"Gateway to Thinking"- TelePortal for Education Monthly Tour #1 - Solar system and galaxies tour -



- Date & Time: 8th May (Fri), 2020 at 7 am PDT/ 14:00 GMT/ 23:00 Japan

- **Tour Guide**: Hajime Nishimura (Yan Laria in SL/OpenSim), アカーシャ (AkashaKokuu), Abyss Observatory,

- Location: Start from Library Land (CVL), Cookie http://maps.secondlife.com/secondlife/Cookie/81/85/21

- Participants:

Bethany (BethanyTheVirtualVersion), Delia Lake, Elle Thorkveld, Maria Concepcion Pomar Rossello (Cwyt), FionaFei, gJadë Reynolds g (JadeTyler), Peter from New York (PeterFromNewYork), Sheila Yoshikawa, Solar Sierra, ThinkererSelby Evans (Thinkerer Melville)

- Organizer: Valibrarian Gregg, Community Virtual Library

- Abstract

"Gateway to Thinking", named by ThnkererSelby, is a TelePortal for Education.

There are two types.

One is only one prim TP hub system including more than 300 destinations from science to humanity. People can get this system in free and rez own parcel, and destinations are remotely updated. But it is not friendly for teachers and students.

So I made a visible version. 100 TP boards are arranged on the ground and the upper floor in

accordance with their categories. So I need to select destinations and put them together within about 100.

Each of TP board displays 512x256 snapshot of destination. When you touch one of the board, brief explanation, location of destinations and location of return point are displayed in near-by chat. People can TP and back by clicking location in near-by chat.

At the first day, I'll explain how to use and arrangement of TP boards, and take you to space odyssey tour which are recently completed. You can see most fascinating starry sky, high resolution planets in SL, and even Galaxy clusters within 250 million light years from our Earth.

(Opening)

Yan: Can you hear my voice?

There are 3 check points. Please see these panels.



[07:02] Valibrarian: This is a sound troubleshooting board. Good to know

Yan: If you have any questions and comments, please use text-chat for record in chat-log. During this tour, I may miss your comments so I'll read and reply later.

[07:01] Valibrarian: Yes! We can type here during the tour.

[07:03] Valibrarian: Teaching training boards are great to help new people.

Yan: Welcome to "Gateway to thinking" or TelePortal for Education.

I'm updating this gateway since 2015 at Science Circle island.

But last month, the Science Circle started a new project and changed their priority.

So I searched for a new host region, then, Community Virtual Library accepted this Gateway at Cookie.

(One prim TelePortal)

Yan: There are two types of gateway.

One is only one prim Teleport hub system developed by Draceina Pinion.

This board is including more than 300 destinations from natural science to humanity.



Destinations database;

https://docs.google.com/spreadsheets/d/1X4MnTFD87zFKK0zoSL8Ac_N-xjvsA2o7KQRAiZ 5G8tQ/edit?usp=sharing

Yan: When you touch the upper part of this board, natural science categories appear.

Undersea, Science general, Space or Astronomy, chemistry or biology, Clinic or Health or Rehabilitation.... And Creator's resources.



[07:05] Valibrarian: Nine categories of resources for teachers are included in his collection.Yan: When you touch one of Categories, then, destinations appear. When you click one of destinations, then World map shows the destination and teleport.



- [07:06] Valibrarian: 24 destinations
- [07:06] Valibrarian: The labels are in English and Japanese.
- Yan: Next, when you touch lower part of this board. Then Humanity categories appear. People can get this system in free and rez own parcel, and destinations are remotely updated.

Don't confuse HUB and HUD. This is not HUD, so don't wear but rez in your parcel.

- [07:08] Solar: Will map in gift box update itself? OK, I hear in voice that it will. Great.
- [07:08] Peter: oh wow
- [07:08] Peter: Really impressive

(Visible TelePortal)

- Yan: One prim teleport hub system is very powerful and limitless. But it is not so user-friendly for teachers and students.
 - So I made a visible version. More than 80 TP boards including more than 150 destinations are arranged on the ground and the upper floor.
- [07:10] Valibrarian: 150 destinations
- [07:10] Bethany: WOW!
- Yan: On the ground, Natural science, Learning places, educational communities are arranged. And on the upper floor, Art, history, religion, literature and world in present are arranged.
- [07:10] Solar: /me as a physicist allows the upper arts to have the upper floors. haha
- (Texture reading time)
- Yan: Each of TP board displays 512x256 snapshot of destination or 512x512 poster.
 - Can you see all panels around here? Or do you feel this region became heavy for textures reading?
 - I continue on reducing number of TP boards by selecting destinations and putting them together to.

- [07:11] Solar: They load quickly, but maybe because I saw these textures in science circle
- [07:12] Peter: hardly any lag for me so far
- [07:12] Valibrarian: I can read the textures.
- [07:12] Bethany: I'm good too
- [07:12] Maria: I can read them as well
- [07:13] Solar: preloading assets helps optimize. I don't have too much experience in that.

