

## Promising Practices: Arts Integration

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### Special Guests:

Fred Gorelick, Kristina Davis, *North Eugene Academy of Arts*

Mike Fisher, Aaron Molyneux, Ian Boyd, *Academy of Arts and Academics*

### SESSION OUTCOMES

*Participants will...*

- Review and re-think the roles artists can play in core academic classes
- Examine student-teacher-artist collaborations from North Eugene's Academy of Arts and Springfield's Academy of Arts and Academics
- Understand the Theory of Action and the work of AWE (Art Works In Education), focusing on OSSI schools involved with the partnership
- Examine some tools with specific suggestions about how to bring more artists and other adult mentors into the classroom

### Agenda

1:00 ... Introduction and Agenda Review

1:05 ... OSSI – AWE Partnership and the Springfield/Eugene pilots

What is AWE?

Why is AWE?

What does it look like in practice?

1:20 ... Excerpts from Action Change Project video

Aaron Molyneux – Academy of Arts and Academics

Ian Boyd – Academy of Arts and Academics

1:35 ... Pearson Digital Storytelling

Fred Gorelick – North Eugene Academy of Arts

Kristina Davis – North Eugene Academy of Arts

1:50 ... Impressions about arts integration: Challenges and opportunities

Mike Fisher, Theron Cosgrave, Michelle Swanson

2:00 ... Next Steps

## ARTSWORK FOR EDUCATION (AWE) SUMMARY OVERVIEW

*AWE's Model of Integrative Arts puts the arts at the center of the curricula by building and supporting pedagogical partnerships between teachers and teaching artists. Partnered together, teachers and teaching artists create a learning environment where academic rigor is enhanced through students' creative expression, and learning is bolstered by students' growth as successful creative problem solvers.*

*ARTSWORK FOR EDUCATION (AWE) is a statewide initiative dedicated to decreasing the achievement gap and increasing the college readiness of Oregon's young people by integrating the arts into the core academic curriculum of the state's K-16 schools, with a concentrated focus on grades 9 through 12. Founded in 2006 with a generous grant from the Rosaria Haugland Foundation, AWE's mission is based on national research that reveals the positive impact of the arts on achievement across academic subject areas for all students from all backgrounds. After piloting projects in local communities in 2007, OIAP is now expanding those projects in Lane county and is poised to launch a statewide effort to leverage the arts to provide better access to and preparation for postsecondary education. AWE focuses work on six areas:*

- Training teachers and teaching artists to work effectively and collaboratively as partners in the classroom to enhance student achievement across disciplines;
- Researching, developing, documenting and disseminating best practices for integrating the arts in education;
- Increasing the college readiness of high school students by linking them to college and university teaching artists and resources;
- Providing coherence and deepened understanding for high school students through integrated curriculum co-planned by high school subject area teachers and college teaching artists;
- Serving as a clearinghouse for information and resources to ensure long-term sustainability through capital development and resource sharing;
- Fostering partnerships that help ensure that all Oregon teachers, students, and communities have access to the tools, knowledge and expertise they need to successfully integrate the arts in education.

Across the country many programs have successfully integrated the arts into elementary curriculum. AWE, however, is one of only a handful of initiatives that targets older students and it is unique in its mission to affect change on a statewide level.

### EVENTS AND ACTIVITIES

In 2007, AWE launched a series of pilot programs in four schools in the Eugene/Springfield area. Twelve teachers in subject areas ranging from language arts to chemistry were paired with twelve teaching artists from the fields of dance, music, printmaking, photography, graphic design and sculpture. The teachers and artists collaborated to design and implement 8-week projects that simultaneously addressed core academic content and the formal processes of the art disciplines. Teachers and teaching artists participated in the following activities to support their work together:

- **December 2006** — Two-day Arts Integration Symposium to train 130 teachers and artists, facilitated by Chicago, Project AIM consultants
- **February 2007** — Intensive unit development session facilitated by ArtsWork for education
- **February through March 2007** — Facilitated planning time for teachers and teaching artists
- **April 2007** — One-day group meeting to fine-tune pilot with arts in education consultants
- **May 2007** — Pilot units launched
- **June 2007** — Pilot sites report on their arts in education units, discuss next steps and prepare to train the first cadre of integrative arts partners

