**Mission: Off to Space**

**Info block:** You are already an advanced astronaut who went through basic missions. In this mission you will learn skills that you need to the distant, mysterious universe.

**1. Sun Section**

**Task assignment block:** Go to the Sun Section exhibit. The sun is a star. Similar to what we find in the middle of many planetary systems to which we will head during our space travels. Remember the time it takes you to put together the exhibit.

**Answer - add data (time) block:** Enter how long it took you to put together the exhibit.

**Well done block:** Good – your time is excellent and you have acquainted yourself with the structure of the star.

**Sorry block:** Perhaps next time you will be faster. However, we believe that you found the Sun structure interesting.

**2. Star Formation**

**Task assignment block:** During your journey through space you will encounter many types of stars. Even the stars are evolving - are created and destroyed. Find out (and type to the terminal) the fate of stars which initially have a mass of 15 Suns.

**Multiple options block:** Type to the terminal the fate of stars which initially have a mass of 15 Suns.

a) neutron star

b) white dwarf

c) black hole

**Well done block:** Thanks for the correct answer. It is really true.

**Sorry block:** Sorry, this star in fact becomes a neutron star. We hope you will be luckier with the next exhibit.

**3. Planets by density**

**Task assignment block:** You already know that some stars have planets. This is where we will land during our space travels. Find the Planets by density exhibit and find out which planets have the largest and the lowest density.

**Answer - add data (name) block:** Typethe name planet with the lowest density to the terminal.

Correct answer: Saturn

**Well done block:** Well done! On our way across the universe we are interested in Earth-like planets - terrestrial planets. They have a relatively high density, like the Earth. During your space travels, you wish avoid low-density gas giants - they would be impossible land on.

**Sorry block:** Thank you for your answer, but the answer was Saturn. We wish you more success the next time. During your space travels, you wish avoid low-density gas giants - they would be impossible land on.

**4. The electromagnetic spectrum**

**Task assignment block:** We must be very careful during our space travels. We examine it using numerous methods and different wavelengths. This is the only way to avoid all of its hazards. Near the Electromagnetic spectrum exhibit, select an object and explore it at all wavelengths. Of the possible wavelengths below, one is missing: gamma, ultraviolet, visible, infrared, microwave and radio. Use the exhibit to find out what wavelength it is and what its range is.

**Multiple choice block:** What wavelength is the one missing in the list above?

**Type the correct answer: X-ray**

**Well done block:** Well done, proceed to the last exhibit.

Sorry block: Sorry, it was the X-rays, perhaps you'll have better luck with the last exhibit.

**5. Black hole**

**Task assignment block:** During our travels in the deep space we will encounter hazardous objects with immense gravity. Use our simulator to search for these objects.

**Type the answer block:** Type to the terminal how many attempts it took you to find all ... black holes.

**Well done block:** Well done, you really are an excellent black hole hunter!

**Sorry block:** Sorry, will have to be more careful about the black holes on your way through the universe.

**If included:**

**Block summary**

Well done, you have completed this advanced space mission with X out of Y points. You have been promoted to the rank of Cosmic Captain.

Congratulations! You are very experienced astronaut now. Get acquainted with other exhibits that will complement your knowledge

List of other missions