion Creatively Alive Children program is a collaboration between Crayola and the National Association of Elementary School Principals, with support from the National Art Education Association and the Partnership for 21st Century Skills.

Crayola has inspired artistic creativity in children since the first box of Crayola crayons was opened by a child in 1903. Whether it’s providing tools to put a purple octopus on the moon, or enabling teachers to bring arts-infused learning into the classroom, Crayola is passionate about helping parents and educators raise creative and inspired children, who we believe will one day lead the world.

http://www.crayola.com/

The National Association of Elementary School Principals (NAESP), founded in 1921, is a professional organization serving elementary and middle school principals and other education leaders throughout the United States, Canada and overseas. NAESP represents principals who serve 33 million children in pre-kindergarten through grade 8.

http://www.naesp.org/

The National Art Education Association (NAEAA), founded in 1947, is the leading professional membership organization exclusively for visual arts educators. Members include elementary, middle and high school visual arts educators, college and university professors, researchers and scholars, teaching artists, administrators and supervisors, and art museum educators, as well as more than 45,000 students who are members of the National Art Honor Society or are university students preparing to be art educators.

NAEA represents members in all 50 states plus the District of Columbia, U.S. possessions, most Canadian provinces, U.S. military bases around the world and 25 foreign countries.

http://www.arteducators.org/

The Partnership for 21st Century Skills (P21) is a national organization that advocates for 21st century readiness for every student. As we continue to compete in a global economy that demands innovation, P21 and its members provide tools and resources to help the education system keep up by fusing the 3 Rs and 4 Cs. While leading districts and schools are already doing this, P21 advocates for local, state and federal policies that support this approach for every school.

Acknowledgments

Crayola and the National Association of Elementary School Principals would like to thank the students, faculty and communities of 20 schools whose arts-infused education initiatives inspired this professional development program. These 20 schools won competitive grants for the 2010–11 school year from the Champion Creatively Alive Children program. Their stories, projects, artwork and photographs are featured throughout the training materials.

Bower Hill Elementary School
Veneta, PA

East Glacier Park Grade School
East Glacier Park, MT

Estelle Elementary School
Marrero, LA

Evergreen Mill Elementary School
Leesburg, VA

Flocktown-Kossmann Elementary School
Long Valley, NJ

Harriet Gifford Elementary School
Elgin, IL

John D. Shaw Elementary School
Wasilla, AK

John P. Oldham Elementary School
Norwood, MA

Jonathan D. Hyatt P.S. 154
Bronx, NY

Mitchell Elementary School
Chicago, IL

Monticello Intermediate School
Monticello, AR

Norwood Elementary School
Baltimore, MD

Orems Elementary School
Baltimore, MD

Oxford Elementary School
Oxford, MS

Pennington Elementary School
Nashville, TN

Pittsburgh Carmalt Science & Technology Academy
Pittsburgh, PA

R.J. Richey Elementary School
Burnet, TX

School of Performing Arts P.S. 315
Brooklyn, NY

Springville K-8 School
Portland, OR

Zane North Elementary School
Collingswood, NJ