

THE STELLARS

MISSION: GREEN

Educator's Guide

Introduction

This document is a didactic guide for educators and teachers preparing for the screening of The Stellars movie in the planetarium, as well as for parents discussing the film with their children afterward.

With this guide, you will:

- Make the movie projection part of your teaching process, not just a visit to the cinema,
- Choose the best moment during the school year so that the film supports your lessons,
- Prepare lessons on the topics covered in the film—both before the screening, to get students ready, and after, to consolidate their knowledge.

The Stellars Education Guide is organized into topic pages, each covering one key concept from the film. Every page follows the same clear, four-section layout, tailored to four distinct audiences:

Younger children (3–4 y.o.): A simple, analogy-driven explanation of the concept, written in short, playful language.

Older children (5–8 y.o.): A more detailed description that introduces basic scientific vocabulary and connects the concept to real-world examples.

Suggestions for parents: A simple, easy-to-implement idea for parents to do with their children at home or while spending time outside.

Suggestions for teachers: A group-oriented project or classroom activity recommendation, complete with learning goals and key terms, for deeper exploration.

Of course, you can mix and match as you like — read the older children's sections to younger ones, try teacher activities at home, or create your own ideas. **NO ONE IS CHECKING HOW YOU USE IT! ;)**

About the movie

Title: THE STELLARS - MISSION: GREEN

Produced by Creative Planet in Poland in 2024

Reasons to watch The Stellars in planetarium:

Interactive story: The Stellars' exciting tale immerses young explorers, with built-in prompts that invite children aged 3–8 to think, answer questions, and participate under the planetarium dome.

Stunning visuals: The movie's breathtaking images and animations have been created by award-winning artists.

Educational content: The Stellars is not just an adventure story. The Creative Planet team spent two years carefully shaping the film to seamlessly combine educational content with captivating storytelling.

Beautiful music: Scored by Christian Andersen to enhance the show's theme.



Synopsis

Imani, Aki, and John are three friends from an alien solar system. While on a space exploration mission, they distractedly neglect their onboard “chores,” causing their ship to crash on an unknown planet — unknown to them — Earth. The accident damages the life-support system that sustains the cherished forest they keep onboard, which provides them with their vital Yumi-Plumi fruits. In their world, forests are usually cared for by robots, not by hand.

With no knowledge of plant care and no way to contact their elders, the Stellars are lucky to find help from the planetarium audience. All hope now rests on the Earth children, who help the Stellars discover what plants need to survive and save their Yumi-Plumi forest. The Stellars must race against time — will the children figure out each missing piece before it's too late?

Of course they will, as we've prepared subtle clues, ensuring that everyone will be winners. However, to make sure it won't be too easy, young viewers will have to travel together with our heroes to visit an ancient-growth forest on Earth, to search among the trees there, teeming with life. They will have to help launch the scout ship, navigate through space, locate the right spot on Earth – and then escape from an angry bear!

In the world of children's stories, good always prevails, and seekers always manage to find their Holy Grail. Thus, thanks to the young viewers, the Stellars will find the last piece of the puzzle, and so revive their nourishing forest. They will learn a lesson from the ecosystem about cooperation and responsibility.

Characters



THE STELLARS are a group of young explorers from a distant planet that travels across the galaxy to explore. Like many youngsters from their planet, they left home long ago, bringing with them a living forest aboard their spaceship. Together, Imani, Aki, and John form a close team, each using their special skills to face challenges, make new friends, and care for the life they find on their journey.



IMANI

Imani is the smart captain who knows how to use computers and science. She can seem bossy because she trusts her ideas, but she learns to listen and be kind to her friends.



AKI

Aki flies the spaceship and is always full of energy. He loves to laugh and tell jokes. Sometimes he moves too fast or talks too much.



JOHN

John fixes the ship and is very strong, but he speaks softly. He doesn't always know how strong he is, yet when his friends need him, he finds courage and saves the day.

What Plants Need to Live

In the movie, the Stellars discover that their Yumi-Plumi tree aboard the crash-landed ship is wilting. The scanner flashes “Most of the trees are in bad shape,” and Imani rallies the crew, and the children, to balance water, sunlight, soil nutrients, and CO₂ to revive it.



Younger children (3–4):

Plants are living things that grow just like you do. They need water to drink, sunlight to get their energy, a little dirt to hold their roots, and air to breathe. If they don't get what they need, plants become droopy or stop growing strong.

