A DICE GAME

Activity developed by a teacher

A dice game for the classroom

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BRIEF DESCRIPTION

A simple activity where students are introduced to different space careers by playing a dice game, after which they have to write a text or a theatrical play about the theme.

Category
Space

Type of activity
Game

Education level:
From Primary to Secondary School

Age range
6-18

Time
1-2 hours

Supervised for safety:
No

Cost:
Low (<5€)

Group size:
Group

Location
Indoor (small, e.g., classroom)

Core Skills
Asking questions
Engaging in argument from evidence
Communicating information

Type of learning
Fun learning

KEYWORDS

Space; space career; solar system; space mission.

GOALS

- To introduce students to space related careers.
- To identify students' interests and hopes for the future.
- To promote space careers as a motivation for learning and studying STEM (Science, Technology, Engineering and Maths) at school.
- To explore and to research about possible future space careers and space missions.

- To investigate space science topics and phenomena which relate to space careers.

LEARNING OBJECTIVES

Students will be able:

- To identify and explore skills that are important in the pursuit of a career related to space;
- To identify current and future space careers, and their importance to humankind;
- To image future space missions within our Solar System.

EVALUATION

- Ask the student to identify some space careers.
- Assess the originality of the text or theatrical play describing the space mission to a body of our Solar System imagined by the student, checking if the required skills and importance of the job to humankind were indicated.

MATERIAL

- Computer or tablet (not mandatory, but useful)
- Notebook
- Pen or pencil
- Paper (A4 or similar)
- Scissors
- Ruler

FULL ACTIVITY DESCRIPTION

Start your class by introducing the theme of spacial sciences and related careers to your students. Give some examples of space careers and highlight their importance in our everyday lives. You can find several resources in the Internet, but the activity "Meeting with space jobs: do you want to follow a space career?" has a comprehensive list of space careers and resources you can use for your introduction.

Remember your students they will spend their lives in the 21st century, and that the future always offers unpredictable opportunities. Humankind has already put a few space stations into orbit, including the International Space Station (ISS), which is

permanently inhabited by scientists and astronauts, and more are expected to come; space probes will explore new planets, natural satellites and asteroids; there will be manned missions to our Moon and/or to other planets, such as Mars…

These are only examples of the scientific and technological accomplishments happening in the exciting future ahead of us, and that humankind currently dreams of.

Invite your students to build a couple of dice (see Figure 1) and to play a game that will allow them to introduce several space related careers, such that astronaut, astronomer, biologist, meteorologist, and others.

Instructions

- In a sheet of paper (A4 size or similar), draw/print the two structures depicted in Figure 1, cut them with scissors, and build the corresponding dice, using glue or tape.
- On each face of one die, write down the name of a space-related job: astronomer, astronaut, biologist, chemist, physicist, geologist, medical doctor, meteorologist, engineer… Students must build their own list and pick six jobs from there (use the list in the activity "Meeting with space jobs: do you want to follow a space career?" as a reference).
- On each of the faces of the other die, ask students to write down the names of six planets and/or natural satellites of the Solar System, excluding the Earth (Mercury, Venus, Mars, the Moon, Europa, Ganymede, Titan, Enceladus, Pluto, Ceres, etc.).
- To play the game, students must throw both dice and to image a story using the two words that were rolled out. Students must write the story down in their notebooks or in a text editor (in the computer or tablet). They can add drawings and/or pictures.
- Invite students to present their stories to the class. Theatrical plays (that can be staged) should also be encouraged!

CONNECTION TO SCHOOL CURRICULUM

This activity is related to STEM subjects, such as Mathematics, Statistics, ICT, Physics, Chemistry, Biology, Astronomy, Geology, and others. It also develops writing skills and communication skills, therefore being linked to arts and languages subjects.

CONCLUSION

Awake on your students the curiosity for space exploration and for the importance of space missions in our lives, and encourage them to study a space career.

Students can present their stories by reading their texts or by staging them in the form of a theatrical play.

