

INSPIRE - ENGAGE - EDUCATE - EMPLOY

The Next Generation of Explorers



NASA ADVISORY COUNCIL STEM ENGAGEMENT COMMITTEE

NextGen STEM Update

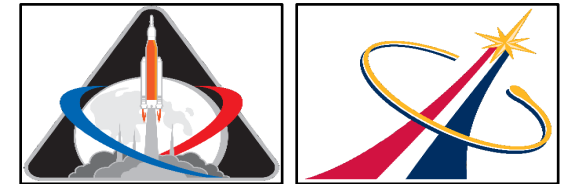
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NEXTGEN STEM CHANGES INITIATED IN FY2018

- ✓ Revamped approach for Informal Solicitation
 - ✓ Focus on two **Agency themes**
 - ✓ Required involvement of affiliate networks of partners to expand reach
- ✓ Initiated proof-of-concept pilot activities
 - ✓ Focus on two themes above plus an additional **Agency theme**
 - ✓ Aligned to evidence-based education strategies
 - ✓ Work assigned based on Center skills and capabilities
- ✓ Sunsetting SEAP activities no longer in alignment with new approach to STEM Engagement
 - ✓ Insuring systematic process to capture performance, key accomplishments, and findings

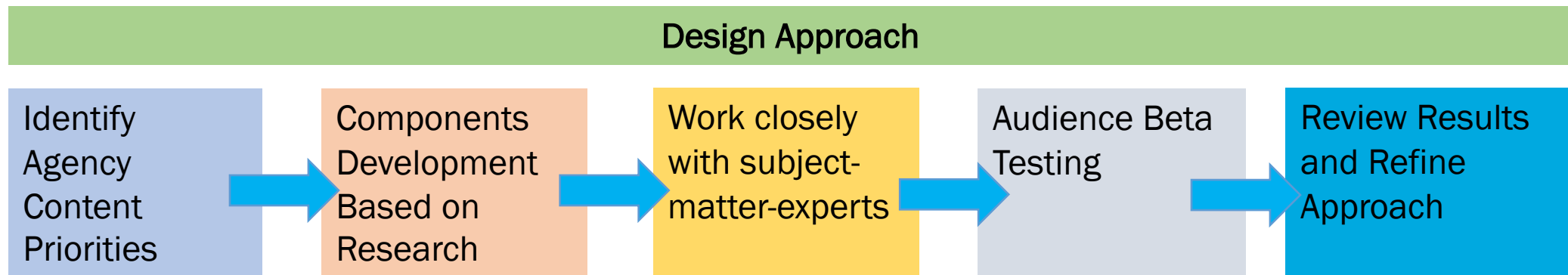
THEMES

- Small Steps to Giant Leaps: Looking to the Future of NASA Aeronautics Innovation
- Moon to Mars: Human Exploration Beyond Low Earth Orbit
- Development of Commercial Crew Program Capabilities



NEXTGEN STEM PILOT ACTIVITIES

- ✓ Suite of evidence-based pilot activities to engage middle school students in mission content
 - ✓ Sustained Engagement experiences with Authentic Content (Citizen Science, Design Challenges)
 - ✓ Hand's on Inquiry Based Experiences
 - ✓ Interaction with Digital Resources and Social Media
 - ✓ Educator Support Materials
 - ✓ Partner Driven Collaborations for Implementation
 - ✓ Leverage existing Agency STEM Engagement resources