(Explanation in Near-by chat)

Yan: Then, please touch this board, newcomer support, then, brief explanation, location of destinations are displayed in near-by chat.



[07:13] Newcomer support: Please open 'Nearby Chat'/'周辺チャット'を開いてください。

*** Japanese/ 日本語 ***

<u>Teleport to Davros (69,102,25)</u>: 'Support Staff Japan' by Asuka703

Teleport to MeltingDots (186,56,26): 'MelSupport' by Kero Nishi

Teleport to kitakyusyu (155,109,23): 'Beginner Center Japan' by Bucchus Mcdonnell

<u>Teleport to TokyoMainLand (25,80,23)</u>: 'SL Utopia' by Sayully Noel

*** Spanish/ Espanol ***

Teleport to Unihispana (4,8,3027): 'UniHispana Ayuda'

*** Portuguese/ Português ***

Teleport to AJUDA BRASIL VOLUNTARIOS (129,25,24): 'Ajuda SL Brasil'

*** Russian/ русский ***

<u>Teleport to Moscow Island (234,175,21)</u>: 'Moscow Island [07:13] Newcomer support: *** German/ Deutsch *** Teleport to New Berlin GNC (234,161,22): 'GNC newBERLIN

*** English ***

Teleport to Caledon Oxbridge (92,198,28): 'Caledon Oxbridge Gateway'

Teleport to Virtual Ability (170,99,24): 'Virtual Ability'

Teleport to Kuula (58,165,28): NCI Kuula - New Citizens Incorporated

Teleport to Lawst Paradise (218,30,24): 'NEW RESIDENT ISLAND'

Teleport to Helping Haven Gateway (49,52,26): 'Helping Haven Gateway'

Back to the portal :

Teleport to Cookie (77,64,21)

*** Have a Nice Trip ♪ ***

- Yan: You can see newcomer support places of various languages. Do not click destination yet, because it will teleport you without teleport window or world map as soon as you click.
- [07:13] Valibrarian: I see the landmarks in local chat when I click on a teleporter board.
- [07:14] Valibrarian: Wonderful! Language resources
- Yan: Please see Last line of near-by chat. There is the return point, here.

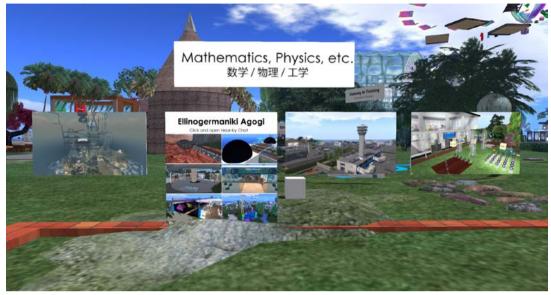
So you can TP and back by clicking location in near-by chat.

- [07:14] Valibrarian: Going back to the Cookie Portal is a good last destination in chat! So you do not get lost
- [07:15] Akasha: Yes, and you can see local chat but it is only send a click person.
- [07:17] Valibrarian: So- when I click on the board- the landmarks only show up on my screen...not viewed by all of us?
- [07:17] Solar: Right, VG
- [07:17] Bethany: yeah so anybody can do it!
- [07:17] Bethany: This is GREAT!!!!
- [07:17] Peter: /me understands
- Yan: Akasha is the scripter of this TelePortal. Very simple inter-region guiding system. Near-by chat explanation may also become simple lesson plan.
- [07:18] Bethany: this is PERFECT for newbies to get around easily!!!
- [07:18] Valibrarian: Easy way to guide students- yes!
- [07:18] Maria: Yes!!
- [07:18] Peter: Brilliant!
- [07:18] Akasha: :))
- [07:18] Sheila: yes, it's very easy to use
- [07:19] Maria: This is fantastic!

[07:19] Peter: So well planned out.

(Science General)

Yan: Then let's go around TP boards. These are general science. There are few places about mathematics and physics. If you know such places, please teach me.



[07:21] Valibrarian: Yan will add landmarks if we send them to him. Great

(Space exploration and Astronomy)

Yan: At the International Spaceflight Museum, I and my colleague added several exhibits. I'll guide you later.



- [07:21] Valibrarian: Later Yan will guide us to the International Space Museum
- [07:22] Bethany: Val, we need a display board at the library that TPs to here
- [07:22] Valibrarian: YES we do Bethany! This collection is amazing

(Zoo and Natural History)



- Yan: Oasis Zoo is unique. Other zoo in SL don't have any hence like safari park, but Oasis Zoo divides visitors and animals by fences, because the zookeeper lost her leg or hand by animal attack. Oasis Zoo also reproduces backyard of real zoo. Please visit later.
- [07:23] Solar: /me doesn't not want to be eaten by tigers.
- Yan: And PreHistorica is also good because the regions reproduce not only dinosaurs but also vegetation of Jurassic and Cretaceous.

