You are on a plane with sea ice scientist. You take flight from U.S. National Science You are recreating the Robert Scott's polar You are in year 1911, it is winter and it is lunch time! Dried beef and fat with water is She asks you, what the difference between Foundation New Zealand on a military expedition from 1911 but with modern sea ice and land ice is - Sea ice is frozen cargo plane to McMurdo Antarctic station. equipment. What is on today's menu? Your on your menu You land on an ice runway. Let the search options are porridge and cream, protein seawater that floats around on the ocean snacks and chicken curry with added fat. It for meteorites begin! All potential space and land ice is snow that is compacted rocks are placed in sterile bags, frozen and is important to stay hydrated by drinking over many years and turns into ice. Sea ice carefully shipped to Antarctic Meteorite carbohydrate and electrolyte drinks (6000 is salty, while land ice is fresh. laboratory. calories every day). Profession: Geologist Profession: Climatologist Profession: Adventurer Profession: Geologist Score at least: 9 Score at least: 7 Score at least: 7 Score at least: 9 You fly 457 m above surface in NASA P-3B Penguins are spotted sunbathing on the Flying with DC-8 is not as pleasurable as a Your mission of collecting and calibrating plane. Team on board use laser to measure. coast in the misty morning. They are Arctic scenic flight above Grand Canvon at all. data while flying up and down above penguins. Wait, are they? Answer is no, thickness of ice cap and collect thousands. Turbulence and motion sickness are very Antarctica is going great – you can throw of high-resolution photographs, where because they only live in some parts of common inconveniences. Wait one turn dice one more time white represents thicker ice, grey thinner Antarctica. Do you know who takes care of before you continue with your campaign. ice and black or navy color represent open baby penguins? Fathers do! 7 species of waters penguins live on and around Antarctica. Profession: Geologist Profession: Biologist Profession: Adventurer Score at least: 11 Score at least: 7 Score at least: 9 Success! Microbial trace fossils formations You are in Ross Desert, Antarctica and You fly to Antarctica with a mission to Did you know that average temperature in Antarctica lies with -51 °C and that the were found in the Ross Desert. This prevent poaching. Many elephant seals meet a group of young astronauts training suggests that something similar could have have been killed for their fur and blubber. for space missions. They are adapting to lowest temperature ever measured in Antarctica was -89.2 °C at Wostok soviet formed on Mars. Your mission is to observe During your stay, you spot a hunter without extreme conditions such as isolation, low a permission and therefore save a colony of the microscopic structures. station? To survive these extremes, good temperatures and lack of sunlight physical condition is a huge advantage. animals. Great job! (essential for production of vitamins) in winter Profession: Adventurer Profession: Climatologist Profession: Biologist Profession: Biologist Score at least: 11 Score at least: 11 Score at least: 11 Score at least: 9

Ocean exploration by ship has begun! Your It is Sept. 15 2018 - special day for A group of climate change deniers organize We have 4 seasons. Did you know, that everyone - NASA land Elevation Satellite-2 iob is to measure the state of the ocean a rally and prevent your project to be Antarctica has only 2 – summer and (ICESat-2) Jaunch, Scientists will be able to and sea ice by different chemical analyses. funded Wait one turn winter? obtain data from the spacecraft's advanced laser to create detailed maps of sea ice thickness in both: the Arctic and the Antarctic areas Information will help scientists understand how the sea ice loss affects the ocean and atmosphere. Profession: Biologist Profession: Climatologist, Geologist Profession: Climatologist Score at least: 7 Score at least: 7 Score at least: 9 Together with other explorers of early It is your first time in Antarctica - what an As you walk out of the building at research Furekal You have found water under the ice. twentieth century you went on an expedi isolate place! No air handling equipment no station, you witness an extraordinary sheet! Did you know that in Antarctica. tion to discover new Antarctic places. Your leaves rustling, no bus, no planes, and no phenomenon - HALO. It is a result from there is geothermal heat source called a cars. The only thing you hear is your strategy looked much different than today light interacting with ice crystals in the mantle plume? It is special, because the hot - started off with a large number of men heartbeat. Everything seems the same. atmosphere and due to unique atmosphere rock comes directly through the earth (your group of 10) who gradually went back Without good navigation equipment, you conditions it is best seen in Antarctica. mantle and spreads under the crust and to base having pulled most of the heavy are lost. Do you have it? Many halo types have only been observed causes it to arch equipment, the actual Pole team (5 from the South Pole. members) didn't have as much to pull. Profession: Climatologist Profession: Adventurer Profession: Adventurer Profession: Geologist Score at least: 9 Score at least: 11 Score at least: 11 Score at least: 9 Since 2012, ice losses have tripled. Every You forgot glasses in the base camp. You are flying over floating ice and it is Aurora Australis! What a magnificent view! Suddenly your skin gets red and hurts. The year, around 240 billion tons of ice mass is While staring at the colorful sky you meet a extremely cold outside. Your computer lost, which causes the rise of sea level for other explorer tells you about enormous scientist who is working on the NASA freezes. Sadly, you have to postpone your Ozone Hole that lies above Antarctica. 0. 6 mm. Loss of ice surface decreases the OVATION (NOAA's Auroral Forecast) mission Wait 1 turn Antarctic biodiversity and makes scientific From now on, you will always carry extra model. These lights, as he informs you. expeditions more difficult to accomplish. glasses and inform society about currently capture the imagination of scientists like Warning! You lose one fragment of ice. increasing Ozone Hole. him, who study incoming energy and particles from the sun. Profession: Climatologist Profession: Biologist

Score at least: 9

Score at least: 9

Scientists from Operation IceBridge visited Ushuaia, Argentina to present their work to enthusiastic citizens. You listened to the presentation and learned a lot about their yearly campaigns. For the past ten years, they have been using airborne instruments to map Arctic and Antarctic areas. By measuring and collecting data, they get better inside view of rapidly changing Greenland and Antarctic ice. Profession: Climatologist Score at least: 9		During one week expedition, you spend a day walking on Polar plateau, where you experience headache, blurred vision, temporary loss of vision and pain. Moun tain guide diagnoses you with snow sickness which is caused by exposure to sunlight, reflected from ice and snow and advise you to rest. You wait 1 turn.	It is year 1920 and you are preparing for polar expedition. For eye protection you are deciding between goggles with smoked glass and piece of leather with a slit. Rein deer fur boots and gloves, canvas trousers, hooded smocks and woolen undergarment are already packed. It is unbelievable, what 100 years of innovation in polar equipment Profession: Geologist Score at least: 7
You are in the early decades of twentieth century, packing your equipment. Don't forget your rein deer sleeping bags for cold nights, sledges made of wood, leather and rope. You have to make sure that your animal friends are feeling comfortable too – make snow shoes from bamboo and leather for ponies. Profession: Adventurer Score at least: 9	In 1998, NASA launched Tracking and Data relay satellites (TDRS), which enable data from spacecraft to reach earth, provide telemedicine and internet to researchers at the South Pole. Once famous explorer Robert Scott's team was on the Polar Plateau, they were on their own with no means of communication. Imagine yourself, standing alone, hundreds of miles away from any civilization and not being able to contact it! Profession: Adventurer Score at least: 11		