

THE IMPACT OF ARTS AND CULTURE

# AGENDA:

PRE-K

greater  
philadelphia cultural  
**A**LLIANCE

## SUMMARY

# From our earliest ages, we learn through movement, sound and color.

What and how we learn as young children extends through elementary school and into adulthood, affecting even health and socioeconomic status. As policymakers focus on expanding quality Pre-K, it is increasingly apparent — through both academic study and experience in the field — that arts integration in Pre-K is key to its success.

**Agenda: Pre-K** is the first in a series of new advocacy tools that outline the impact of arts and culture not only on the economy but also on the issues that most affect our daily lives: education, wellness, social justice and more.

The Agenda series highlights existing research and resources that demonstrate the relevance and impact of arts and culture in Greater Philadelphia, throughout the Commonwealth and across the country.

## IMPACT: PHYSICAL

In a 2016 study by Dr. Eleanor Brown of West Chester University, students at Kaleidoscope, an arts-integrated Head Start program at Philadelphia's Settlement Music School, were found to have decreased levels of cortisol, the chemical that spikes when a child is exposed to toxic stress. Toxic stress can later lead to diabetes, high blood pressure, heart disease, incarceration, unemployment, poverty and disability.

**“Just as exercise builds physical fitness, music can ‘tone’ young brains & bodies.”**

*Source: Wolf, D., Why Making Music Matters: Singing, Playing, Moving, and Sharing in the Early Years.*

In combatting high cortisol levels and improving children's abilities to regulate stress, the Kaleidoscope program proves that the arts positively impact physical health in the Pre-K years and beyond.

**Scientific studies show that music, dance and visual arts classes significantly lower the toxic stress levels of children.**



*Photograph by Alexander Iziliaev, courtesy of The School of Pennsylvania Ballet*





## IMPACT: SOCIAL & EMOTIONAL

Mi Casita, a multiyear Spanish immersion preschool in Philadelphia's Fairmount neighborhood, practices project-based learning and integrates multimodal art education seamlessly into its Pre-K curriculum. A recent project shifted the focus from teaching art to developing artists by building literacy skills, studying music, touring local museums and exploring the culinary arts.

### Benefits of multimodal art education and multiyear

#### Pre-K include:

- More developed social and emotional skills<sup>1</sup>
- Higher achievements in language, literacy, science and math – regardless of racial, ethnic or developmental differences<sup>2</sup>
- Three times more growth in vocabulary<sup>2</sup>
- Increased school readiness and reduced chronic absenteeism<sup>3</sup>

Photograph courtesy of Please Touch Museum



**Pre-K arts students  
experience 60% more  
positive emotions:**

**INTEREST  
HAPPINESS  
+ PRIDE**

**that have a long-term  
impact on the child's  
ability to learn.**

Source: Brown, E. D., & Sax, K. L., *Arts Enrichment and Preschool Emotions for Low-Income Children at Risk*.

1 Menzer, M., *The Arts in Early Childhood: Social and Emotional Benefits of Arts Participation*.

2 Brown, E. D., Benedett, B., & Armistead, M. E., *Arts Enrichment and School Readiness for Children at Risk*.

3 Carolan, M., *Supporting Quality Across Preschool Programs: Balancing Quality and Access*.



## IMPACT: COGNITIVE

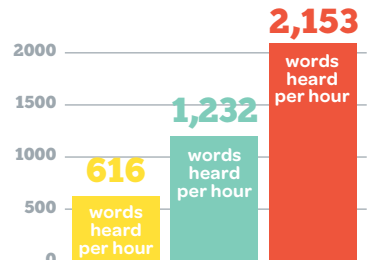
William D. Kelley Head Start in Strawberry Mansion and Porter's Day Care in Logan are part of the Delaware Wolf Trap program, which educates teachers in effective arts-integrated curriculum and provides quality performing arts experiences. Wolf Trap classrooms develop STEM skills and expand the received vocabulary necessary for success in elementary school.