Older children (5–8):

All plants need four main ingredients: water, sunlight, nutrients in the soil, and carbon dioxide (a gas in the air). Inside each green leaf there are tiny kitchens called chloroplasts, where sunlight and carbon dioxide combine to make sugar—this process is called photosynthesis. The sugar feeds the plant, while water and nutrients help build strong stems and roots.

Activity suggestions for parents:

At home, cover a small potted plant with a clear plastic bag and gently tie it around the pot. After a few hours, look together at the small drops of water that form inside the bag. Talk about how plants „breathe” and give off water, even though we usually can't see it. This easy experiment helps children see how plants are full of life and connected to the air around them.

Activity suggestions for teachers:

Divide students into small groups and ask them to grow two small plants: one with everything it needs, and one missing an important factor like water, light, good soil, or fresh air. Each group will take care of their plants for two weeks, observing how they grow and what problems appear. At the end, students can create a poster showing what happened to their plants and explain why the missing element is so important for healthy growth.

Interstellar Travel

The Stellars arrive at Earth after completing the last leap of an incredible voyage from an unknown star system—or perhaps another galaxy. The film never shows how their ship traversed unimaginable distances, only the dramatic moment when their journey finally ends here.



Younger children (3–4):

Space is filled with countless stars so far away we can only see them as tiny points of light. The Stellars' ship has come from beyond those distant lights, traveling across the dark vastness until it reached our planet.

Older children (5–8):

Scientists measure space distances in special units: an astronomical unit (AU) is how far Earth orbits the Sun, and a light-year is the distance light travels in one year—about 9.5 trillion kilometers. The Stellars hint they crossed many light-years, though they do not explain how they managed to travel such enormous distances.

Activity suggestions for parents:

Lay out three markers indoors or in the yard labeled “Sun,” “Nearest Star,” and “Our Galaxy’s Edge.” Walk together from one to the next, counting steps to illustrate how vast even our own neighborhood of stars is before imagining a journey between galaxies.

Activity suggestions for teachers:

Take students to a hallway or playground and mark three points: “Earth,” “Sun,” and “Alpha Centauri.” Let the children walk between the points, counting how many steps it takes to get from one to another. After everyone has tried, talk together about how big space really is and why rockets need to travel very fast to cross even small parts of it.

Extraterrestrial Life & Communication

When the Stellars first meet the alien children, Captain Imani raises her hand and warmly says, “We come in peace.” That simple phrase and a friendly wave instantly builds trust—showing how clear, kind communication can bridge the vast distances between worlds.



Younger children (3–4):

Beings on other planets might look very different, but they can understand kindness. Waving your hand and smiling is a way to say “hello” without words. A friendly gesture tells others you want to be friends, no matter how far apart you live.

Older children (5–8):

Astronomers ask the Fermi Paradox: with so many stars and planets, why haven’t we found other civilizations? To search, we send radio signals, laser pulses, and spacecraft like Voyager carrying messages into space. However, even after many years, we have not received any answers back, and Earth remains the only place where we know life exists.

Activity suggestions for parents:

Together with your child, create a simple “space message” by drawing small pictures in a line—like a stick figure for a person, a big circle for a planet, and a small star. Let your child choose what important things about Earth they want to show. Talk about how aliens, who don’t know our language, might try to guess what the pictures mean.

Activity suggestions for teachers:

Pair up students and ask each pair to design a simple pictogram “greeting” on paper, using only pictures and symbols, without any words. Once they finish, partners swap their drawings and try to guess what each pictogram means. Afterward, talk together about how clear pictures help send messages across space and why it might be hard to understand a message from another world.

On-Board Robotics & Automation

After the crash, the Stellars discover their forest life-support machine is damaged. Without its help, they struggle to care for their plants by hand. This moment shows how often we rely on automation to quietly do important work, and how difficult it can become when that support suddenly disappears.



Younger children (3–4):

Some machines help take care of things without people watching them all the time. A robot can water plants, turn on lights, or even wash clothes in a washing machine. It knows when to work by following simple rules, just like a music box plays a song when you open the lid.

Older children (5–8):

Automation means machines can measure changes and react without needing a person to press a button. Sensors check things like moisture or temperature, and actuators move parts like valves or motors. Automated systems make life easier by doing jobs quickly, safely, and over and over again without getting tired.

