

Activities of JAXA Space Education Center:

Achievements & Perspectives for International Cooperation

**Presentation by Space Education Office
Japan Aerospace Exploration Agency (JAXA)**

**The 49th Session of the Committee on the
Peaceful Uses of Outer Space
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Goals of Space Education Center

Space education:

Development of human resources through pursuing truths and taking up challenges in the universe

Goals:

1) Nurture young people to acquire insights and develop a vision

→ Share the excitement of solving the mysteries of the universe and learning more about achievements in space activities.

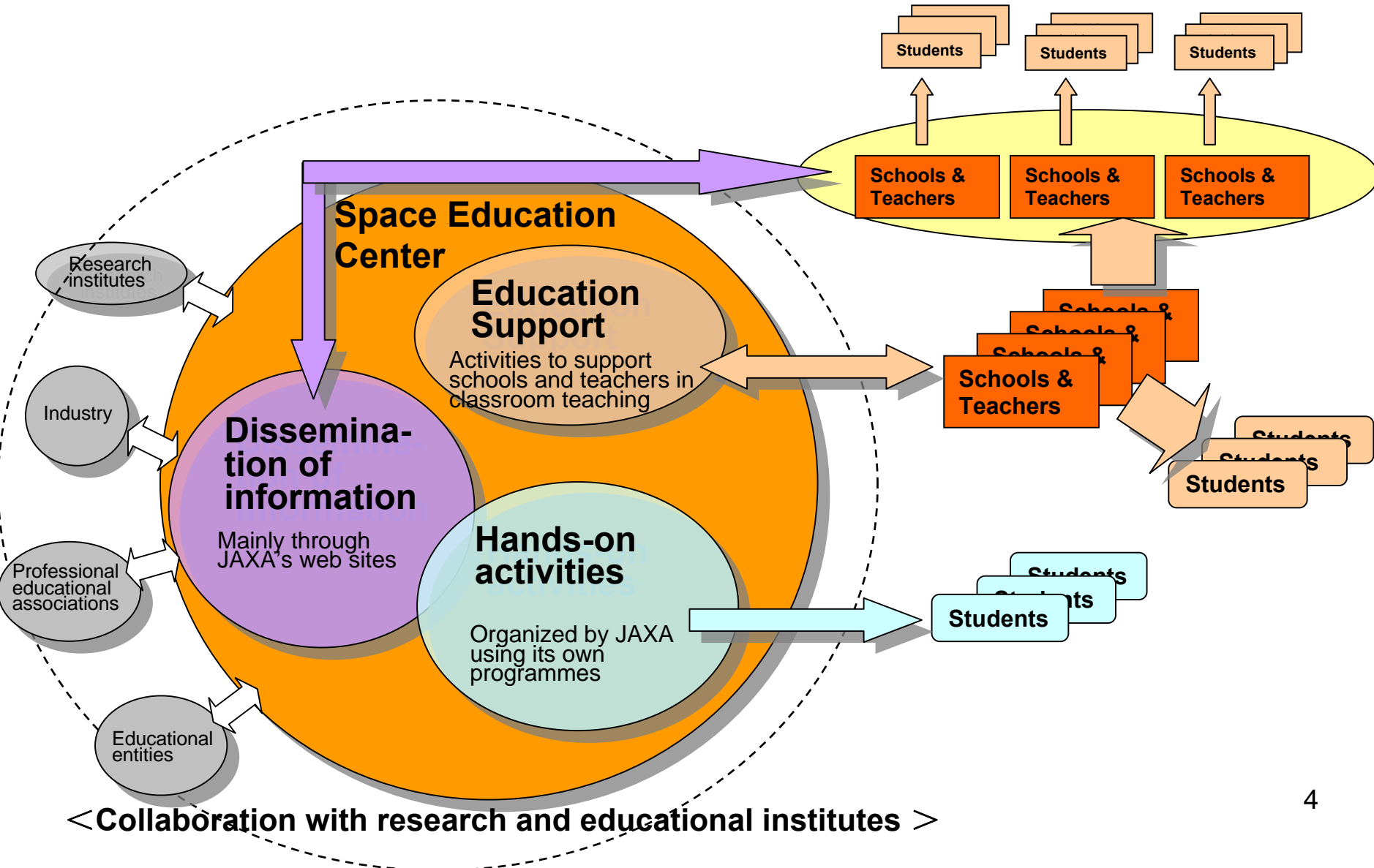
2) Contribute to building the prosperous society

→ Share with the public the knowledge and skills acquired through the use and exploration of space.