(Ecosystem and climate change)

Yan: Delia's coastal habitats or Climate change impacts to ecosystem.

You can't teleport to the forest fire and flooding exhibit directly, because the region, the Science Circle island fixed arrival point, so you need to use teleport destination selector. From educator's side, it is good to be able to teleport several destinations directly in accordance with his/her lesson plan. These near-by chat explanations become brief lesson plans.



Yan: Weak point is that these TelePortal are not suite for class room, meeting, live concert, etc., because these don't have schedule information.

- [07:23] Bethany: this and calendar of whos online/where will let people easily meet up and explore places together!
- [07:24] Valibrarian: What calendar Bethany?
- [07:24] Bethany: The one you're working on...the spreadsheet. It's essentially a calendar
- [07:25] Valibrarian: Oh yes! Our CVL Educators Workshop spreadsheet- we will add this! Once our spreadsheet is ready
- [07:26] Akasha: Nice ;)
- [07:26] Akasha: Can I read the Our CVL Educators Workshop spreadsheet?
- [07:26] Akasha: only group member?
- [07:27] Valibrarian:

https://docs.google.com/spreadsheets/d/12Q3CUF1gQ1ua8EGWOuVeFOp9w-DBEI0j73fx_jP5Y6 0/edit?usp=sharing

- [07:27] Valibrarian: The worksheet is just getting started! It will be a work in progress...telling who is in what world to help!
- [07:27] Solar: I was just working on a power-visualization meter this morning...scripting fun. Yan: Abyss Observatory



[07:22] Solar: yay, abyss. a favorite

Yan: These are Climate Change Learning Portal, and Etopia visualize sustainable society under Climate Change. I think both can collaborate.

- [07:27] Solar: Here's my lab!
- [07:28] Akasha: Someday I would like you to show me the SIM^^
- [07:28] Solar: dozo
- [07:29] Akasha: :)

(Chemistry, Biology, Clinic, Medicine and Health)



- [07:29] Valibrarian: Wonderful! Good to see medical resources
- [07:30] Bethany: all disciplines represented, it's awesome! I'm going to come back and make a machinima and blog about this for eCampus!
- [07:30] Valibrarian: It is called a "1 Prim teleporter system"
- [07:30] Valibrarian: Great Bethany!
- [07:31] Valibrarian: We are SO glad Yan has placed this here as it is a very useful collection.
- [07:31] Bethany: honestly, this is AMAZING!
- [07:31] Delia Lake: It is! I see some that I've never visited but will.
- [07:31] Peter: I'd never have found a fraction of these sims

(Literatures)

Yan: 2nd floor is Humanity

At the Jules Verne Museum, there is Nautilus submarine faithfully reconstructed based on original novel. Two starship of Star Trek series are reproduced every floor of starship, Star Wars, sand planet is reproduced well.



- [07:31] Solar: Haha, that will enrage the trek-vs-lucas people
- [07:32] Peter: All I know is, Han Shot First! (<u>https://en.wikipedia.org/wiki/Han_shot_first</u>)
- [07:32] Bethany: where the donation box????!
- [07:32] Delia Lake: This is a perfect host location for these posters and LMs
- [07:34] Valibrarian: yes Delia! We will have so many great field trips :)
- [07:33] Solar: /me wishes there was a Middlemarch (George Eliot/Mary Evans) sim
- (Art)



- [07:34] Valibrarian: Elle! See the art section! excellent
- [07:34] Elle: yes!
- [07:34] Fiona: Happy to see that La Maison d'Aneli gallery is here. I just finished an exhibit there.
- [07:35] Valibrarian: great Fiona :)
- [07:34] Solar: Ah, wind art...

Yan: This is visualization of wind field using particles and flexiprims. Please say hello to Windy!

- [07:35] Solar: Windy from my office says hello back
- [07:37] Valibrarian: A common calendar
- [07:37] Valibrarian: yes- connecting groups and communities would be great
- [07:37] Solar: Classification is difficult. Bookstores and libraries are experts, but even they can't well-classify a genre-crossing piece of culture, like a poetry book about physics intended on teaching a language to kids. Does it go in children's, poetry, science, or language?
- Yan: Classification is very interesting problem. In RL libraries, each of books is only one. (In SL, we can copy as needed, but how to arrange books in the library is helpful.)
 I also refer classification of Academic discipline.

