

CHRONICLES OF EXOPLANET EXPLORATION

EXOPLAN



NOTRYCATCH



THE TASK SELECTED BY THE TEAM

Starting with the first confirmed planet discovered in 1995, we are approaching 5,600 confirmed exoplanets today, and the number will continue to grow along with our knowledge of them, thanks to NASA's James Webb Space Telescope and the future Nancy Grace Roman Space Telescope.

Existing traditional educational materials that talk about exoplanets can have drawbacks, such as: not being accessible to everyone, not providing the necessary level of interactivity and engagement, scattered across multiple sources, and being difficult to understand for younger age groups.

EXOPLAN is an app whose mission is to educate students about the wonders and diversity of exoplanets.

The app consists of 4 main sections:

- Exoplanets (objects of observation)
- Observatories (subjects of observation)
- Quizzes as a game form of knowledge acquisition and testing
- Study materials to familiarize you with exoplanets and methods of studying them.

NASA data used in the app can give users an idea of the huge variety of planetary systems in the Universe.

KEPLER-186F

KEPLER 186

planet radius (Earth)
0.1283 compare →

550 LIGHT YEARS FROM EARTH

- **LIGHT SPEED** AUTO BULLET TRAIN JET VOYAGER
- Travel speed: 671 Million miles per hour
- Travel time: 245 Years

Speaking about distances, '1 light year to the Sun' or '500 light years to another system', is it short or long distance? Don't think too long, just get in the jet and take a flight.

* Don't forget your insurance PLEASE

Planet Name	Kepler 186 f
Host Name ?	Kepler 186
Number of Planet ?	5
Status ?	Published Confirmed
Stellar Effective Temperature [K] ?	3748±75
Stellar Radius [Solar Radius] ?	0.539±0.015
Stellar Mass [Solar Mass] ?	
Detected by ?	Transit
Observed by ?	Kepler ↗

Torres et al. 2015 ↗
Planetary Parameter Reference

planet radius (Earth)
0.1283

Kepler 186 F



Earth

Kepler 186



Sun

We can't imaging or compare real sizes of stars and planets. But with the help of visualization we can do it!
schematic presentation

There are a lot of scientist, astrophysics and stargazers who collect data about the planets and their systems. Feel free to review all of them!

2014

discovery year

0.7048

orbital radius (AU) ↗

228.8

orbital period (days) ↗

Search

Filter

Photo	Planet Name	Host name	Number of Planet	Status	Stellar Effective Temperature [K]	Stellar Radius [Solar Radius]	Stellar Mass [Solar Mass]	Detected by	Observed by
	24 Boo b	24 Boo	1	Published Confirmed	4893±15	$10.64^{+0.84}_{-0.59}$	$0.990^{+0.190}_{-0.130}$	Radial Vel...	Okayama... ↗
	75 Cet b	75 Cet	2	Published Confirmed	4809	$10.38^{+0.15}_{-0.59}$	$1.92^{+0.07}_{-0.08}$	Radial Vel...	Okayama... ↗

There are a lot of space telescopes and surface stations that allows scientists to observe far distances of our university.

You could reach every ground station simply by rotating and zooming the 3D model of Earth. Every label on the model is the real location on the planet while tap on this label will lead you to interesting facts about it.

On the top side of the screen you can look at the space telescopes that currently 'on a duty' or already finished their mission.



LA SILLA OBSERVATORY

Established Year

1964

Latitude

-29.25627

Longitude

-70.73805

La Silla Observatory is an astronomical observatory in Chile with three telescopes built and operated by the European Southern Observatory (ESO).



Space Observatories

Earth Observatories

TESS (TRANSITING EXOPLANET SURVEY SATELLITE)

Mission Type

Space Telescope

Launch Date

2018-04-18

Objective

Extended mission

Wave Light

Visible light

Type

Space

Type

Space

NASA's TESS discovers exoplanets, worlds beyond our solar system. In the course of its extended observations of the sky, TESS also finds and monitors all types of objects that change in brightness, from nearby asteroids to pulsating stars and distant galaxies containing supernovae.