Principles of JAXA Education Activities

- ① Understanding of the thinking process behind the knowledge
 - ☆ Joy of exploring mysteries of life, the nature and the universe
 - ☆ “ Importance of life”
- ② Increasing appreciation of “Science and Technology”
 - ☆ Important process of the development of a human being
 - ☆ Mastering the logical thinking process
 - ☆ Spirit of “Never Give Up”
- ③ Understanding the importance of contributing to building better future
 - ☆ Responsibility as a member of the society

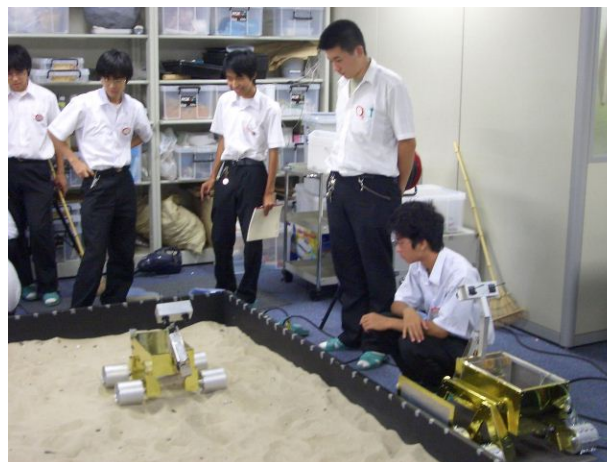
Priority Activities of the Space Education Center



Education Support Activities

Supporting classroom teaching by working closely with schools and teachers

	Elementary School	Junior-High School	High School
FY16 (04-05)	0 School (0 student)	2 schools (ca. 180 students)	7 schools (ca. 210 students)
FY17 (05-06)	1 school (30 students)	5 schools (ca. 1200 students)	14 schools (ca. 360 students)



Hands-on Training Activities: Achievements in FY 2005 (April'05-Mar'06)

Structure of the Cosmic College

•To be considered
in the future.

Educator course

3 day course
(70 people)

1-day course
(ca. 280 people,
6 events)

University
students

Master course
(40 participants,
1 event)

**Advanced course (65
participants, 1 event)**

Fundamental course
(565 participants: about 50
participants each for 10 events)

**Kids course (600 participants: about 100
participants each for 6 events)**

•To be organized in Tsukuba (26-28 March 2006);
•A three-day course for 3rd year junior high-school to 2nd year high-school students

•Organized in August 2005 in Tsukuba.
•Six-day course (no tuition fee; participation fee = 28,200 Japanese yen, or 260 U.S. dollar).
•62 participants from the 6th-year students of primary schools to the 3rd-year students of lower secondary school who have completed "Fundamental course".
•Course programme: technical subjects relevant to space science and technology and their applications; science as encountered in daily lives.

•Organized at 10 sites in Japan.
•One-day course (no tuition fee; no participant fee).
•50 participants ranging from the 5th-year students of primary schools to the 2nd-year students of lower secondary schools at each event.
•Course programme: lectures and scientific experiments relating to ,e.g. theory of rocket science and space environment.

•Organized at 6 sites in Japan.
•One-day course (no tuition fee; no participation fee).
60 participants ranging from the 1st to 4th-year students of primary schools and their parents at each event.
•Course programme: mythologies associated with constellations and handicraft class with the participation of both children and their parents.



Hands-on Activities “Cosmic College”



- To increase interest in science & technology
- To help form groups of young people fond of science and technology
- To guide young people to think and solve questions by themselves
- To encourage collaborations with others
- To lead young people to appreciate the importance of life



Restructuring “Cosmic College”

Education Support
(teachers/leaders)