(https://en.wikipedia.org/wiki/Outline_of_academic_disciplines)

- [07:38] Peter: sounds like a job for a facet based classification scheme
- (Yan: I inspired from faceted classification of Colon (PMEST) very much!)
- [07:38] Bethany: Is this HUD system on the market for sale? This would really simplify connecting all sorts of communities in SL
- [07:40] Akasha: This hud system is not on sale, but you can use this script , I think :)
- [07:40] Bethany: TY Akashakokuu
- (Yan: Don't confuse Hub and HUD. I used "Teleport Hub system" at first, so people misunderstand "1 prim TP Hub system" as HUD. Now I use "TelePortal" instead of "Teleport Hub", and there are two type, one is "1 prim type", and the other is "Visible type". You can "1 prim type" in free by touch gift box beside of 1 prim TelePortal board. For "Visible type", you can take copy your favorite TP boards and customize as you like.)
- [07:39] Valibrarian: Yes! I like how your collection is visual. You can walk around the various categories...very immersive
- [07:39] Peter: I love it.
- [07:40] Valibrarian: Do you have a problem keeping the collection current? Sometimes a sim will disappear.
- [07:41] Akasha: That is the biggest problem. Yan regularly visits places to check himself
- (Yan: Both of "1 prim type" and "visible type" are designed to be easy to maintain, but it is impossible to update these TelePortal, so I ask your help!)
- [07:41] Solar: Engineering/coding seems underrepresented. Not fault of our gracious host, but fault of collective SL culture, which denies the importance of creative coding and making here in SL.

(Philosophy & Religions)





(World in present)



- Yan: You can visit around the World in safe from Coronavirus. I recommend Japanese 6 region which show Japanese real life. And Mont Saint Michel in France and Venezia in Italy are also made by Japanese creators.
- [07:41] Valibrarian: Mont Saint Michel is made by a Japanese creator.
- [07:43] Bethany: Val we can totally start introducing newbies from the library, even via Zoom, but just coming here and showing them all this. This location would make any educator excited!
- [07:43] Peter: Great idea, Bethany!
- [07:44] Valibrarian: Yes- this collection really shows the potential of virtual worlds....all right here around us :)
- [07:44] Bethany: I've been wanting to do this, I think I'm just going to start on a weekly basis.

Let anybody join. I can post my Zoom sessions on our website

- [07:44] Valibrarian: yes Bethany!!!
- [07:45] Bethany: I'm just going to use my Tuesday office hours for this.
- [07:44] Solar: Aha, here is an example of crossover: Tejano appears here and below.
- (Yan: TelePortal is a kind of educational resource library. In SL, we can copy TP board as needed.)

(Space Odyssey Tour)

Yan: Time has passed. Last of this tour, I'll take you International Spaceflight Museum. Please touch this board.

[07:45] International Spaceflight Museum: Please open 'Nearby Chat'/'周辺チャット'を開いてください。

*** International Spaceflight Museum

by Non-profit organization, Kat Lemieux, Shanna Starship

World Rockets, Space Shuttle, International Space Station, Planetary Exploration.

 $http://www.ismuseum.org/wiki/index.php?title=Main_Page$

世界のロケット、スペースシャトル、国際宇宙ステーション、惑星探査。

Teleport to Spaceport Alpha (50,80,24) : Portal

<u>Teleport to Spaceport Bravo (144,64,442)</u>: Newton Cannon to Orbit

<u>Teleport to Spaceport Alpha (22,112,23)</u>: Space Shuttle Launch and Re-entry Ride

Teleport to Spaceport Alpha (115,127,451) : International Space Station and Space Odyssey Ride

<u>Teleport to Spaceport Alpha (72,217,636)</u>: Hayabusa2 spacecraft and Asteroid Ryugu

<u>Teleport to Spaceport Alpha (68,218,799)</u> : Nearest Stars

Teleport to Spaceport Alpha (128,132,948) : Galaxy Clusters

[07:45] International Spaceflight Museum:

Back to the portal :

Teleport to Cookie (86,65,21)

*** Have a Nice Trip ♪ ***

Yan: Newton Cannon is bug fix of an exhibit of Exploratorium, but Exploratorium was closed and International Spaceflight Museum accepted it.

Space Shuttle launch and re-entry ride reproduces real flight of Space Shuttle, so please try later.

- [07:48] Akasha: The space shuttle ride is so exciting and very real ^^
- Yan: Today, I'll take you Space Odyssey Tour from solar system to Galaxies within 250 million light years from Earth. Please click <u>Teleport to Spaceport Alpha (115,127,451)</u>: International Space Station and Space Odyssey Ride
- [07:49] Solar: We are going to Teleport to /Spaceport Alpha/115/127/451

- [07:49] Akasha: choice it :)
- [07:49] Bethany: ok
- [07:49] Valibrarian: And we will meet at the Spaceport Alpha?

