

## Turning STEM into STEAM – How to Integrate the Arts into Traditional STEM Activities

### Topic Information

This topic will begin with a typical STEM activity for participants to participate in example: NASA Resource, Rubber Band Helicopter Engineering Challenge (National Aeronautics and Space Administration, 2020). Once this project is completed, additional resources will be shared which are relevant to other disciplines such as reading the children’s version of Hidden Figures in language arts class and then completing NASA Resource, Make a Paper Katherine Johnson Doll (National Aeronautics and Space Administration, 2020) and learning about African-American astronauts in social studies class and then using NASA Resource, Printable Puzzles About African American Astronauts (National Aeronautics and Space Administration, 2020).

Once these examples have been shared, discuss how an artistic aspect can be added to each lesson. With the Ingenuity helicopter activity, videos of the vehicle in flight can also be added.

### School Information

Carson Montessori School is a public charter school in Northern Nevada. This school has been designated as a “developing” STEM school by the Governor’s STEM Advisory Council. The school operates with a hands-on approach to real-world learning, presenting students with problem-based projects in order to allow depth of thought and real-world applications of ideas.

### Participants

This training should include all educators and staff members as artistic expression can be utilized everywhere, even when experiencing playground conflict or office interaction with students.

### Standards

To be addressed

### Data Gathering Methods

Pre-presentation survey

Mid-presentation survey

Post-presentation survey

## References

## HamiltonLeadershipPDPProposal

National Aeronautics and Space Administration. (2020). *Classroom Combo: Flying With Ingenuity*. Retrieved from NASA STEM Engagement: <https://www.nasa.gov/stem-ed-resources/flying-with-ingenuity.html>

National Aeronautics and Space Administration. (2020). *Make a Katherine Johnson Paper Doll*. Retrieved from NASA STEM Engagement: <https://www.nasa.gov/stem-ed-resrouces/make-a-katherine-johnson-paper-doll.html>

National Aeronautics and Space Administration. (2020). *Printable Puzzles About African American Astronauts*. Retrieved from NASA STEM Engagement: <https://www.nasa.gov/stem-ed-resources/printable-puzzles-about-african-american-astronauts.html>