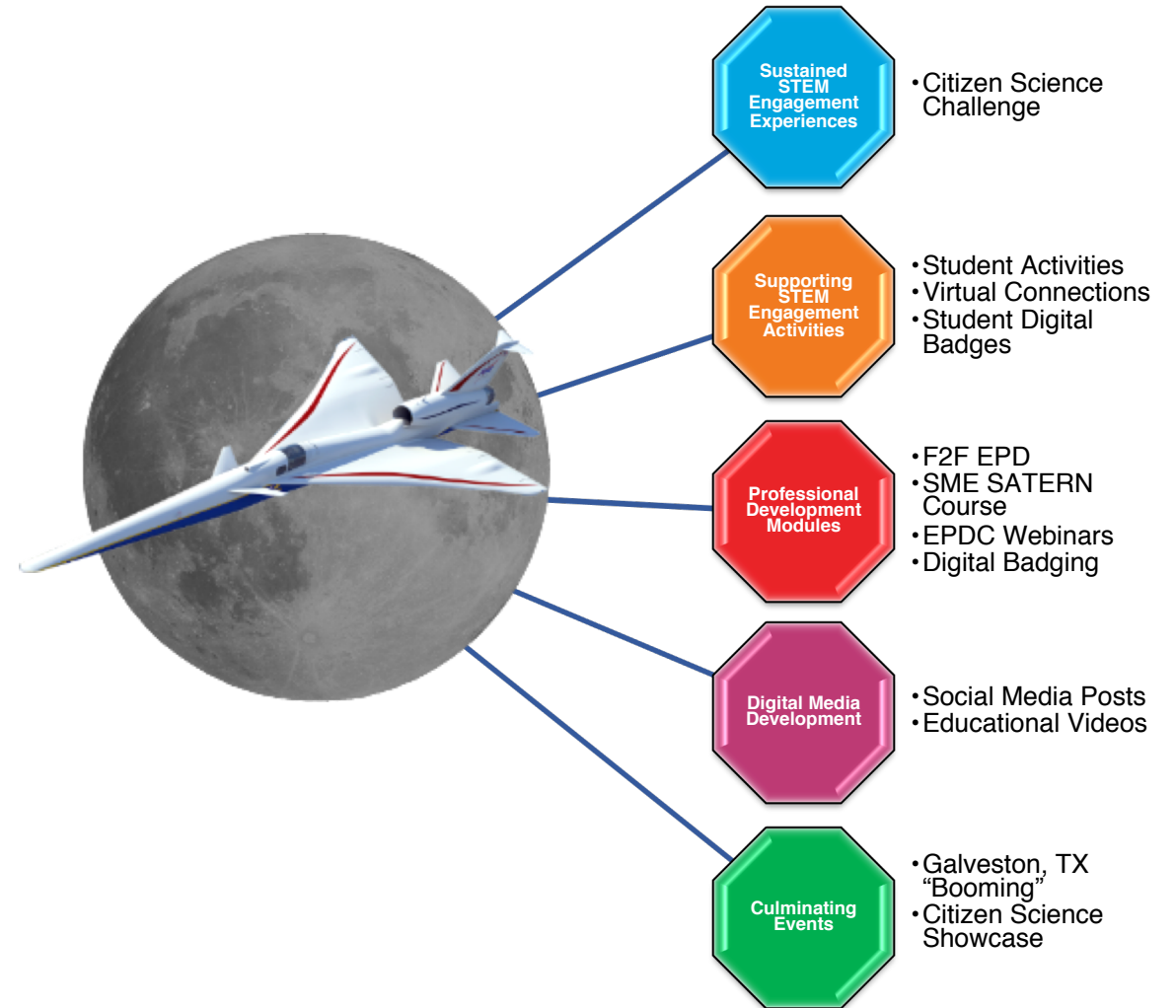


NEXTGEN STEM PILOT ACTIVITY 1

Small Steps to Giant Leaps:

A focus on the Future of NASA
Aeronautics Innovation
Quiet Supersonic Flight– X-59
QueSST

Lead Center: Armstrong
Teaming Centers: Glenn, Langley



NEXTGEN STEM PILOT ACTIVITY 2

Developing Commercial Crew Program Capabilities

A Focus on Human Spaceflight to Space Station with our Commercial Partners

Lead Center: Kennedy
Teaming Centers: Johnson, Langley



Sustained STEM Engagement Experiences

- Engineering Design Challenges
- Coding Opportunity

Supporting STEM Engagement Activities

- New and refreshed STEM content for K-12
- Incorporates reading and writing
- Student Digital Badges

Professional Development Modules

- Teachers guides
- Virtual and experiential opportunities
- EPDC Webinars
- Digital Badging

Digital Media Development

- CCP App
- New VR content
- Virtual field trips with access to NASA and partner facilities

Culminating Events

- 2019 Crew Launches

NEXTGEN STEM PILOT ACTIVITY 3

Moon to Mars: *A Focus on Transportation Systems for Moon to Mars Missions*

Lead Center: Johnson
Teaming Centers: Marshall, Stennis, Langley