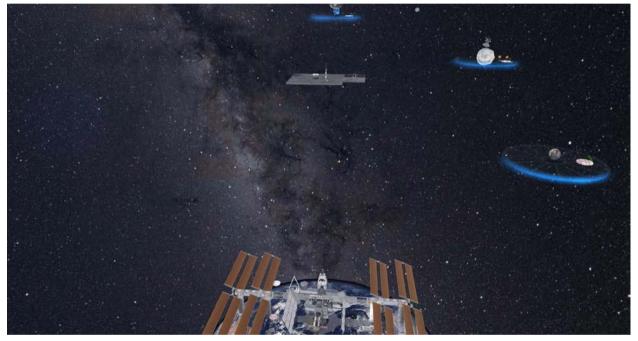
Yan: Yes!

- [07:50] Solar: See you there! Teleport to /Spaceport Alpha/115/127/451
- [07:50] Solar: Be careful!
- [07:50] Peter: Oh nice!

Yan: Please set your drawing distance maximum.

[07:51] Solar: Preferences>Graphics>Draw Distance: increase

Yan: This starry sky is best in SL using 32 divided spherical shell. If we use 132 divided shell, it becomes same resolution with No.1 planetarium in the world.



[07:52] Solar: /me , somehow, is spacewalking. There is an invisible wall between me and the walkway.

[07:53] Solar: arigato gozaimasu!

[07:53] Valibrarian: wow Yan! This is impressive

Yan: Please touch to ride Orion spacecraft.

[07:54] Space Odyssey Tour:

Welcome!

Orion spacecraft will take you Solar System Planets, Nearest Stars and even Galaxies within 250 million light years.

Scale of planets is 1/7,500,000.

Starmap is 8192x4096 pixel of Deep Star Maps, NASA, 2012

ttps://svs.gsfc.nasa.gov/3895

ようこそ!

オリオン宇宙船が太陽系の惑星と近くの恒星と、2.5億光年以内の銀河に案内します

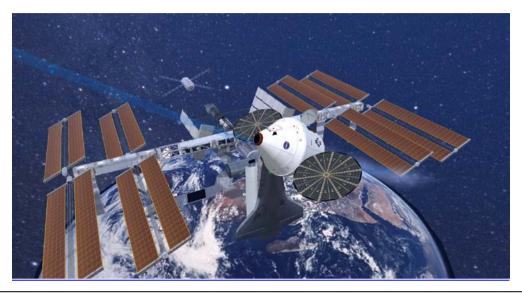
惑星の縮尺は 1/7,500,000 です

[07:55] Peter: where do I sit?

Yan: Sitting position is automatically selected.

- [07:54] Solar: bon voyage!
- [07:54] Solar: *planet earth is blue and there's nothing I can do*

David Bowie – Space Oddity: <u>https://www.youtube.com/watch?v=iYYRH4apXDo</u>



[07:58] Mercury:

38% the size of the earth. 1.4 times the month

Mercury's rotation is slow, and Mercury's day is nearly half a year on Earth.

NASA's MESSENGER spacecraft entered Mercury's orbit in 2011

https://astrogeology.usgs.gov/search/map/Mercury/Messenger/Global/Mercury_MESSENGER_MDIS_Basemap_

MD3Color_Mosaic_Global_665m

水星

地球の 38%の大きさ。月の 1.4 倍

水星の自転は遅く、水星の一日は地球の半年近く。

NASAの Messenger 探査機が 2011 年に水星の周回軌道に投入

[07:54] Valibrarian: Flying through space!!

[07:58] Venus:

Almost the same at 95% of the earth.

It is covered with CO2-based atmosphere, which pressure is 92 times that of Earth and temperature is 460 $^{\circ}$ C

at the ground level.

Venus's rotation speed is slow, and one day is close to four months on Earth. The rotation axis is almost inverted.

Akatsuki spacecraft entered Venus's orbit in 2015

https://www.deviantart.com/snowfall-the-cat/art/Venus-Clouds-733625463

金星

地球の95%の大きさでほぼ同じ。

二酸化炭素を主成分とする大気に覆われ、地表の大気圧は地球の 92 倍。気温は 460 度 C

金星の自転速度は遅く、一日は地球の4か月に近い。自転軸はほぼ倒立。

あかつき探査機が2015年に金星の周回軌道に投入

[07:58] Earth and Moon:

Our planet full of water and life!

https://www.nasa.gov/multimedia/imagegallery/image_feature_2495.html

水と生命に溢れた私たちの星!

Moon

about one-quarter of the earth, the diameter ratio of satellites to planets is orders of magnitude larger.

Always facing the same side to the earth

Gravity is 1/6 of Earth

http://solarviews.com/cap/moon/moonmap.htm

月

地球の約1/4で、惑星に対する衛星の直径比率は桁違いに大きい。

常に同じ面を地球に向けている

重力は地球の 1/6

[07:55] Solar: Wow, you have 4 seconds to decide to stay or go. The Clash would be impressed, it took them three minutes

[07:59] Mars:

Slightly larger than 1/2 of the earth

Gravity is 1/3 of Earth

Both poles have polar caps made of water and CO2.

