



UNISPACE+50 Symposium

Space and Youth

- Past, present and future importance
of Space for youth -

June 19th 2018 @Vienna International Centre, Vienna, Austria

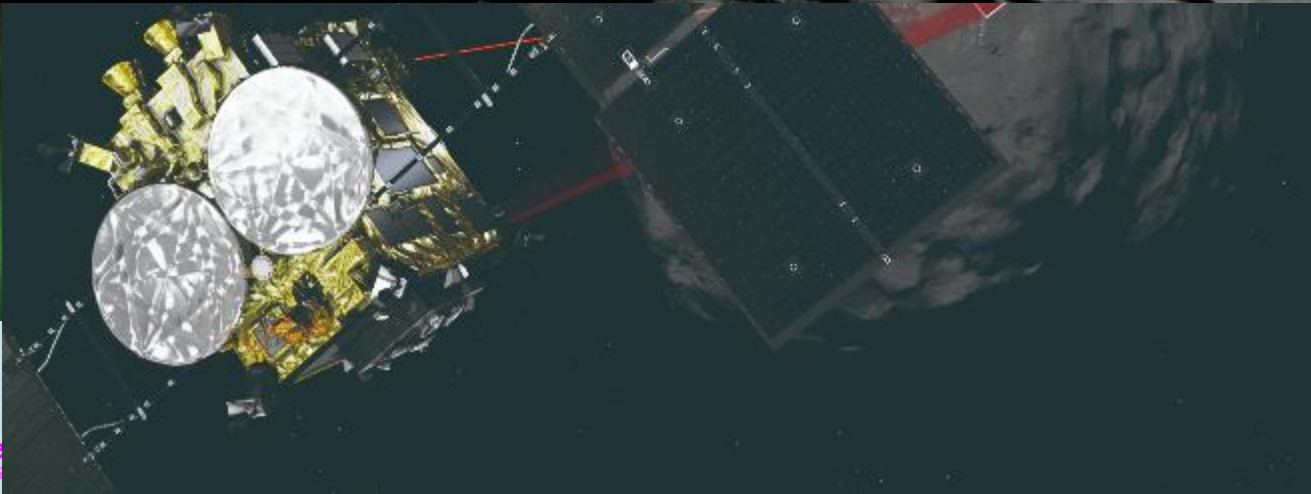
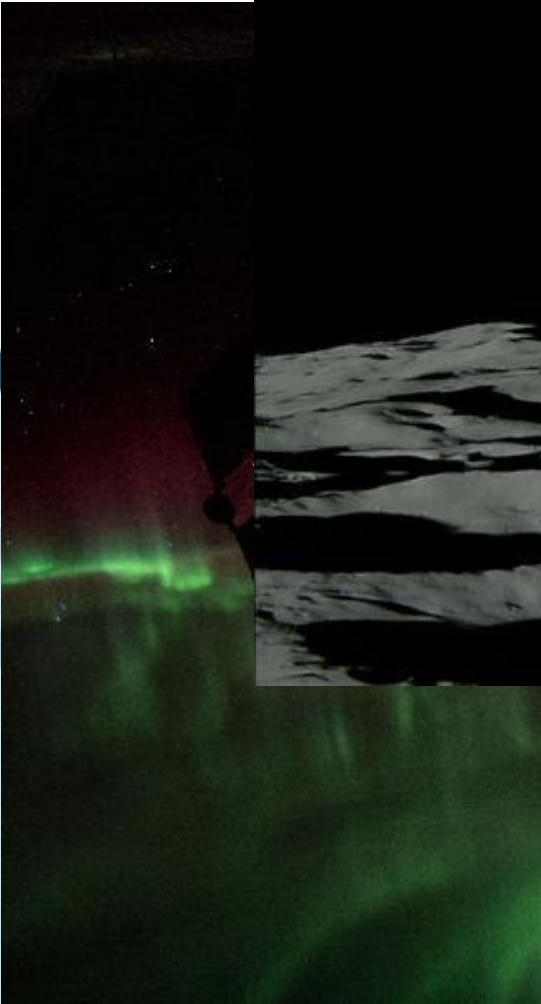
Ms. Kaori SASAKI, Manager

JAXA Space Education Center

About Space Education

Space Based Education

- ▶ **About space** education for future workforce of space community (i.e. Industry/Business, Academy, Government)
 - ▶ Acquisition of expertise and knowledge
 - ▶ Space science, technology, engineering and math (STEM)
- ▶ **Space based** education for all human to be equipped with social literacy
 - ▶ Ability to find own subject and to cope with it
 - ▶ Ability to leverage lessons learned
 - ▶ Attitude to continuous learning



Scope of Space Education



- ▶ Space is not only the place or phenomenon of outer the atmosphere
- ▶ Surrounding natural environment, such as weather, plants or animals, is the material for space education
- ▶ Lights of the stars are the long past days of lights
- ▶ Ancient Chinese thought form “Enanji” (approx. BC150), all of time (past, present and future) and all of expanse (up/down, right/left, NSEW) is the “UCHU” (space, cosmos, universe...)

