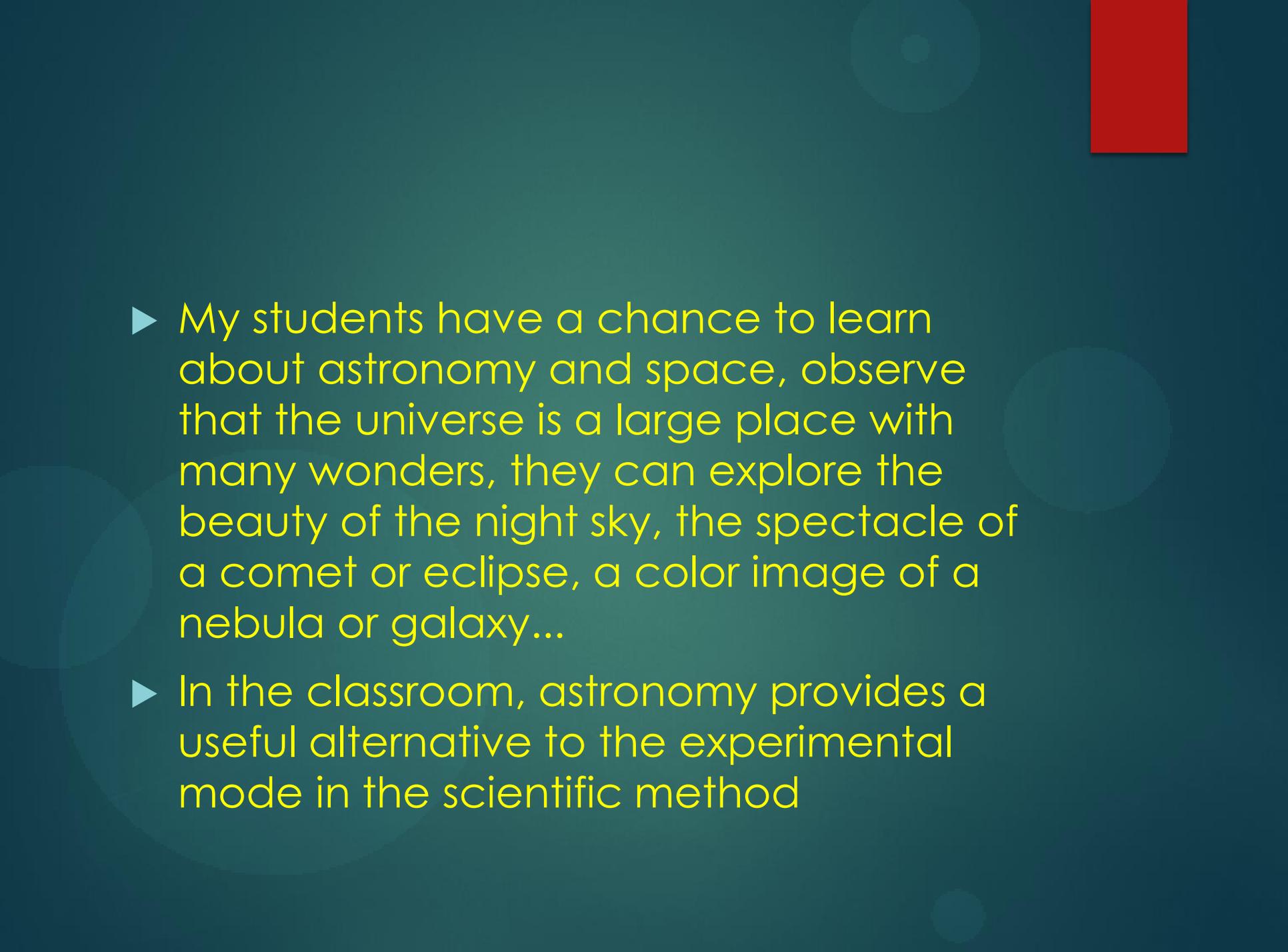


# Have fun with astronomy

IVANA GUGIĆ, MATH AND PHYSICS TEACHER,  
CROATIA

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- ▶ Math and physics teacher in Primary school Frana Galovića, Zagreb, Croatia
  - ▶ Astronomy group for kids age of 10-15
  - ▶ Participating in astronomy competitions on national level