Memory, problem solving and communication skills are improved through structured arts activities; cognitive abilities, including non-verbal IQ, numeracy, sequencing and pattern recognition, are improved through music and dance. **And the arts add up: after one year in a Wolf Trap arts-integrated classroom, students gained the equivalent of 1.3 months of STEM knowledge.** After two years, students gained an additional 1.7 months of STEM knowledge.

*Photograph by Carolyn Clement, courtesy of Mi Casita*

## CLOSING THE WORD GAP

**Music and lyrics help develop language and literacy skills and are vital to bridging the word gap that is often the key to later success in school.**

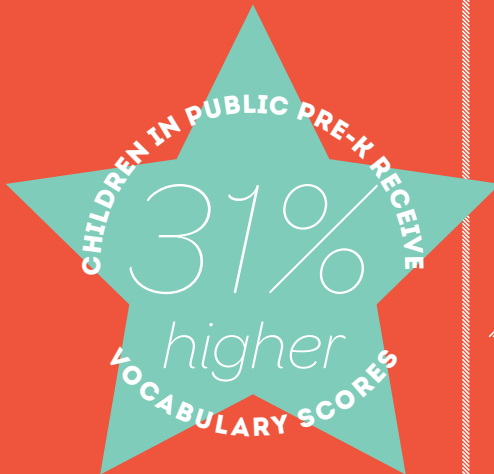


by average child in family on welfare  
by average child in working class family  
by average child in professional family

Source: Wolf, D., *Why Making Music Matters: Singing, Playing, Moving, and Sharing in the Early Years.*

## RESEARCH

# PRE-K MAKES THE DIFFERENCE:



THAT'S THE  
EQUIVALENT OF  
**4 MONTHS** OF  
EXTRA CLASS TIME



PRINT AWARENESS AND  
LITERACY\* INCREASE BY

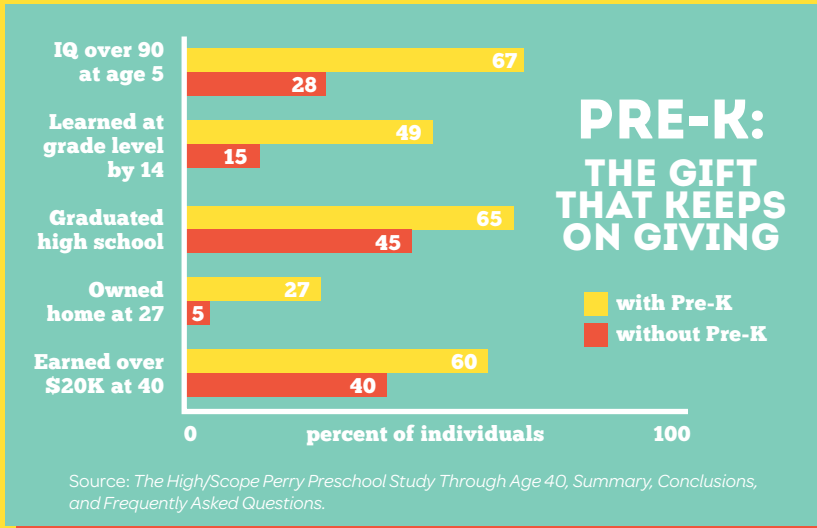
**85%**

\* These are key predictors of reading  
success in elementary school

**PUBLIC PRE-K STUDENTS  
SEE 44% MORE GROWTH  
IN IMPORTANT STEM  
SKILLS SUCH AS NUMBER  
CONCEPTS + ADDITION  
AND SUBTRACTION**

Source: Barnett, W. S., Lamy, C., & Jung, K., *The Effects of State Prekindergarten Programs on Young Children's School Readiness in Five States.*

**MORE INFORMATION, CITATIONS + RESOURCES ► [PHILACULTURE.ORG/PREK](https://philaculture.org/prek)**



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## PROJECT PARTNERS



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