



Your Challenge

To design a spacesuit that will allow you to explore the newly discovered planet.

Storyline

The year is 2055! Your team is designing a spacesuit for an astronaut who is going to explore a newly discovered planet: *PLANET EDP*. The President of the Outer Space Association has selected your team to design a new spacesuit that meets the requirement of this new planet!

The spacesuit should protect the astronaut from the hazards of the planet. It should be flexible enough so the astronaut can walk over rocky conditions. It should also protect the astronaut from falling over rocks. She also needs lights to help others see her through all the dust. The spacesuit should protect your astronaut, but still look cool and be comfortable to wear!

Requirements to include in your design

Mobility

- Consider pattern shapes, features, and fabrics that allow the astronaut to explore the planet.
- The spacesuit must be tough but flexible.

Wearable Electronics

- Use LED lights to make sure your astronaut can be seen during the explorations.

Insulation

- Design using fabrics and clothing features that will keep your astronaut warm.
- As she explores, she will get hot, so you also have to let sweat escape.

Impact Protection

- Design the outfit to protect your astronaut from falling over rocky conditions and crawling on rocks.

Be Creative and Make it Look Good!

- How can you make the spacesuit look cool, but still protect your astronaut and keep them warm?

What is the Environment and Atmosphere Like on the Planet?

- Temperature: -5°F (-20°C) – think of a very cold evening football game
- Terrain: Rough, rocky, hilly, and covered with unfamiliar plants
- Gravity: The gravity is two times that of Earth
- Visibility: It is dusty, cloudy, and dark there – so visibility is important
- Atmosphere: Full of dust, but otherwise breathable by humans