PAR EXCELLENCE STEM ACADEMY 24-25 School Year

21st Century Community Learning Center Afterschool Program

Project-based Learning

Theme: Mission: Up, Up and Away

Project-based learning focus: Life Science & Biomedical

Core STEM Projects (2nd-6th Grade)

- *Ohio Science Academy*
    - September- January
        - **STEM Focus:** Engineering Technology: Statics and Dynamics
            - **Project topic:** Accessible playground and adaptable furniture
                - *Problem:* There is a lack of adaptive spaces and equipment for those with limited mobility
                - *Objective:* Scientist, this mission will require you to take a look at everyday items like chairs, tables, crutches, and wheelchairs.
                - *Why?* The mission would be to think about how we use our arms and legs to help grant us mobility.

- **STEM Focus:** Plant Sciences
    - Project topic: Improvement of food quality for Astronauts
        - *Problem:* Scientist are tasked with creating or improving the food for astronauts.
        - O*bjective*: They will prepare a full day's meal- breakfast, lunch, dinner, snack, beverages for each meal)
        - *Why?* There is always room for improvement with systems that are in place. Scientists are always looking for ways to create new systems and methods for improving things that are in place.
- Competition submission date: Friday, January 17th

- *The Works STEMfest*
    - February- March
        - Topic: TBD
        - Submission: First week of March

- **Project Lead the Way**
    - March-May
        - Biomedical

Core STEM Projects (Kindergarten-1st Grade)

- **PBS- Camp in the Box**
    - September-November
        - Be Creative!

- Five hands-on sessions will allow everyone to explore different types of creativity, from art and origami to music and math.
- January-February
  - Dream Big!
    - The future is a big concept for young students, but so are their dreams for that future. This camp provides opportunities to explore careers and financial literacy while practicing literacy skills and exercising creativity

- **Project Lead the Way**
  - March-May
    - Biomedical

Supplemental Materials/ Additional Enrichment

- Night Zookeeper- Reading
  WriteBrain
- Zearn Learning- Math
- Intel Future Skills
  - ScribbleBot
  - Lunar Lander