- **August 2007**— Intensive 3 day institute for 80 teachers from 10 Eugene/Springfield schools and schools from Portland, Woodburn, Pendleton, McMinnville, Medford to expand program for 2008.
- **September 2007**— Placed teaching artists in 26 classrooms in 6 schools in Eugene and Springfield and one school in Pendleton to integrate arts into core academic curriculum.
- **January 2008**— Intensive workshop to report on, access and redesign Fall work. Placed teaching artists in 38 classrooms in 9 schools in Eugene , Springfield and Woodburn.

K-12 teachers participating in the pilot reported that students demonstrated greater comprehension of the subject matter they were studying and were significantly more engaged in the learning process. They also noted that student behavioral problems decreased and students were able to work effectively in groups. Teachers gauged these changes through a variety of methods including observation, journals, attendance, and pre- and post-tests. As AWE expands its efforts it will employ uniform assessment practices to gauge the effectiveness of projects across the state based on a variety of quantitative and qualitative measures developed by assessment professionals such as the University of Oregon’s Center for Educational Policy Research and the Northwest Educational Development Labs.

In August 2007, AWE began work with its first cadre of schools. More than 100 teachers and artists from 15 schools in 8 cities worked together to create sets of integrative arts projects; In Lane county and Pendleton, each teacher and teaching artist pair launched a project in the fall and again in the spring. AWE leads the teachers and teaching artists of these cadres through a process of orientation, training, ongoing support, reflection and assessment similar to the one employed during the pilot.

*Sample year-long schedule*

<i>Fall</i>	<i>Spring and Summer</i>
<ul style="list-style-type: none"> <li>• <b>August</b> Orientation and training conference</li> <li>• <b>September</b> One-day, intensive unit development session</li> <li>• <b>October to November</b> Project implementation</li> <li>• <b>December</b> Evaluation, reflection and brainstorming for spring</li> </ul>	<ul style="list-style-type: none"> <li>• <b>February</b> One-day, intensive unit development session</li> <li>• <b>March to April</b> Project implementation</li> <li>• <b>May</b> Evaluation, reflection and preparations for training the next cadre and summer institute</li> <li>• <b>July</b> Summer institute</li> </ul>

As cadres of teachers and teaching artists continue to implement integrative arts in their classrooms, AWE will enlist their help in training and supporting other teachers and teaching artists around the state. Peer-to-peer coaching will be an important part of AWE’s work to bring integrative arts to scale in Oregon. AWE will establish a training facility at Lane Community College, will host the summer institute, and develop on-line and publication distribution systems for dissemination of integrative arts strategies and best practices.

**PARTNERSHIPS AND PARTICIPANTS**

ArtWorks for Education works collaboratively with education leaders and other arts organizations around the state to share ideas and leverage resources to make art an integrative, core component of learning in schools. Current partners or collaborators include:

- Chicago Arts Partnership in Education
- University of Oregon's Schools of Communication and Journalism and Architecture and Allied Arts
- Rosaria Haugland Foundation
- Lane Arts Council
- Lane Community College
- Pearson Education Foundation
- Oregon Small Schools Initiative
- Regional Arts and Culture Council, Portland
- Pacific Northwest College of Art
- University of Oregon's Center for Educational Policy Research
- Young Audiences, Portland

AWE seeks to involve all interested Oregon teachers and teaching artists in integrative arts. The community college system, with its mission to directly serve local communities, is a natural fit for the kind of outreach and support required by integrative arts. AWE, based at Lane Community College, will work collaboratively with other community colleges, which could eventually serve as learning hubs to support integrative arts around the state.

**For more information contact:**

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## **ARTSWORK FOR EDUCATION RESEARCH OVERVIEW: WHAT SCIENCE SAYS**

ARTSWORKS FOR EDUCATION is based on an impressive body of research over the last decade. This research from institutions such as Harvard, UCLA and Stanford shows that the arts have a remarkable impact on student achievement. More importantly, achievement gains from the arts are seen across all disciplines and for students from all backgrounds. The impact of the arts is not limited to students' achievement in high school and college; it extends to the success they have in their lives and careers.