宇宙



Program – Space School for Families –

- ▶ We consider the children initial school age (5+ years old) can take the first step of space education
- ▶ They firstly learn things from families
- ▶ JAXA support local entities to host Space School for Families for local families
- ▶ Main participants are pairs of 5-10 years old children and their guardians(parents)
- ▶ They work together at home and join schoolings (2-3 times per a year)
- ▶ Closing event with home project presentations by every child

What happens...



Analysis and Outcomes

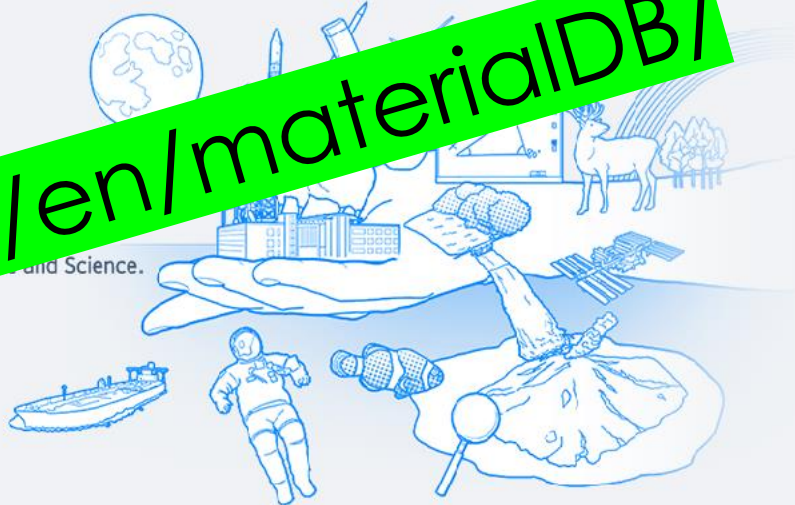
- ▶ “ Some experiments were not easy but fun! ”
- ▶ “ We had some try and error but could feel achievements, share experiences and proud of children's' every effort”
- ▶ Families with Dialogical Communication style
 - ▶ Encourage proactive behavior of children
- ▶ Families with Instructional Communication style
 - ▶ Wait for commands instead of using their initiative

→ edu.jaxa.jp/en/materialDB/

Home Search by category Enter keywords Recommended Keywords

Space Education materials
ignite the Passion in
Children's Hands
Let's use various Science and Science.

Search by category
Search by field and/or method



<http://edu.jaxa.jp/en/materialDB/>

Create Space Education
resource library? (one stop online)
To share educational materials
with all nations!

...d that flies like a glider

Things you'll need:


- Paper for folding (try using different sizes and thicknesses of paper to find the paper that flies the best)

The photograph on the cover gives a hint for the size of paper that flies well!

5: Fold again

Let's see if it flies!

You fly it by holding the back, then just letting go!



with Steam Powered Boats

Let's have Fun with a Jumping Frog Toy

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of materials	10	15	20	25	30	35	40	45	50	55
Number of users	100	150	200	250	300	350	400	450	500	550

Let's have Fun with a Jumping Frog Toy

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of materials	10	15	20	25	30	35	40	45	50	55
Number of users	100	150	200	250	300	350	400	450	500	550

Space Education Programs by JAXA

	Elementary school	Junior-high school	Highschool	University/ Graduate school	Local public entity/community
Informal Education	<p>Cosmic Collage (3rd graders – junior high students)</p> <p>Space School for Families (Children and parents)</p>		<p>Kimission*¹ (students)</p> <p>Aerospace School (students)</p>		<p>Collaborate with science museums & local communities</p> <p>Educator seminar (collaborate with local public entities)</p>
Formal Education	<p>Teachers' development and classroom partnership</p>	<p>Teachers' development and classroom partnership</p>	<p>Teachers' development and classroom partnership</p>		<p>Educator professional development (collaborate with local education boards)</p>
International engagement	<p>APRSAF*² Poster Contest (8-11 years old)</p>	<p>APRSAF Water Rocket Event and educator workshop (12-16 years old and educators)</p>		<p>ISEB*³ student program (under graduates and graduates)</p>	<p>APRSAF SEWG annual session</p> <p>APRSAF Educator Seminar (co-organize with space agencies)</p>
Content publishing	<p>Website, SNS, magazine, Space Education TV, workbooks and learning materials</p>				

*1 ... Kimission: Means "Your own Space Mission", *2 ... APRSAF: Asia-Pacific Regional Space Agency Forum, *3 ... ISEB: International Space Education Board



Visit us at:

<http://edu.jaxa.jp/en/>



9

Thank you very much for your attention.