There are traces of a dry river on the ground.

https://astrogeology.usgs.gov/search/map/Mars/Viking/Color/Mars_Viking_ClrMosaic_global_925m

火星 地球の 1/2 より少し大きい 重力は地球の 1/3 両極に水と二酸化炭素からなる極冠がある。 干上がった川らしい跡が見られる。

[07:59] Mars ground:

1976: Viking Lander

1997: Mars Pathfinder

2004: Mars Exploration Rover

Future: Ares- Mars Flyer

[08:00] Asteroid Belt:

More than 545,000 minor planets which orbits are confirmed

NASA's Dawn probe entered into orbit around Vesta in 2012 and Ceres dwarf in 2015.

JAXA's Hatabusa sampled from Itokawa in 2005 and Hayabusa 2 sampled from Ryugu in 2018

小惑星帯

軌道が確定したものだけで 545,000 個以上

NASAのドーン探査機が2012年にベスタの、2015に準惑星ケレスの周回軌道に投入。

JAXA のハヤブサが 2005 年にイトカワから、ハヤブサ2が 2018 年にリュウグウからサンプル採取



[08:00] Jupiter:

"Gas Giant", 1/10 the size of the sun. about 11 times the size of the Earth.

It spins in about 10 hours and is oblate.

In 2016, NASA's JUNO spacecraft entered Jupiter's polar orbit

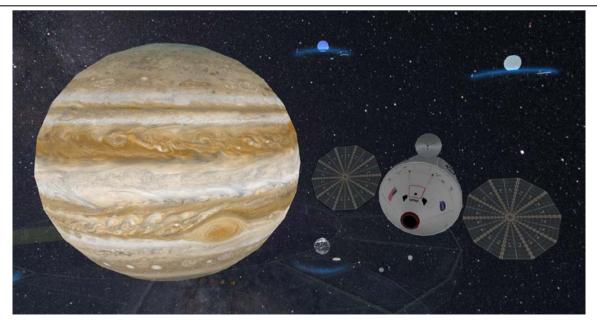
http://www.planetary.org/multimedia/space-images/jupiter/merged-cassini-and-juno.html and the space-images/jupiter/merged-cassini-and-juno.html and the space-images/jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassini-and-jupiter/merged-cassi

木星

太陽の 1/10 の大きさ。地球の約 11 倍の巨大ガス惑星。

約10時間で自転し、扁球形状をしている。

2016年、NASAのJUNO 探査機が木星の極軌道に投入



[07:58] Valibrarian: yes- now I see the other rocket

[08:01] Saturn:

"Gas Giant", 84% larger than Jupiter, about nine times the size of the Earth

It spins in about 10 hours and is oblate.

There are North pole hexagonal pattern

There is a ring of small pieces of ice.

Cassini spacecraft entered Saturn's orbit in 2004

https://www.deviantart.com/snowfall-the-cat/art/Cassini-Saturn-Map-788837245 https://www.freelancer.com/continues/interval and interval and interv

est/Create-a-Saturns-Rings-Texture-1018027-byentry-13872977

土星

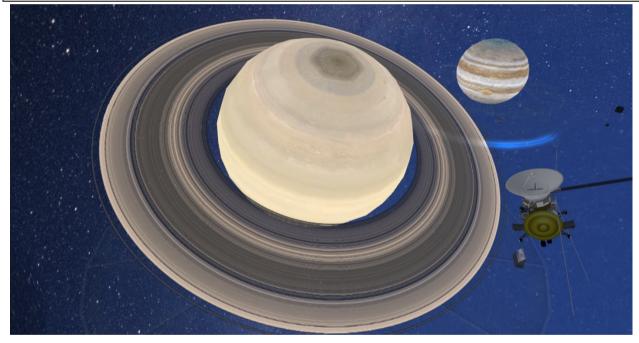
木星の84%の大きさ。地球の約9倍の巨大ガス惑星

約10時間で自転し、扁球形状をしている。

北極に六角形の雲のパターンがある

氷の小片からなる輪がある。

Cassini 探査機が 2004 年に土星の周回軌道に投入



[07:58] Valibrarian: I think we are nearing Saturn

[07:58] Valibrarian: passing through the rings

[08:02] Uranus: "Ice Giants" Axis of rotation is tilted sideways, 98 degrees. Uranus has a ring composed of extremely dark particles. NASA's Voyager 2 flew by in 1986. 天王星

巨大氷惑星

赤道傾斜角が98度で、ほぼ横倒し。

暗い物質で構成された輪を持つ。

NASA のボイジャー2 号が 1986 年にフライバイ。

[07:59] Valibrarian: yes- SO much work is evident!

[08:02] Neptune:

"Ice Giants"

There is a pattern called a "Great Dark Spot"

NASA's Voyager 2 flew by in 1989.

海王星

巨大氷惑星

大暗斑と呼ばれる模様が存在

NASA のボイジャー2 号が 1989 年にフライバイ。

[08:03] Pluto and Charon:

In 2009, it became a dwarf planet from a ninth planet.