### **ACADEMIC IMPACT**

- Dr. Shirley Brice Heath, a professor of linguistics and English at Stanford University, found that the influences of participation in the arts on language show up in the dramatic increase in syntactic complexity, hypothetical reasoning, and questioning approaches by young people within four to six weeks of their entry into the arts organization.
- Harvard's Project Zero found that students participation in a theater acting program reported that the intense review of Shakespeare texts in preparation for performing helped them not only master that difficult material but also improve their reading of other complex material such as math and physics texts.
- UCLA's Dr. James Catterall reports that students who have consistent high levels of involvement in instrumental music over the middle and high school years show significantly higher levels of mathematics proficiency by grade 12.
- The College Board has concluded that students with just half a year of arts coursework averaged a 7-point gain on the verbal portion of the SAT and a 10-point gain in math, and after 4 years students averaged 49 points higher on the combined score. Students who took more than four years of music and arts scored 34 points higher on the verbal section and 18 points higher on the math section of the SAT.
- In Champions of Change a collection of seven major studies that examined the role of arts education on the academic, behavioral, and thinking lives of children, researchers found that positive academic developments for children engaged in the arts are seen at each step in the research—between 8th and 10th grade as well as between 10th and 12th grade. The comparative gains for arts-involved youngsters generally become more pronounced over time. Moreover and more important, these patterns also hold for children from low socio-economic status (SES) backgrounds. The co-relationship between high involvement in the arts and better academic scores was found among all students and remained consistent when the students studied were selected only from the lowest socioeconomic quartile.
- Jerrold Ross, Director of the National Arts Education Research Center, reported that arts have a significant impact on academic achievement in a variety of settings (urban, suburban, rural), with a variety of population groups from a range of racial, ethnic and socioeconomic backgrounds.
- According to research by Americans for the Arts, young people who participate in the arts are: four times more likely to be recognized for academic achievement, four times more likely to participate in a math and science fair, three times more likely to win an award for school attendance, and four times more likely to win an award for writing an essay or poem.
- A study by the Arts Education Partnership, tracking the results in schools in economically challenged communities, shows that arts programs reduce dropout rates and increase teachers' reports of students who are enthusiastic learners. The study also showed that in these challenging schools arts education programs increase teacher effectiveness and reduce teacher turnover.

- A ten-year study, tracking more than 25,000 students, shows that music-making improves test scores. Regardless of socioeconomic background, music-making students get higher marks in standardized tests than those who had no music involvement. The test scores studied were on both standardized tests, such as the SAT, and reading proficiency exams.

### ECONOMIC IMPACT

- A recent report by the National Center on Education and the Economy predicts that in the current and future economy, “the best employers the world over will be looking for the most competent, most creative, and most innovative people on the face of the earth. Candidates will have to be comfortable with ideas and abstractions, good at both analysis and synthesis, creative and innovative, self-disciplined and well-organized, able to learn quickly and work well as a member of a team.” The report proposes that the best way to provide teachers and students a way to develop the critical thinking, creativity, discipline, and analytical skills they need to succeed in the global economy is through the arts.
- A survey conducted by Business Week of the nation's top business executives found that business leaders agreed that arts education programs can help repair weaknesses in American education and better prepare workers for the 21st century.
- According to a report by the Northwest Business for Culture and the Arts (NWBCA), the arts create \$262 million annually for Oregon’s economy. The arts has supported rapid growth in Oregon’s creative services industries such as advertising, public relations, website design, filmmaking and commercial art ventures. Job growth in this sector is outpacing that of other Portland area industries by a rate of 2:1, with further strong growth on the horizon.

In Oregon and across the country, learning through the arts reinforces crucial academic skills in reading, language arts, and math. But just as important, learning through the arts gives young people the skills they need to analyze and synthesize information, and to solve complex problems in creative ways that support a more comprehensive and sustainable outcome.