Activity suggestions for parents:

Young children are surrounded by automation every day, such as night lights that turn on automatically or doors that open when they get close. During a walk or at home, point out examples of „invisible helpers”—machines working on their own. Talk about how life would be different without them.

Activity suggestions for teachers:

Divide students into small groups and ask them to invent a simple „automation” using only everyday objects or drawings. For example: „If the classroom gets too noisy, then the ‚quiet light’ turns on,” or „If the plant soil feels dry, then the ‚water bell’ rings.” Each group can present their automation idea, explaining what the sensor would notice and what action would happen.

Energy Transformations

On day thirty, Imani unveils a “piezoelectric transformer” that converts the crew’s clapping into enough electricity to launch the ship. As hands unite in applause and the power gauge fills, the film spotlights how mechanical vibrations in special crystals become usable energy.



Younger children (3–4):

When you wind up a toy car by twisting its key, you’re giving it stored energy that makes it zoom across the floor. Turning the knob changes your push into motion—just like the Stellars’ device turns claps into power.

Older children (5–8):

An energy transformation happens whenever one form of energy changes into another. In piezoelectric crystals, mechanical pressure (like sound or vibration) creates tiny electric charges. Those charges can then power devices, illustrating how energy never disappears but simply turns into a new kind.

Activity suggestions for parents:

Try a wind-up toy or a shake-powered flashlight with your child. Have them crank the toy or shake the light until it moves or glows, then talk about how their actions changed motion into movement or light.

Activity suggestions for teachers:

In small groups, students create an „energy transformation path” using their bodies and simple objects around the classroom. Each group invents a short story showing three different types of energy changing from one form to another. For example: one student claps their hands (sound energy), another uses the sound as a signal to roll a ball (motion energy), and a third catches the ball and lifts it up (potential energy).

Groups rehearse their mini „energy story” and then act it out in front of the class. After each performance, they explain which types of energy were involved at each step. This helps students understand transformations in a playful, physical way without needing any complicated setups or special materials.

Atmospheric Re-Entry

In one of the most intense moments, Imani shouts, „Nine seconds to impact!” as Aki struggles to stop the falling ship. The hull glows red from the heat caused by air friction, and a roaring plasma cloud surrounds them. This scene shows how critical heat shields are for protecting spacecraft during re-entry into a planet's atmosphere.



Younger children (3–4):

When you rub your hands together fast, they start to feel warm. That's what happens to spaceships when they fall back into the air from space—the air rubs against them and makes them very, very hot. Special covers, like a spaceship's „coat,” protect them from getting too hot and burning up.

Older children (5–8):

When a spaceship re-enters the atmosphere, it moves so fast that air molecules can't get out of the way quickly enough. The air pushes and rubs against the ship, causing extreme heat, just like rubbing your hands together makes them warm. Spacecraft use ablative shields, made of special materials that slowly burn or melt away, carrying the heat with them and keeping the inside cool and safe.

Activity suggestions for parents:

Rub your hands together quickly with your child. Feel how they get warmer. Then talk about how air friction heats up spaceships and how engineers design strong „coats” to protect astronauts when they come home.

Activity suggestions for teachers:

In small groups, challenge students to create „heat shields” for a raw egg using different materials like paper, fabric, or foil. Drop the protected eggs from a height to see which materials best absorb impact and simulate heat protection. Afterwards, discuss which properties helped most and how real spacecraft use similar ideas to stay safe.

Pollinating Insects (Bees)

While surveying the forest, the Stellars' scanner explains that bees collect nectar and pollen from flowers, helping plants grow fruits. Imani imagines their own ZeeZees acting like bees. This moment shows how small creatures like bees are essential for the health of forests and for growing the food that everyone depends on.



Younger children (3–4):

Bees are little helpers for flowers. When a bee visits a flower, some yellow dust called pollen sticks to its body. When the bee flies to the next flower, it leaves some pollen behind, helping the flowers make fruits and seeds. Bees are like tiny messengers carrying important packages from flower to flower.

Older children (5–8):

Pollination happens when pollen moves from the male part of a flower (the anther) to the female part (the stigma). Bees do this as they gather nectar. Without pollination, flowers cannot turn into fruits or make seeds. Pollinators like bees are essential partners for plants in the natural world, supporting entire ecosystems.