Slightly larger than 2/3 of the size of the moon

New Horizons spacecraft flew by in 2015

https://www.deviantart.com/snowfall-the-cat/art/Pluto-Map-2015-Nov-10-546286799

冥王星

2009年に第9惑星ではなく準惑星になった。

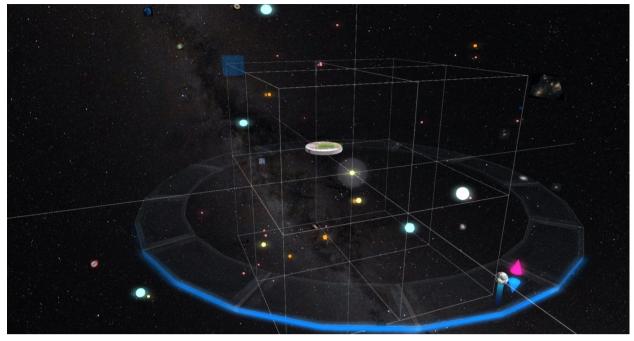
月の大きさの 2/3 より少し大きい

ニュー・ホライズンズ探査機が 2015 年にフライバイ

[08:03] Nearest Stars:

within 32 light years distance
Grid size is 10 light years.
As a star that may have a planet where life exists;
4.25 light-years Proxima Centauri
11 light years loss 128
11.9 light years Tau Whale
近くの恒星
32 光年以内
格子間隔は 10 光年
生命が存在する惑星を持つ可能性がある恒星として
4.25 光年 プロキシマ・ケンタウリ
11 光年 ロス 128

11.9 光年 クジラ座タウ星



[08:01] Solar: Definitely needs to give rider a choice of speeds.

(Yan: Sorry but if you want to see it slowly, please get off at Planet Stations. On the other hand, if we increase the speed further than this, an unintended turn will occur.)

[08:04] Galaxy Clusters:

Galaxies within 250 million light years from Earth

Grid size is 50 million lught years

Almost galaxy images are taken by Hubble Space Telescope

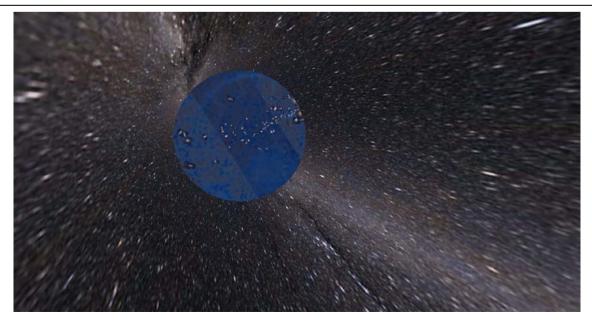
Galaxies are distributed like filaments or walls, and both side of the walls, vast vacant spaces (void) are spreading

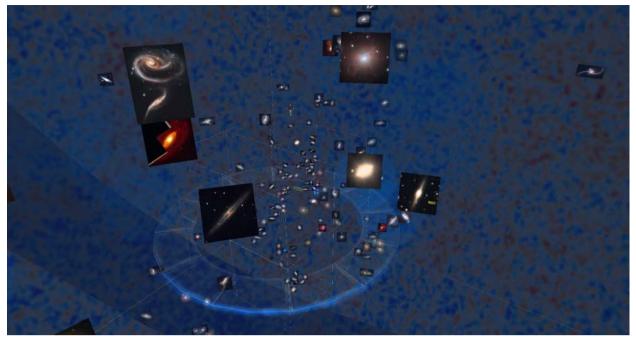
2.5 億光年以内の銀河。

格子間隔は 50 光年

ほとんどがハッブル宇宙望遠鏡による画像。

銀河がフィラメントや壁のように分布していて、その両側は広大な空隙(ボイド)が広がっている。





[08:01] Valibrarian: wow

- [08:02] Valibrarian: Is this the stopping point?
- [08:02] Valibrarian: That ride was amazing
- [08:02] Solar: Well, we've left it all behind. I can't see any way to get back, but maybe touching this earth...although that seems like touching the concentrated evil at the end of Time Bandits

(Yan: The earth is notecard giver)

- [08:03] Valibrarian: or one sign says teleport to space shuttle reentry ride
- (Yan: Yes. upper blue cone is for back to Nearest Stars, and lower blue cone is for back to the Space Station to ride on Space Shuttle re-entry ride)
- [08:03] Solar: Yeah, I guess one could get off at each stop, and pick up the next ship when digested. I would assign students two stops, let them pick their own two more, for ownership.
- (Yan: When you get off at the station and walk and look around, please walk in to station platform again, then next spacecraft will be appeared.)
- [08:03] Valibrarian: oh here comes more space ships!!
- [08:03] Solar /me always afraid of falling off
- [08:03] Peter: Very impressive
- [08:03] Fiona: That was quite a trip!
- [08:04] Valibrarian: Looks like 2 space ships have landed
- [08:04] Solar: /me plays "Sitting on Top of the World" by Lenny Kravitz. https://www.youtube.com/watch?v=5zi0QKOL6aI
- [08:04] Solar: "This is where we all end up" in a sagan-y voice
- [08:04] Fiona: Another space craft!
- [08:05] Valibrarian: That was amazing!!!
- [08:05] Peter: Stunning

