

# early childhood STEM LEARNING through the arts WORKS



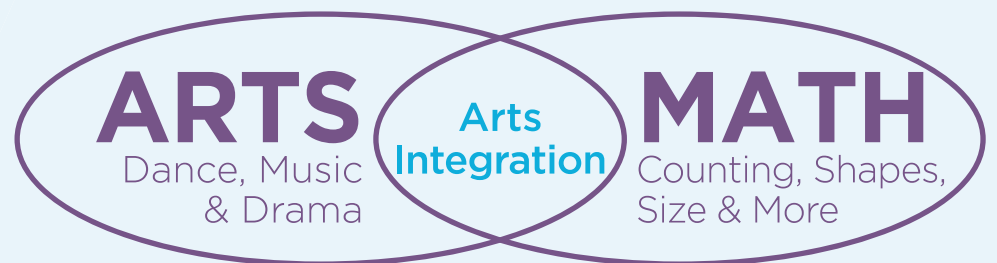
Wolf Trap students have  
**HIGHER**  
math achievement<sup>1</sup>

**EARLY MATH SKILLS**  
are the strongest predictor  
of later academic achievement<sup>4</sup>

## IT WORKS!

Wolf Trap's model increases an average student's math rank by **7-8 PERCENTILES**<sup>2</sup>

**WHY**  
CHILDREN LEARN BEST BY  
**DOING** - the arts and STEM  
are natural partners



**RHYTHMS/PATTERNS=PRE-ALGEBRA**



## HOW

Each teacher receives up to **101 HOURS** of PROFESSIONAL DEVELOPMENT

Teacher  
+ Wolf Trap Teaching Artist  
+ Wolf Trap Professional Development

**BETTER MATH KNOWLEDGE**

Wolf Trap teachers scored **62% HIGHER** on overall arts integration measures, and 150% higher in linking arts with math<sup>3</sup>

## The Wolf Trap APPROACH



of classroom residencies with **WOLF TRAP** teaching artists



Teacher training, teacher and teaching artist **COLLABORATION**



INSTRUCTIONAL content aligned **TO NATIONAL AND STATE STANDARDS**



**28**  
**STATES**  
INCLUDING 17 **AFFILIATE SITES**



**WOLF TRAP**  
FOUNDATION FOR THE PERFORMING ARTS

**SOURCES**  
1. Interpretations derived from results of a four-year study of Wolf Trap's Early Childhood STEM Learning Through the Arts. Ludwig, M. and Song, M., (2014). "Final Report: Findings from the Evaluation of the Wolf Trap Arts in Education Model Development and Dissemination Grant," American Institutes for Research.  
2. Ibid. Based on effect sizes of .17 in first year, and .21 in second year of Wolf Trap program. See pg. 16.  
3. Ibid. See pg. 16, Exhibit 9.  
4. Duncan, G. J., Dowsett, C.J., Classens, A., Magnuson, K., Huston, A.C., Klebanov, P., et al. (2007). School readiness and later achievement. *Developmental Psychology*, 43, 1428-1446.