### THE ARTS AT THE NEUROLOGICAL LEVEL

Cognitive neuroscientist Antonio Damasio of the University of Iowa Medical School and his team have developed tests using multiple indices measurements and Functional Magnetic Resonance Imaging (fMRI) to study the active brain relative to problem solving. In their book *Visual Communication: Integrating Media, Art and Science*, AWE Executive Director Rick Williams and AWE Board Chair Julianne Newton discuss Damasio’s work and apply it to integrative arts by explaining that when a person solves a problem, the primary cognitive response is in the prefrontal lobes of the brain, the repository of all unconscious memory. Here, on unconscious levels of cognition, all intellectual and perceptual information that is relevant to the problem is synthesized with relevant unconscious memory to generate what Damasio calls unconscious biases. These biases motivate advantageous behavior relative to the problem and the individual acts on these motivations. All of this precedes conscious awareness that a problem is being solved or that behavior has been motivated. Damasio’s work clearly shows that we are not the conscious, rational problem solvers that many think we are. Instead, problem solving happens primarily on unconscious, intuitive levels of cognition before the conscious mind is aware of the process. This establishes the pre-frontal cortex as the cognitive core of creative problem solving.

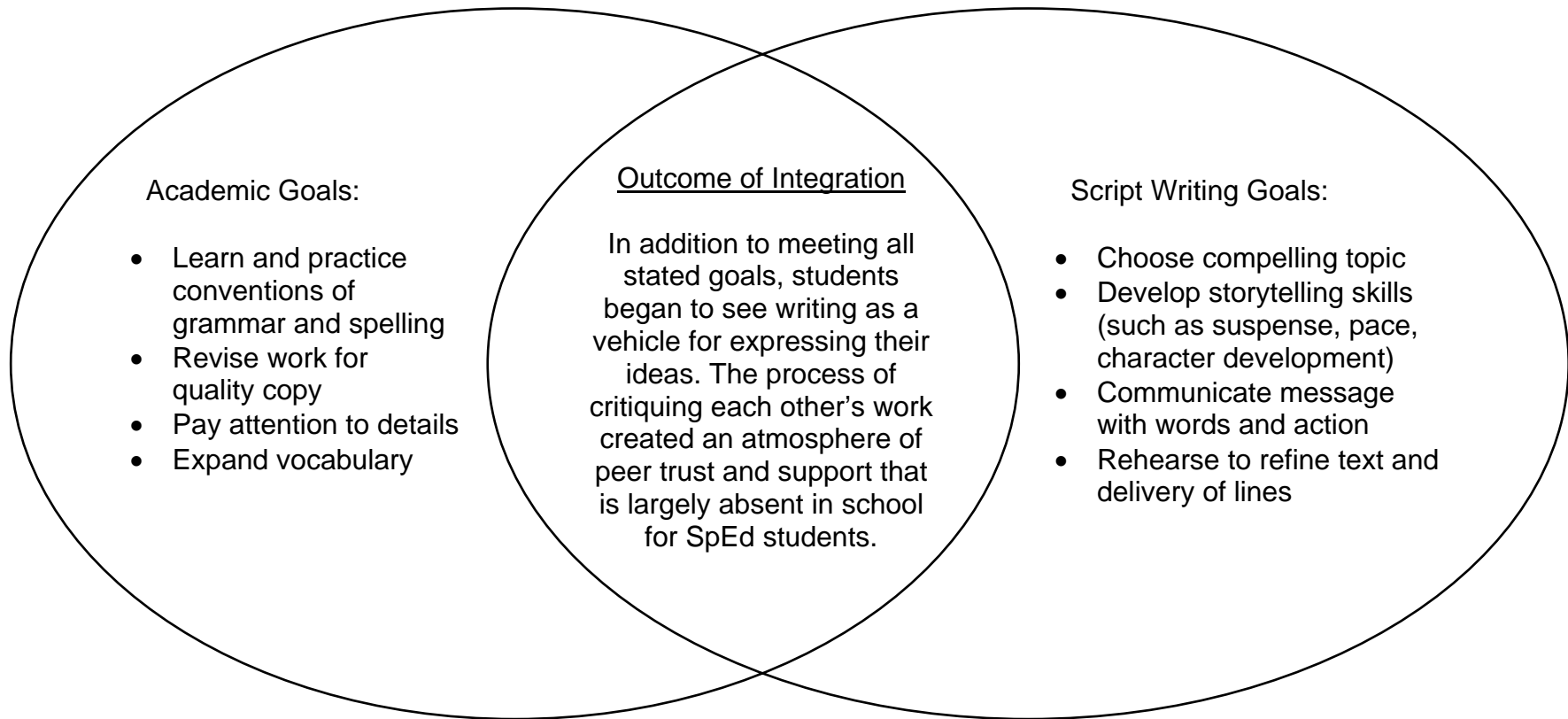
Williams and Newton continue, explaining that all arts practices engage practitioners in a continuous flow of creative problem solving, using multiple intelligence and full cognitive integration as the artist simultaneously considers visual, spatial, linguistic, emotional, relational, bodily kinesthetic, and communication problems to generate new ideas and create a product that will be useful in one or more cultural settings. Through this continuous flow of creative problem solving from multiple perspectives, using multiple intelligences, the pre-frontal cognitive base of creativity and problem solving is stimulated