Activity suggestions for parents:

Plant a few bee-friendly flowers like lavender, sunflowers, or marigolds in a pot or garden with your child. Spend time outside together watching bees visit the flowers. Talk about how each bee helps plants grow new seeds and fruits by carrying pollen from flower to flower.

Activity suggestions for teachers:

In small groups, have students create a “pollination relay” game. Prepare simple paper flowers and place them around the classroom or outside in a garden area. Give each student a small cotton ball to represent pollen. The game starts when a „bee” (student) picks up a cotton ball from one flower, flies (walks or hops) to another flower, and gently places the cotton ball onto it.

Each group must complete a chain where every flower receives pollen from at least one „bee.” After all flowers are pollinated, students gather and talk about how bees do the same job in real life, helping plants produce fruits and seeds. Discuss why pollinators are important not only for wild forests but also for farms and gardens where people grow food.

Earth - The Blue Planet

As the Stellars lift off, they gaze down and see Earth shining blue against the darkness of space. Aki wonders if Earth looks blue because it's sad, but John explains that the color comes from the oceans covering most of the planet. This moment highlights Earth's special role as a water-rich world where life can thrive.



Younger children (3–4):

Earth looks blue from space because so much of it is covered by water. Big oceans, lakes, and seas sparkle under the sunlight, making our planet look like a bright blue marble. Land and forests add other colors, but blue is the biggest because water is everywhere.

Older children (5–8):

Earth is called the Blue Planet because more than 70% of its surface is covered by oceans. Water reflects sunlight in a way that makes it look blue from far away. Earth's liquid water, together with its atmosphere and protective magnetic field, makes it a rare planet where life can exist. Without so much water, Earth would look very different and life might not survive.

Activity suggestions for parents:

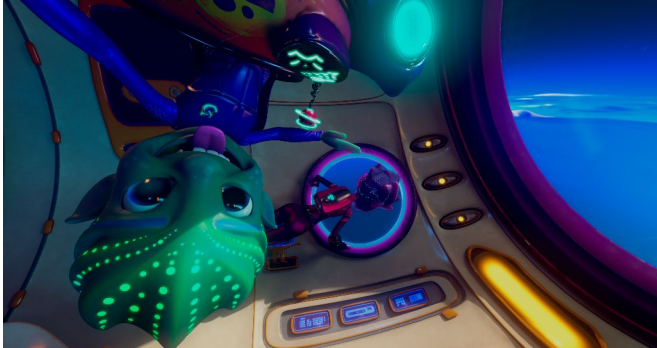
Take a walk near a pond, river, or even a puddle after rain. Together, look at how the sky's color reflects in the water. At home, use a blue marble or ball to show how Earth looks from space. Talk about why water is so important for life on our planet.

Activity suggestions for teachers:

In small groups, have students color or label a simple world map showing oceans and continents. Then, compare Earth's surface to Mars or Venus using pictures. Ask students to explain in their own words why Earth looks blue and why oceans are so important for life.

Microgravity and Weightlessness

Inside their spaceship, the Stellars drift gently as cups, tools, and even mushrooms float through the cabin. They laugh and glide midair, enjoying the strange feeling of weightlessness. This weightlessness happens because their ship is orbiting the planet and constantly falling around it. Gravity is still there, but because the ship and everything inside it fall together, it feels as if there is no gravity at all.



Younger children (3–4):

Far above Earth, inside the orbiting spaceship, everything floats gently in the air. Cups, toys, and even people move slowly like bubbles in water. This feeling is called weightlessness. It looks like flying without wings, soft and quiet, as if everything forgot how to fall down.

Older children (5–8):

Even far above Earth, gravity is still pulling on spaceships and astronauts. But because the ship and everything inside are falling together around the planet, they experience microgravity. In microgravity, objects seem to float because there's no solid ground pushing up against them, not because gravity disappears. Astronauts need to exercise daily to keep their muscles and bones strong.