AUTHORS

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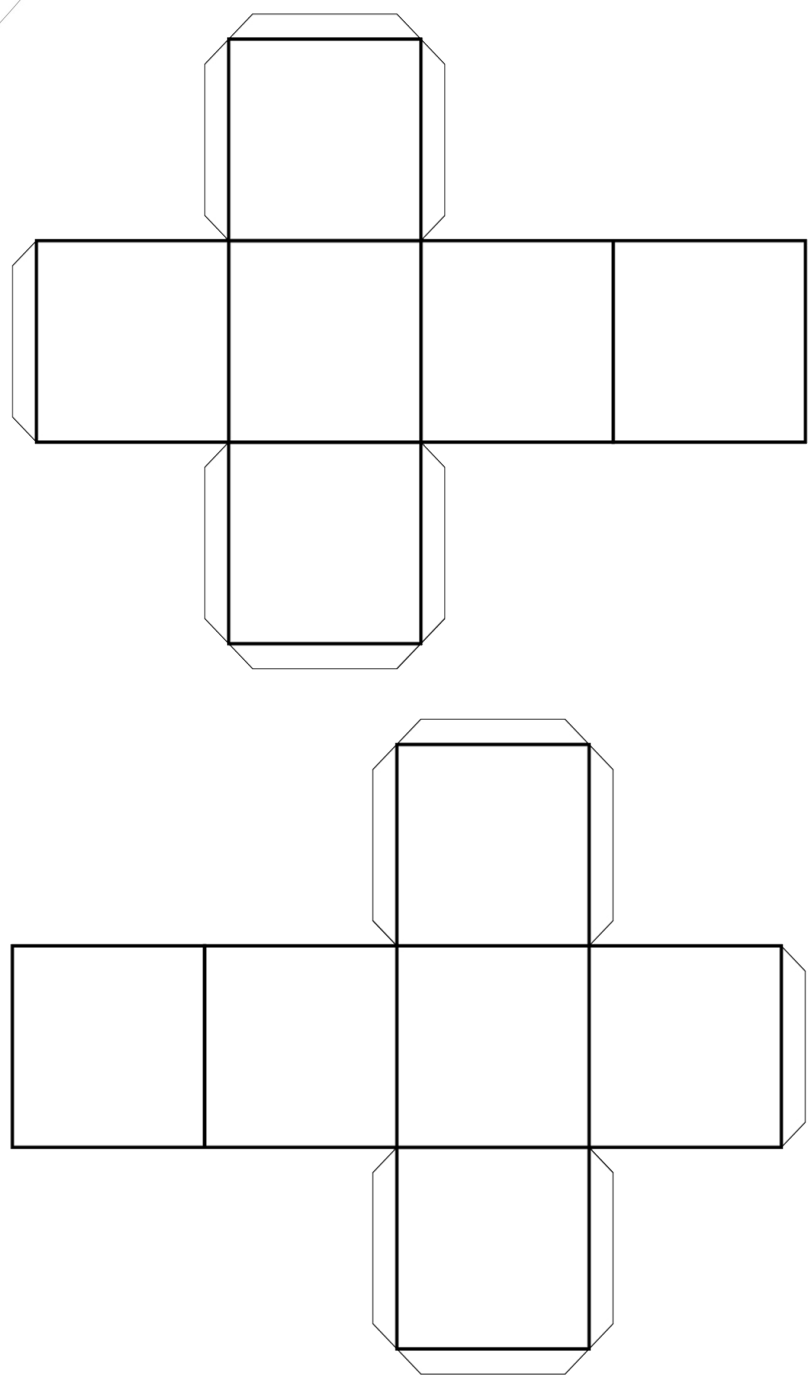

Figure 1: The two dice to be built and used in the game. On the faces of one die, students must write down the name of a space job; on the faces of the other die, students have to write down the name of a planet (excluding the Earth), natural satellite or asteroid of our Solar System. After throwing the dice, students have to write down a story with using the two words they got as keywords.

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