to create new neural networks. This is how intelligence is built and, in this arts process, the ability to use multiple intelligences to creatively solve problems is enhanced. Because all problem solving is based on these primary cognitive processes, advances in the use of multiple intelligences, creativity and problem solving sustained through the arts are then transferable to other disciplines and problem solving situations.

By their very nature the arts engage students in a learning cycle that balances and enhances creative problem solving, planning, production, reflection, communication and performance. The process of making art enhances students' persistence, critical thinking, creativity and decision making in ways that are transferable to all academic pursuits, and are essential to success in school and life. It is not a surprise that arts integration strategies are grounded in theories such as Multiple Intelligences (Gardner), Habits of Mind (Kalllick and Costa), Visual Intelligence (Barry), and Omniphiasm and Integrative Mind (Williams, Newton). What all of these strategies have in common is a perspective of balance between learning and being. Theorists, dating back to Plato and Aristotle, have suggested that our culture and our educational system are out of balance toward the more analytical and rational processes of learning. ArtsWork for Education believes that arts integration is a critical instrument that will supplement our current educational model by balancing and enhancing students' multiple intelligences, creativity, decision making abilities, communication skills and, thus, their academic achievement and their potential for career and life achievement. We believe that the advantage of more balanced and enhanced life and work skills will facilitate the creation of a more balanced and sustainable global culture.

**For more information contact:**

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*“The students jumped at the chance to get their ideas on paper. I was amazed. When we started the project, I thought the idea of them writing scripts seemed ambitious. The brainstorming and trust exercises gave them a lot of self-confidence and when it came time to write, it was the only thing most of them wanted to work on. I had to remind them that they had other things to do, like study for a math test.”*

*– Ms. Coricello-McDowell, Special Education Teacher, North Eugene Academy of the Arts*