Hands-on training

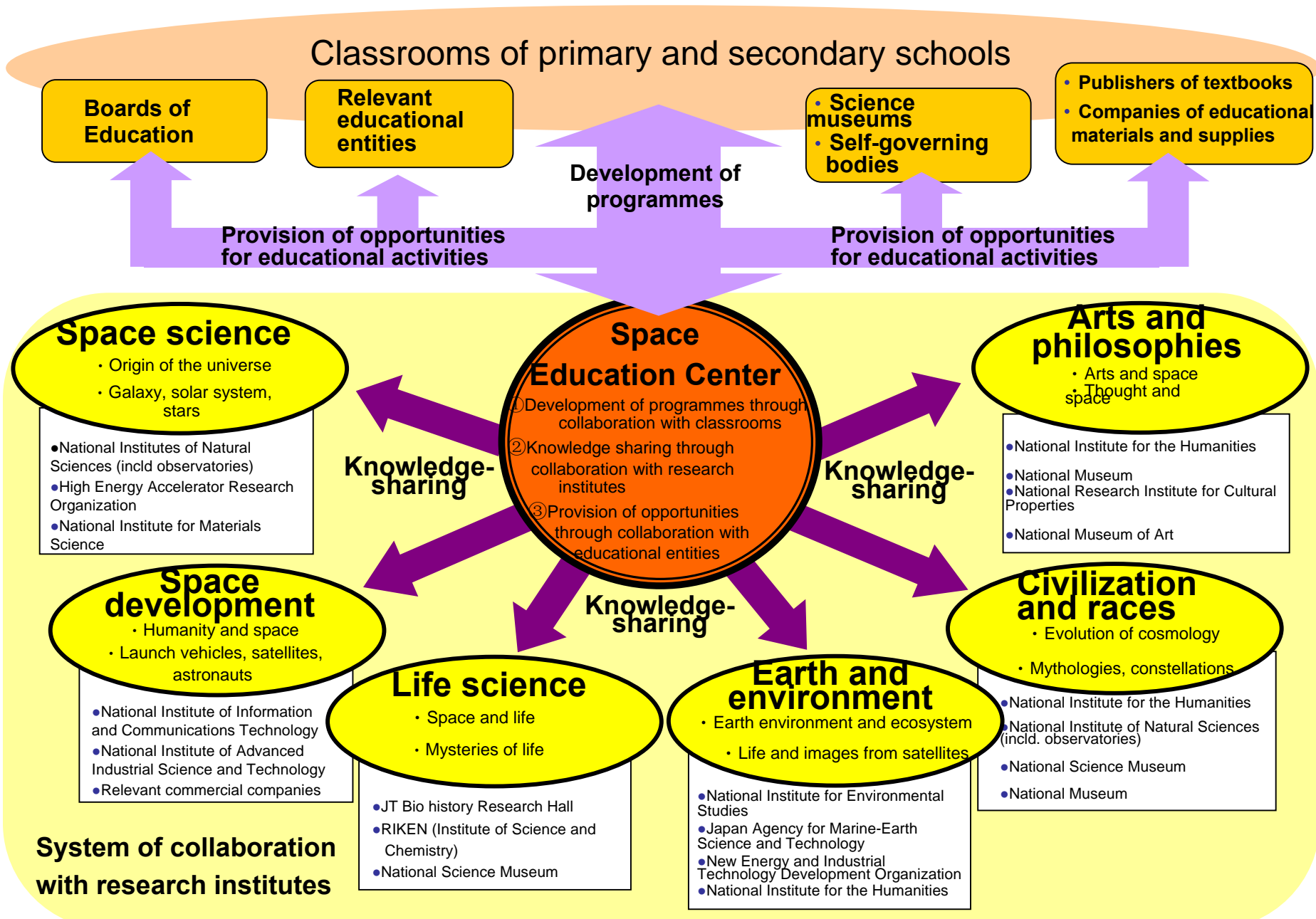


Leaders Seminar and Training
(Certificates for teachers and
leaders)

“SPACE SCHOOL”
(Correspondence course)