- [08:05] Solar: Yes, I like being in the Local Group
- [08:05] FionaFei: That was very cool.
- [08:05] Peter: best use of 3-d
- (Yan: I want to expand at least 500 million light years so that people can see wall and void more clearly. But high-resolution images of Hubble space telescope become few. I hope next space telescope.)
- [08:06] Solar: Hubble-Hubble
- [08:06] Solar: Webb scope?

(Yan: Yes. James Webb Space Telescope.)

- [08:07] Valibrarian: So you have long term goals to add to this museum.
- [08:07] Solar: /me just noticed Cosmic Background Radiation (CMB) in distance
- [08:08] Fiona: It's beautiful up here. :-)
- [08:09] Solar: So many possibilities for display. For example, user could choose which part of spectrum to see in, radio vs UV vs XRay vs visible

(Yan: I hope so. And I want to reflect real size of galaxies. I need to collaborate with astronomers)

- [08:09] Valibrarian: You learn more each time you visit! The learner can keep coming back
- [08:10] Solar: In this 3D model, the speed of light is infinite. We could have galaxies move depending on where the avatar is.
- [08:10] Bethany: This was an amazing tour! Thank you Yan!! ありがとうございました Arigatōgozaimashita
- [08:10] Valibrarian: THANK you Yan! We appreciate having your resources on Cookie
- [08:10] Solar: arigato gozaimas, yes!
- [08:10] FionaFei: Thank you!!
- [08:10] Valibrarian: I hope we can schedule another tour in the future and bring in more teachers and friends.
- [08:11] Bethany: yes!
- [08:11] Valibrarian: Also- you are putting something at the Nonprofit Commons?
- (Yan: Yes, I moved virtual world teacher training tutorials from Science Circle island. I'll introduce at next tour.)
- [08:11] Peter: Your work is most deeply appreciated!
- [08:11] FionaFei: Do you accept requests to add to your library?

(Yan: Yes, of course!)

- [08:12] Solar: Cool. Our Etopia Lab presentation is the next day, June 13.
- [08:12] FionaFei: I know several great resources that I think would go well in your collection
- [08:12] Valibrarian: We will be back~ for another tour...so much to explore
- [08:12] Bethany: yes!
- [08:12] Valibrarian: What time on June 13 Solar?
- [08:13] Valibrarian: For the Etopia Lab presentation?
- [08:13] Solar: 10AM SLT
- [08:13] Valibrarian: thanks

- [08:13] Yan: Oh good news of Etopia
- [08:14] Yan: Basic database (of 1 prim TelePortal) is

https://docs.google.com/spreadsheets/d/1X4MnTFD87zFKK0zoSL8Ac_N-xjvsA2o7KQRAiZ5G8t

Q/edit?usp=sharing

[08:14] Yan: you can add comment

- [08:14] Valibrarian: Thank you for this spreadsheet- wonderful!!!
- [08:14] Bethany: I've sent you all friend requests
- [08:15] Fiona: ~YAY!!! ¥ ¥(@o@)/ / YAY!!!~
- [08:15] Valibrarian: This tour was awesome! and I will attend on June 12th
- (Yan: Teacher training tutorial at Aroft- Nonprofit commons also has TP boards but for good sample places only)
- [08:16] Valibrarian: You are putting resources at Nonprofit Commons...a sample destinationokay that will be good
- [08:17] Valibrarian: Teacher training tutorial- excellent
- [08:17] Valibrarian: yes Aloft- at the nonprofit commons
- [08:21] FionaFei: Cypris Chat

(Yan: I already added TP board of Language learning.)

- [08:21] Valibrarian: a language learning group :) good
- [08:22] Peter: So they help English speaks who want to learn Japanese?
- [08:22] FionaFei: yes :-)
- [08:22] FionaFei: I'll pass the landmark to you or to anyone who wants it
- [08:22] Peter: It is my #1 language to learn on my bucket list
- [08:22] Valibrarian: yes pls Fiona
- [08:23] Peter: I just know a couple phrases so far, love the approach to grammar
- [08:23] Solar: My list of SLURLs from 13 years ago is obsolete
- [08:23] Akasha: ahaha
- [08:23] Akasha: I know Cypris chat
- [08:24] FionaFei: -D oh great Akasha
- [08:24] Akasha: and adding group now

Next tour: on 12th June (Friday) at 7 am PDT