## The Integration of Arts and Academics: An Overview of Some Recent AWE Projects

Course: Academic Goals	Outcome of Integration	Art Discipline: Artistic Goals
<p>9<sup>th</sup> grade—science:</p> <ul style="list-style-type: none"> <li>• Gain a deeper understanding of Newton's laws of force, energy and motion</li> <li>• Increase communication and presentation skills</li> </ul>	<p>Students worked in groups to design and construct kinetic sculptures that demonstrated Newton's laws of physics. Each sculpture had to perform a function and had to reflect a unified aesthetic. Students had to have a clear understanding of the science to achieve their personal goals for the sculptures operation and appearance.</p>	<p>Sculpture:</p> <ul style="list-style-type: none"> <li>• Utilize basic design principles to convey a particular aesthetic</li> <li>• Understand and apply basic 3-D design techniques and principles</li> </ul>
<p>9<sup>th</sup> – 12<sup>th</sup> grade—early childhood development:</p> <ul style="list-style-type: none"> <li>• Move students beyond a text-book understanding of child development</li> <li>• Explore the topic of story and communication more deeply</li> <li>• Support a collaborative culture in the classroom</li> </ul>	<p>Students worked in small groups to adapt a children's book to a puppet play, which they performed for preschoolers. They constructed the puppets, backgrounds and props. At each step of the process, students were forced to evaluate their decisions based on what would be developmentally appropriate for their audience. Knowing they would be performing created an urgency to internalize and apply theories of early childhood development.</p>	<p>Puppetry:</p> <ul style="list-style-type: none"> <li>• Explore the history and background of puppet making</li> <li>• Understand the uses and techniques of different types of puppets</li> <li>• Develop skills in script development and performance for young audiences</li> </ul>
<p>9<sup>th</sup> grade—language arts</p> <ul style="list-style-type: none"> <li>• Emphasize the role that character perspective plays in a narrative</li> <li>• Engage students in a text that does not necessarily reflect their current reality</li> <li>• Help students develop skills for following cues to understand plot shifts in time and place</li> </ul>	<p>Students read <i>Snow Falling on Cedars</i>, which is typically difficult for freshmen to follow. Each received a quote relating to one of the characters. Students had to represent the perspective and motivation of that character using images they took. The project challenged students to look for evidence in the book for the ideas they wanted to portray and then to visually describe them. The process forced students to think deeply about the characters and put themselves in their shoes.</p>	<p>Photography:</p> <ul style="list-style-type: none"> <li>• Understand basics of camera operation, balance of light and composition</li> <li>• Explore difference between literal and figurative representation of meaning through photographic images</li> </ul>



## The Integration of Arts and Academics: An Overview of Some Recent AWE Projects ... *cont'd*

Course: Academic Goals	Outcome of Integration	Art Discipline: Artistic Goals
<p>10<sup>th</sup> – 12<sup>th</sup> grades—chemistry:</p> <ul style="list-style-type: none"> <li>• Gain a deeper understanding of the positive and negative ionic exchange involved in forming compounds</li> <li>• Expand knowledge of periodic table and apply that knowledge in different situations involving chemical processes</li> </ul>	<p>Students were assigned two elements that form an ionic bond. They chose a symbol (for example, a balloon for oxygen) to represent each element and sculpted and cast it. This project took an abstract concept that students usually struggle with and made it both tangible and memorable.</p>	<p>Sculpture:</p> <ul style="list-style-type: none"> <li>• Develop understanding of the limits and opportunities of clay modeling</li> <li>• Develop clay modeling skills to create small-scale, 3-dimensional sculptures</li> <li>• Understand and execute the processes for using clay models for plastic polymer casting</li> </ul>
<p>9<sup>th</sup> – 11<sup>th</sup> grades—language arts:</p> <ul style="list-style-type: none"> <li>• Develop an understand of different poetic forms</li> <li>• Practice creative expression and generate ideas through journal writing</li> <li>• Write a poem or prose on a topic with personal meaning</li> </ul>	<p>Working with peers in a music composition class, language arts students wrote poetry and prose and recorded them to create a “Word Jazz.” Asking students to perform their work (which was recorded on CD) and use theater techniques, challenged them to revise and refine their work with careful consideration for the message and audience. Position the written word as performance pushed students to be clear about their word and style choices.</p>	<p>Theater Arts:</p> <ul style="list-style-type: none"> <li>• Learn to use the voice as an instrument to communicate emotion and message</li> <li>• Learn to choose words for meaning, cadence and emphasis</li> <li>• Distinguish different demands of writing a piece that is primarily intended to be read or heard</li> </ul>
<p>10<sup>th</sup> – 12<sup>th</sup> grades—math:</p> <ul style="list-style-type: none"> <li>• Learn to find the scale factor between similar geometrical shapes</li> <li>• Use the Fibonacci sequence to generate the Golden Ratio</li> <li>• Explore the concept of symmetry of shapes</li> </ul>	<p>Students worked in groups to design a tile divided into four symmetrical sections, each section being a portion of the Golden Ratio. The project created opportunities for students to create new connections in the content, such as the Pythagorean Theory, shape relationships and shape similarity. These topics which are usually covered in separately came together in a new context through the work.</p>	<p>Tile making:</p> <ul style="list-style-type: none"> <li>• Understand the aesthetics of creating tiles with a unifying theme</li> <li>• Explore and apply math (scale, shrink rate, etc.) as it applies directly to sculpture</li> <li>• Learn how artists have historically used the Golden Ratio to create balance and focal point of interest in their work</li> </ul>