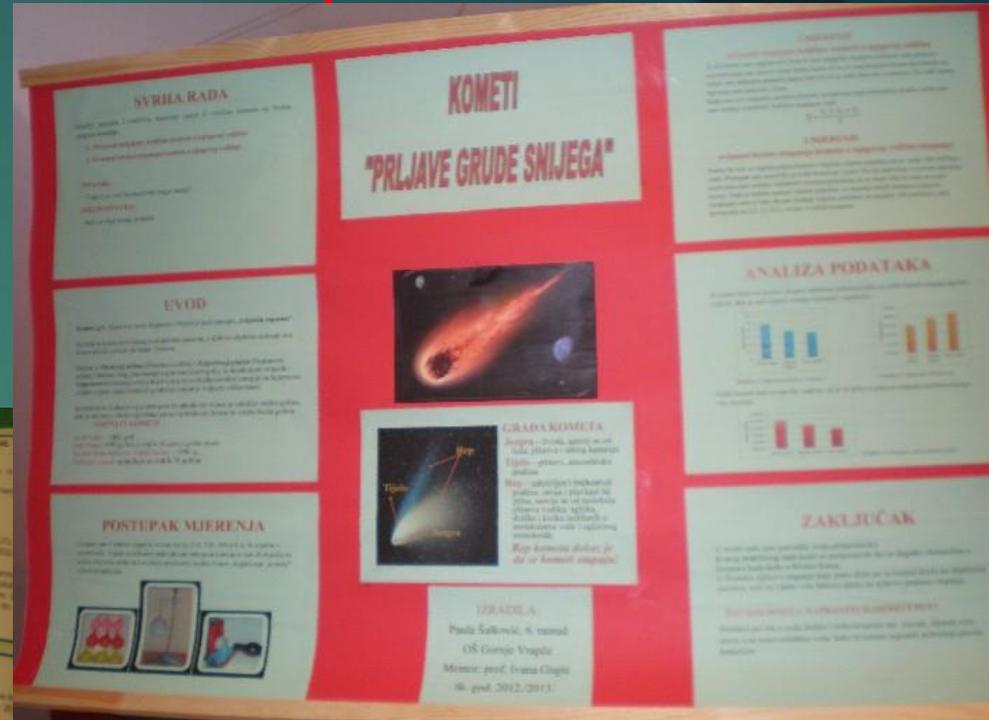
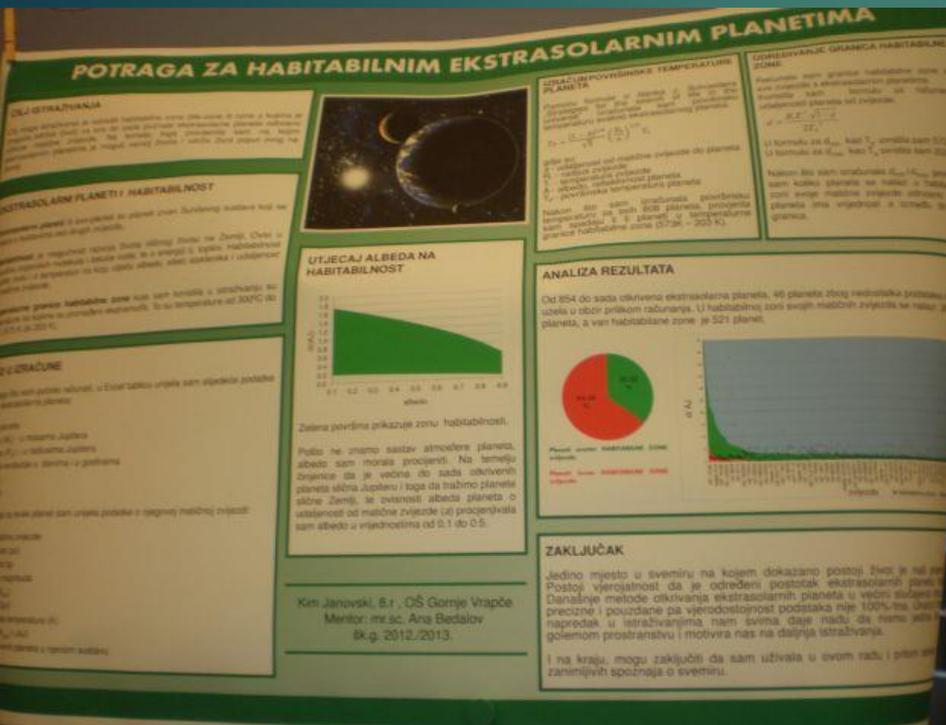
- ▶ In Croatian schools astronomy is not very popular science
- ▶ As a subject astronomy doesn't have a curriculum in Croatian schools
- ▶ Students can learn about astronomy in astronomy summer camps held in observatory or in some schools there are astronomy groups
- ▶ Croatia has few astronomical observatories, the most famous one is called Višnjan.

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- ▶ My students have a chance to learn about astronomy and space, observe that the universe is a large place with many wonders, they can explore the beauty of the night sky, the spectacle of a comet or eclipse, a color image of a nebula or galaxy...
  - ▶ In the classroom, astronomy provides a useful alternative to the experimental mode in the scientific method

# Example of simple school activities

- ▶ Activities in Astronomy can be used to illustrate many concepts of physics and maths: gravitation and relativity, light and spectra, measure units, geometry,...
- ▶ It can be used also in a geography class, it provides examples of comparative planetology.

# Posters for national competition in astronomy



# Solar cooker

In this activity students experiment with a solar cooker to discover that sustainable energy and environmental innovations are the most efficient, practical and necessary for us to have a better and healthier life.

Through hands-on activity students get to learn the science behind solar cookers, develop interest in the topic of saving energy, and understand how scientific innovations affect their surroundings and everyday lives.

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- ▶ Students work in teams (3-4 students in one team/group) to build a panel solar cooker model that embodies the basic principles of a solar cooker, from hypothesis of related parameters and test them through various investigation activities.

- ▶ In this experiment with use of tin aluminium foil in order to catch as much sunlight as possible. The cooking surface is black construction paper because it retains heat very well.

- ▶ Energy transformations in the process of solar cooking example:

Solar energy (light) → thermal energy (heat) → chemical, kinetic energy (food)





# Meteors and craters

- ▶ This activity investigates the formation of craters. You'll see how the size and speed of a meteorite's impact affects the properties of craters. Students will become familiar with the terms meteor, meteoroid, and meteorite.
- ▶ Students observe how does the size of the craters compare with the size of the meteorites that made them, does a high-speed meteor make a different type of crater than a slow-speed meteor?



# Math in Astronomy class

- ▶ In this activity students are making posters that are showing distance of planets from the Sun.
- ▶ Students had to find real distances of planets from the Sun and then draw those distances in scale that can fit on the paper.
- ▶ This activity is also used to repeat measurement conversion that student learn in math class.



Thank you for your attention!