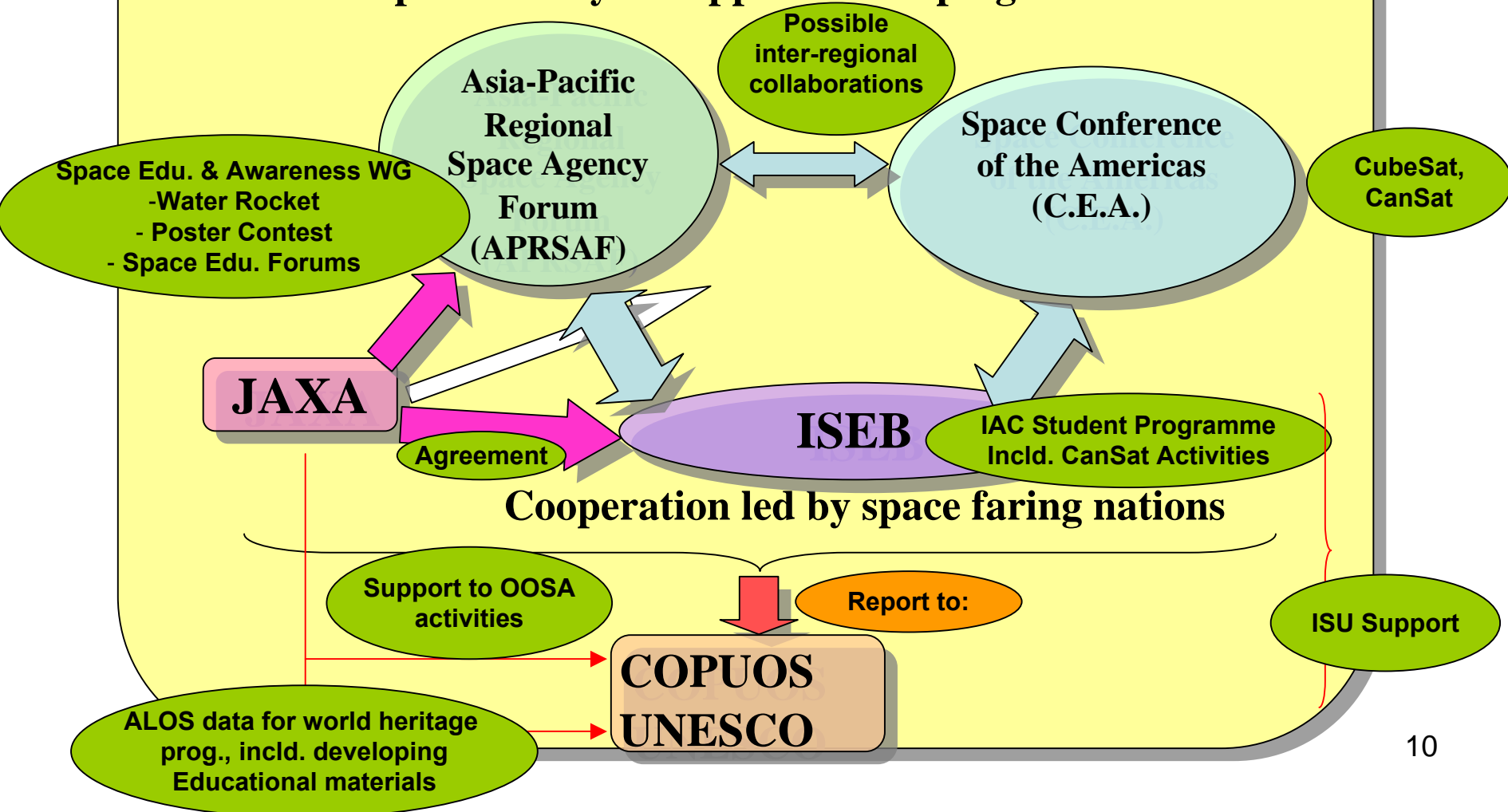
New Cosmic College
(Home learning + Schooling)

Education support system



Approach for international cooperation in space education

**Collaborations with space faring countries,
particularly to support developing countries**



International Cooperation through Space Education: Global Framework

★International Space Education Board (ISEB)

☆Initiative by advanced spacefaring countries: CSA, ESA, JAXA, NASA

- Established on 17 October 2005 to:

- i) increase science, technology, engineering and mathematics literacy achievement in connection with space;
- ii) support the future workforce needs of space programs



International Cooperation through Space Education: Global Framework



International Cooperation through Space Education: Regional framework



International Cooperation through Space Education: Regional framework

★ Cooperation with other regions through their focal points

- . Project/Activity-based

- . In response to requests, offers of opportunities/invitations

☆ European Space Agency

- “Science on Stage”: exchange of teaching methods among teachers

☆ Space Conference of the Americas

- Support organizing hands-on activities, e.g. water rocket activities

- Assist in linking Japanese universities with space education activities

with interested entities in Latin America (e.g. Cubesat)

- Providing advice on introducing space education activities



International Space Education and Training Opportunities

★International Astronautical Congress (IAC)

☆Student and Youth Participation Program

- Support to the winners of Asian round of IISL Space Law Moot Court Competition**
- International Student Zone (ISZ)**
- CanSat Activities**

★International Space University (ISU)

☆JAXA Fellowship

- Summer Session Program (SSP)**
- Master course programs (MSS/MSM)**

Realigning International Activities

- ✓ **More links with the Center's efforts to train leaders and teachers to carry out space education activities**
 - **Fellowships for ISU Programme Participants**
 - **Selection of students for IAC Student Programme**

- ✓ **More focus on activities that could support the existing frameworks for cooperation: UN/OOSA, UNESCO, ISEB, APRSAF, ESA, C.E.A., etc.**
 - **Supporting UNISEC activities (e.g. CanSat)**
 - **Disseminating instructive materials in demand (e.g. DVD on Water Rocket Activities)**
 - **Disseminating the compilation of samples of hands-on experiments**



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