Activity suggestions for parents:

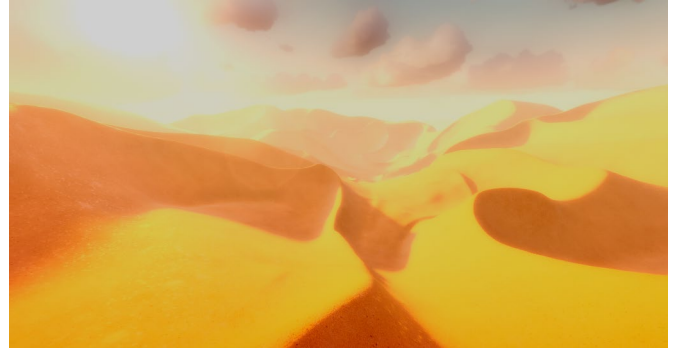
At home, toss a small ball straight up and watch it pause for a moment at the top. Talk about how objects in orbit keep falling without hitting the ground, which makes them seem like they are floating. Connect this simple idea to how astronauts feel inside their spacecraft.

Activity suggestions for teachers:

In small groups, have students design a „gravity catch” experiment: drop light objects like feathers or paper from a height and observe how they fall. Then compare it to videos of astronauts inside the ISS. Discuss how gravity is always there, but in orbit, everything falls together, creating the feeling of floating.

Earth's Surface Diversity

Through their telescope, the Stellars race past glittering polar ice, endless sandy dunes, and even a towering mountain of garbage. Scanner readouts flash freezing temperatures, searing heat, and high pollution levels. Finally, lush green forests come into view, showing that some parts of Earth still remain healthy and full of life.



Younger children (3–4):

Some parts of Earth are fluffy white with snow, some are hot and sandy like a sandbox, some are deep green with trees, and some sparkle blue with water. It's like a giant patchwork quilt made of snow patches, sand patches, forest patches, and ocean patches.

Older children (5–8):

Earth's surface is divided into biomes—areas with similar climate, plants, and animals. Polar ice caps stay very cold, deserts are hot and dry, rainforests are warm and rainy, and human-made waste sites can be heavily polluted. Sunlight, temperature, and rainfall interact with soil type to shape each biome and the life it supports.

Activity suggestions for parents:

During a walk around your neighborhood, try to describe together what the local environment is like. Is it mostly green and full of plants, dry and sandy, wet and marshy, or something in between? Talk about what plants and animals live there. At home, look at a world map and find places with similar environments, like forests, deserts, or grasslands, and discuss how different climates create different homes for living things.

Activity suggestions for teachers:

Divide students into small groups and assign each a biome—tundra, desert, rainforest, or polluted urban. Have each group create a poster or diorama showing typical landforms, climate features, plants, and animals of their biome. Afterward, groups present how climate factors—sunlight, water, soil—define each environment.

Moon Surface

When Aki accidentally points the telescope at a barren, rocky landscape, she mutters, “What is this rocky place?” Imani smiles and explains, “That’s the Moon, Earth’s natural satellite—with no air or life.” Their mix-up reminds us how quickly nearby worlds can blur together.



Younger children (3–4):

The Moon is like a big, gray ball in the sky with no air, water, or trees—only dust and rocks. You can press pebbles into a sandbox to make round holes, just like the craters that dot the lunar surface.

Older children (5–8):

Unlike Earth, the Moon has no atmosphere to burn up meteorites, so every rock strike leaves a crater. Its dark “seas” (maria) are hardened lava plains, and temperatures jump from very hot in sunlight to freezing cold in shadow. The surface is covered by a dusty layer called regolith.

Activity suggestions for parents:

Each evening, step outside with your child to spot the Moon’s shape. Mark its phase—new, crescent, half, gibbous—on a simple calendar. Over a month, watch how the Moon’s “face” changes, and talk about why we see only part of it illuminated.

Activity suggestions for teachers:

In small teams, have students simulate crater formation: sprinkle flour in a shallow tray, cover with cocoa powder, then drop marbles or small stones from different heights. Measure each crater’s diameter and compare results. Discuss how impact energy and angle shape lunar craters and what that tells us about the Moon’s history.

Pollution & Waste

While exploring Earth, the Stellars' scanner detects a „toxic mountain of garbage.” John steps back in shock as Imani studies the polluted soil and water. This scene shows how human waste can harm nature and reminds us why taking care of our planet is so important.



Younger children (3–4):

Garbage left on the ground is like a yucky blanket that makes plants and animals sad. When we throw trash away properly, it helps keep our parks, gardens, and forests clean and healthy for everyone to enjoy.

