

## NASA Education Outcome and Objective Hierarchy

### Outcome 1

**Higher Education – Employ and Educate:** Contribute to the development of the STEM (Science, Technology, Engineering, Mathematics) workforce in disciplines needed to achieve NASA’s strategic goals, through a portfolio of investments.

#### **Objective 1.1 Faculty and Research Support (Employ)**

Provide NASA competency-building education and research opportunities for faculty, researchers, and post-doctoral fellows.

#### **Objective 1.2 Student Support (Educate)**

Provide NASA competency-building education and research opportunities to individuals to develop qualified undergraduate and graduate students who are prepared for employment in STEM disciplines at NASA, industry, and higher education.

#### **Objective 1.3 Student Involvement, Higher Education (Educate)**

Provide opportunities for groups of post-secondary students to engage in authentic NASA-related mission-based research and development activities.

#### **Objective 1.4 Course Development (Educate)**

Develop NASA-related course resources for integration into STEM disciplines.

**Objective 1.5 Targeted Institution Research and Academic Infrastructure (Employ)** Improve the ability of targeted institutions to compete for NASA research and development work.

### Outcome 2

**Elementary and Secondary Education – Educate and Engage:** Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers and faculty.

#### **Objective 2.1 Educator Professional Development – Short Duration (Engage)**

Provide short duration professional development and training opportunities to educators, equipping them with the skills and knowledge to attract and retain students in STEM disciplines.

#### **Objective 2.2 Educator Professional Development – Long Duration (Educate)**

Provide long-duration and/or sustained professional development training opportunities to educators that result in deeper content understanding and/or competence and confidence in teaching STEM disciplines.

#### **Objective 2.3 Curricular Support Resources (Educate and Engage)**

Provide curricular support resources that use NASA themes and content to a) enhance student skills and proficiency in STEM disciplines; b) inform students about STEM career opportunities; and c) communicate information about NASA’s mission activities.

#### **Objective 2.4 Student Involvement, K-12 (Engage)**

Provide K-12 students with authentic first-hand opportunities to participate in NASA mission activities, thus inspiring interest in STEM disciplines and careers, as well as provide opportunities for family involvement in K-12 student learning in STEM areas.

### **Outcome 3**

**Informal Education – Engage and Inspire:** Build strategic partnerships and linkages with STEM formal and informal education providers that promote STEM literacy and awareness of NASA’s mission.

**Objective 3.1 Resources (Engage and Inspire)** Provide informal education resources or tools that use NASA’s unique content to connect NASA’s missions to self-directed learners or to attract or retain individuals to STEM careers.

**Objective 3.2 Professional Development for Information Education Providers (Engage)** Provide informal education that improves competency to embed NASA expertise, content, or STEM career development among those professionals and individuals who create or offer local, regional or national NASA-themed educational activities or exhibits.