

DISCOVERING SCIENCE CONNECTIONS

presentation

The task was to find connections between different scientific disciplines of NASA and to inform the audience about these connections.

Slide info:

The Department of Biological and Physical Sciences focuses on using the space environment to conduct experiments that cannot be performed on Earth.

Read:

The Department of Biological and Physical Sciences is leading NASA's biological and physical sciences research, which focuses on using the space environment to conduct experiments that cannot be performed on Earth.

Slide info:

Heliophysics (Physics of the Sun) is a branch of physics devoted to the study of the behavior of the Sun.

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Science includes the study of the solar spectrum, the nature and causes of phenomena on its surface. These mean internal thermal, electrical, magnetic, nuclear and gravitational processes.

Slide info:

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This science provides technology, knowledge and observations that help to reflect the myriad links between the vital processes of our planet and the climatic consequences of ongoing natural and man-made changes.

Slide info:

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Planetology is a set of sciences that study planets and their satellites, as well as the solar system as a whole and other planetary systems with their exoplanets. Planetology studies the physical properties, chemical composition, surface structure, inner and outer shells of planets and their satellites, and conditions for their formation and development.

Slide info:

Astrophysics, planetology, heliophysics.

Read:

More research in astrophysics and the study of planetology will help find planets where there may be life, because the more information we know about space and the more technology we can use, the more likely we are to not only find such a planet, but also we will send there space equipment for collecting samples. The heliophysics section can also help us in this search, because on the example of our solar system we will be able to compile criteria for finding another system where new biological forms can be found.

Slide info:

Heliophysics, Earth Science, Planetology, Astrophysics.

Read:

Heliophysics studies the influence of the Sun on the planets' atmosphere, while Earth Science studies the circulation and composition of the Earth's atmosphere. Research on the composition and motion of the atmosphere can determine the impact of changes in the atmosphere on the life of organisms and the planet as a whole and apply the knowledge gained in such sections of science as planetology and astrophysics.

Slide info:

Biological and physical sciences, planetology, astrophysics.

Read:

Materials science, which is a division of biological and physical sciences, studies various influences on processes in materials that contribute to the improvement of equipment for the study of astrophysics and the accumulation of information about the properties of our usual resources on Earth. As well as materials science, the section of physical sciences is directly

involved in the creation of space technology, as their development contributes to the creation of space propulsion systems, life support systems, as well as environmental monitoring and control. This makes possible the development of planetology and astrophysics, namely the study of planets and planetary systems.

Slide info:

Biological and physical sciences, planetology.

Read:

The study of biological and physical sciences helps to study the cultivation and maintenance of organisms in all conditions, which can contribute to a more varied diet for astronauts, especially in missions related to interplanetary movement.

Slide info:

Planetology, Heliophysics.

Read:

For the development of planetology, it is necessary that the study of space objects was safe, because in extreme conditions, space weather can interfere with communications, satellites and power grids, we will help the science of heliophysics, which can predict the effects and effects of stars on space equipment.

Slide info:

Heliophysics, Earth science, biological and physical sciences, planetology, astrophysics.

Read:

The study of changes in the influence of the Sun and other celestial bodies on the planet Earth, associated with its physical and biological processes such as global warming, resulting in climate change, biodiversity loss, can help increase the likelihood of a positive result in the study of other planets.

Slide info:

Astrophysics and astronomy

Read:

Studies of astrophysics and astronomy help predict the impact of other cosmic bodies on our planet.

Slide info:

Earth science, biological and physical sciences.

Read:

Because Earth science has identified global warming problems, the combustion science program (which is a branch of the physical and biological sciences) conducts experiments on the International Space Station, where by eliminating gravity, researchers can study details of the combustion process that cannot be studied. land), which helps to minimize global warming.

Slide info:

Biological and physical sciences, planetology

Read:

The study of living organisms in extraordinary conditions (changes in habitual gravity, temperature, etc.), as well as their adaptation to these changes can help expand the search criteria for terrestrial exoplanets. Also, these changes can improve the preparation of astronauts for changes in gravity on different planets.

Conclusion

As a result of the project, we found connections between different scientific disciplines of NASA. The main goal was not only to tell about the findings, but also to inspire a new audience to develop in science and develop science itself to reveal even more secrets of our vast universe.

Our project was created in order to