Older children (5–8):

Pollution can taint water with chemicals, litter soils with plastics, and fill the air with smog. When trash piles up, toxins seep into soil and waterways, harming plants, animals, and even people. Effective waste management—recycling, composting, and proper disposal—prevents ecosystems from becoming poison-filled dumping grounds.

Activity suggestions for parents:

On your next walk together, carry a small bag and pick up any litter you find. At home, sort the collected items into “recycle,” “compost,” and “trash” piles. Talk about why some things can be turned into new items and why others must go to a landfill.

Activity suggestions for teachers:

In small groups, have students conduct a brief “litter audit” around the school grounds. Each team collects waste, classifies it (paper, plastic, organic), and weighs their pile. Then groups brainstorm one realistic action—like adding more bins or starting a compost club—to reduce their school’s waste in the future.

Forest Ecosystem Complexity

As the Stellars scan their forest, alerts describe fungi and bacteria decomposing deadwood, earthworms enriching soil, bees pollinating flowers, and beavers building dams. Their excited commentary weaves these roles together, highlighting how every creature—no matter its size—keeps a forest healthy and balanced.



Younger children (3–4):

A forest is like a big team where everyone has a special job. Tiny bugs act like cleaners by munching old wood, beavers are builders who make little ponds, and bees are busy helpers that carry pollen so flowers can grow into fruit.

Older children (5–8):

A forest ecosystem works through a web of interactions. Producers (trees and plants) make food from sunlight. Consumers (herbivores and carnivores) eat plants or other animals. Decomposers (fungi, bacteria, insects) break down dead material into nutrients, which feed new plant growth in a continuous cycle.

Activity suggestions for parents:

Take a nature walk and gently lift a fallen log with your child. Look for insects, worms, and mushrooms underneath. Talk about how each small creature helps turn dead wood into food for the soil, illustrating the forest's teamwork at home.

Activity suggestions for teachers:

In small groups, have students build a simple forest food-web chart on poster paper: draw producers, consumers, and decomposers, then connect them with arrows. Next, ask each group to remove one species from their chart and discuss what would happen to the rest of the ecosystem.

Cooperation as a Tool

In the finale, the Stellars join forces with their young friends—some steady logs, others replace soil, and everyone shares tasks until their forest dome thrives again. This teamwork shows that when individuals pool their unique strengths, they can solve even the biggest problems together.



Younger children (3–4):

Working together means helping each other and having fun at the same time. When we work with friends, we can do bigger and better things than we could do alone, and it makes us happy because we share smiles, laughter, and new ideas.

Older children (5–8):

Collaboration multiplies what a group can achieve. Imagine a boat where each person rows in time: one rower alone moves slowly, but together they glide swiftly across the water. By coordinating efforts—just as the Stellars did—teams can tackle tasks no single person could do alone.

Activity suggestions for parents:

Turn a simple weekend task—like baking cookies or assembling a birdhouse—into a “Family Collaboration Challenge.” Together, list all the steps, then assign each person a role (measuring ingredients, mixing, decorating; or measuring wood, hammering, painting). Only by coordinating and helping one another will the end result succeed. Afterwards, chat about how working as a team made the project smoother and more fun.

Activity suggestions for teachers:

Have the class create a single “Teamwork Storybook” about solving a big challenge together. Divide the class into small groups; assign each group one page of the story. Within each group, students divide roles—“Writer” drafts the text, “Illustrator” draws pictures, “Designer” arranges layout, and “Presenter” shares the page with the class. When all pages are complete, bind them into one book. This ensures every group contributes a critical part, and each student practices a specific task within their team.

Summary

We hope that The Stellars guide will help you explore how plants grow, how ecosystems work, and how space travel really happens—all through the exciting story of our cosmic explorers. You'll deepen your understanding of water, light, nutrients, pollinators, and the special machinery that keeps life going, while joining Imani, Aki, and John on their interstellar adventure under the planetarium dome. Let this guide turn every scene into hands-on discovery and spark your own teamwork to protect worlds both near and far!

Planetaria are great places to teach, experience, and inspire children and adults. That is why, as Creative Planet, we create productions for their spherical screens.

Our Movies: **The Stellars**, **Magic Globe** and **Explore** have won many international awards. We hope you will like them too!

See you under the planetarium dome!



Resources & contact

Creative Planet website: <https://creativeplanet.pl/en>

Magic Globe movie website: <https://creativeplanet.pl/en/the-stellars>

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