◎ Subaru Observatory

◎ W. M. Keck Observatory

◎ SAAO

◎ La Silla Observatory

LEARN

A DATABASE OF SCIENTIFIC MATERIAL IN ACCESSIBLE FORMATS TO EXPLORE
THE ACCUMULATED KNOWLEDGE OVER MANY YEARS

VIDEOHUB ARTICLES SCIENTIFIC RESEARCH



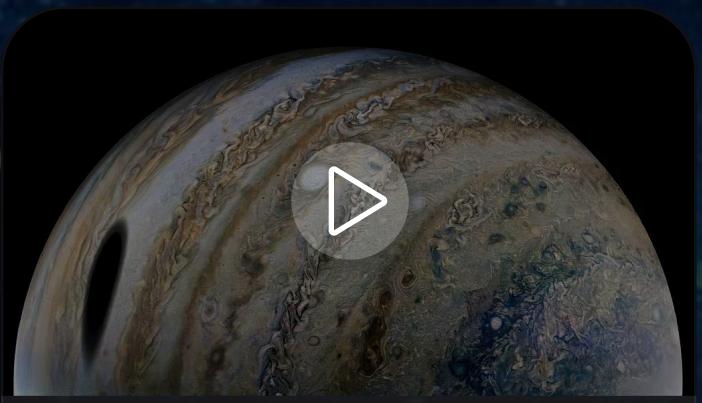
A NEW MISSION
FROM NASA

#missions



SOUNDS OF MARS FROM
PERSEUERANCE ROUER

#space #sound



AUDIO OF JUNO'S
GANYMEDE FLYBY

#space #sound

We have introduced Learn section so students could get latest video courses, news, real footages and hypothetical visualizations from NASA. Everything for studying in one place.

To make learning process more interesting and unforgettable there are a lot of quizzes where students can participate to earn a space-experience to be ready to move further after their graduation.

Complete quizzes – earn experience. Quite simple :)

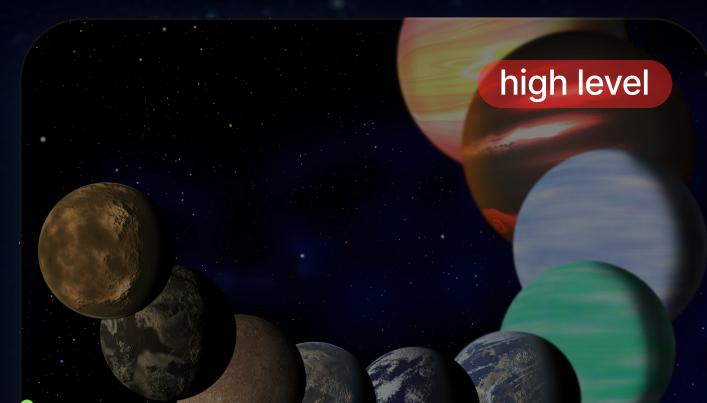
MISTER TURBOCORN 
200

MISTER TURBOCORN 
480

MISTER TURBOCORN 
658

QUIZZES

HII! 🌟 HERE YOU CAN PRACTICE YOUR KNOWLEDGE. CHOOSE A QUIZ, ANSWER QUESTIONS AND IMPROVE YOUR KNOWLEDGE



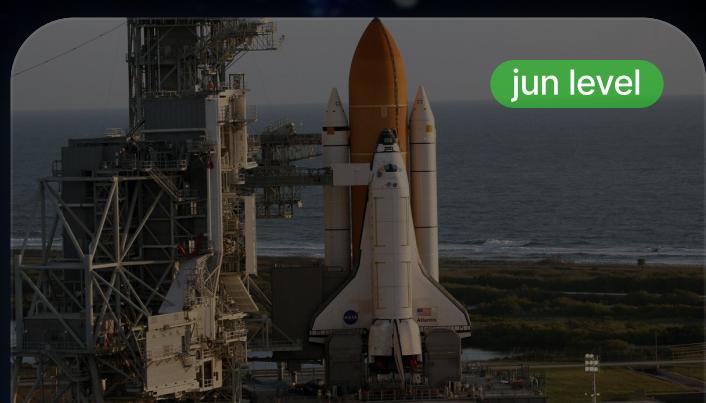
PARAMETERS
OF EXOPLANETS

10 Questions • 5 minutes



TELESCOPES

15 Questions • 8 minutes



THE HISTORY
OF SPACESHIPS

24 Questions • 10 minutes

DATA & TECHNOLOGIES



BLAZOR

[DOTNET.MICROSOFT.CO
M/EN-US/APPS/ASPNET/
WEB-APPS/BLAZOR](https://dotnet.microsoft.com/en-us/apps/aspnet/web-apps/blazor)

THREE.JS

[THREEJS.ORG](https://threejs.org)

GITHUB

[GITHUB.COM](https://github.com)

CHAT GPT

[CHATGPT.COM](https://chatgpt.com)

FIGMA

[FIGMA.COM](https://figma.com)

[EXOPLANETARCHIVE.IPAC.CALTECH.EDU](https://exoplanetarchive.ipac.caltech.edu)

[EXOPLANETS.NASA.GOV](https://exoplanets.nasa.gov)

[SCIENCE.NASA.GOV](https://science.nasa.gov)

[EYES.NASA.GOV](https://eyes.nasa.gov)

OUR TEAM



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Thanks for watching 🤝

NOTRYCATCH