## Community Partner Collaboration Roles

*Community partners can play a variety of roles in the classroom. This tool describes common roles and includes skill areas that teachers might focus on in conjunction with the community partner work.*

<b>PARTNER ROLE</b>	<b>TYPICAL PARTNER ACTIVITIES</b>	<b>EXAMPLE</b>	<b>POTENTIAL TEACHER FOCUS</b>
<b>GUEST SPEAKER</b>	<ul style="list-style-type: none"> <li>▪ Visit the classroom for 1-2 hours</li> <li>▪ Show professional work</li> <li>▪ Speak on area of expertise</li> <li>▪ Lead an activity with students</li> </ul>	Architect spends a class period with a math class, showing slides of their work and discussing their training and the role of mathematics in their field.	<ul style="list-style-type: none"> <li>▪ Listening, observing, and questioning skills</li> <li>▪ Career preparation knowledge</li> </ul>
<b>AUDIENCE MEMBER/ EVALUATOR</b>	<ul style="list-style-type: none"> <li>▪ View final student products or performances</li> <li>▪ Provide feedback on student work</li> </ul>	Advertising professional attends exhibition of election videos and offers students verbal critique of each advertisement.	<ul style="list-style-type: none"> <li>▪ Using rubrics to evaluate work</li> <li>▪ Constructive criticism</li> <li>▪ Compare and contrast</li> </ul>
<b>WORKSHOP INSTRUCTOR</b>	<ul style="list-style-type: none"> <li>▪ Plan and facilitate workshops</li> <li>▪ Train students in a specific skill</li> <li>▪ Typically 3-5 sessions, 1-2 hrs. each</li> </ul>	Scientist teaches a workshop focusing on how to collect water samples in the field and how to log data of findings.	<ul style="list-style-type: none"> <li>▪ Habits of Mind:                             <ul style="list-style-type: none"> <li>• Persisting</li> <li>• Striving for Accuracy</li> </ul> </li> </ul>
<b>PROJECT MENTOR</b>	<ul style="list-style-type: none"> <li>▪ Assist individuals or student groups with design and production</li> <li>▪ Provide regular feedback throughout project</li> </ul>	Professional event planner meets with class four times over a two-month period and provides feedback on the design and development of a community "History Day" fair.	<ul style="list-style-type: none"> <li>▪ Reflection and metacognition</li> <li>▪ Effective communication skills</li> </ul>
<b>PROJECT CO-DESIGNER</b>	<ul style="list-style-type: none"> <li>▪ Work with teachers and/or students to plan a project</li> <li>▪ Help conceptualize the project and brainstorm academic integration</li> </ul>	Magazine photographer works with teacher and students to plan a new photojournalism project that incorporates concepts from social studies and science courses.	<ul style="list-style-type: none"> <li>▪ Project design skills</li> <li>▪ Brainstorming techniques</li> <li>▪ Proposal writing</li> <li>▪ Opportunity to increase core course content</li> </ul>
<b>GUEST PROJECT DIRECTOR/ PROJECT LEAD</b>	<ul style="list-style-type: none"> <li>▪ Lead all aspects of a classroom-based project: design, implementation, mentoring, assessment</li> </ul>	Local web designer is paid to lead a seven-week process of designing and developing websites for non-profit organizations in the community.	<ul style="list-style-type: none"> <li>▪ All aspects of the industry</li> <li>▪ Individual responsibility</li> <li>▪ Interdependence</li> <li>▪ Opportunity to increase core course content</li> </ul>
<b>ADVISORY BOARD MEMBER</b> <i>(non-classroom role)</i>	<ul style="list-style-type: none"> <li>▪ Attend monthly meeting</li> <li>▪ Assist with program development, help secure learning opportunities for students</li> </ul>	Local businessperson on Advisory Board shares the latest best practices in their industry with teachers, helps secure internships for students.	<ul style="list-style-type: none"> <li>▪ Teacher representatives sit on Advisory Board to share progress, learn from partners, get input on course content, and communicate program development needs</li> </ul>

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