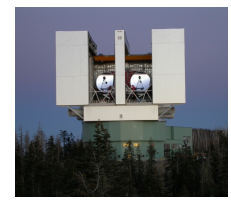
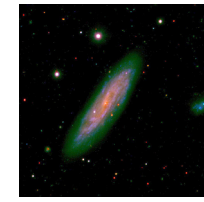




THE OHIO STATE UNIVERSITY



## ”WHY DO WE STUDY SCINEECE?”



SULTANA N. NAHAR

Astronomy, Ohio State University, Columbus, Ohio, USA

Organizer: H.G. Combs:

**FEEP (First Educational Experience Program)**

**”AVALON ELEMENTARY SCHOOL”**

**5220 Avalon Ave, Columbus, OH 43229**

**April 1, 2019**

# STEM: SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS

- Why choose STEM fields?
  - They are part of life, needed for advances for humanity, for survivability - will give an example from Astronomy
- Why both males and females?
  - Each group: Half of the population - half of the intellectual power to make advances
- Should we waste our intellectual power?
  - NO!



# Dinosaurs ruling the earth: 65M years ago Asteroid impact depleted them



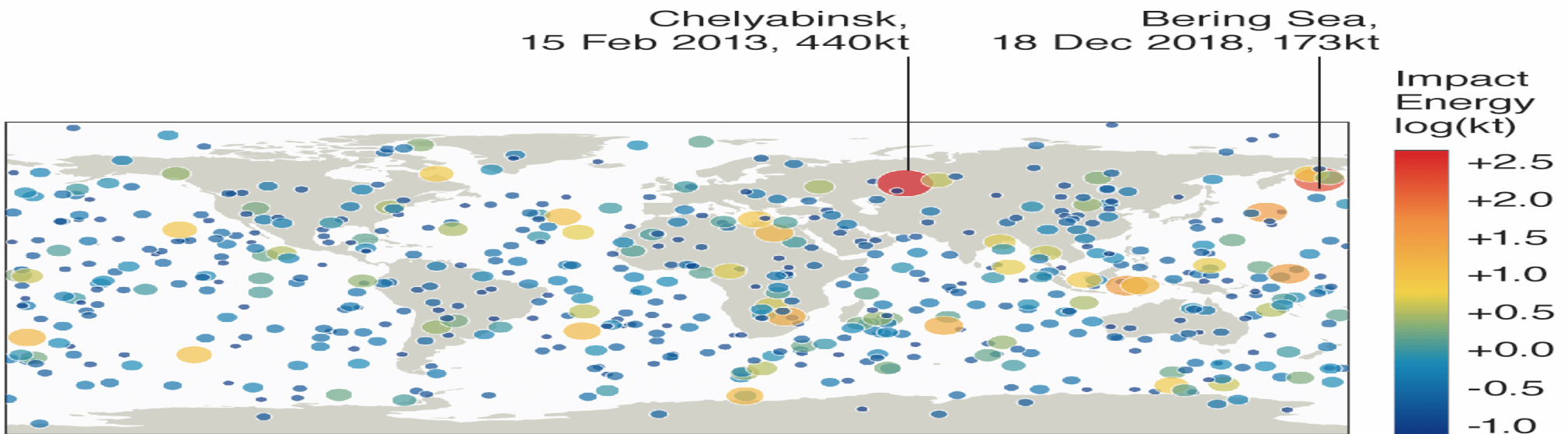


# ASTEROID HITS ON THE EARTH

- A huge fireball exploded in the atmosphere, Dec 2018



## Fireballs reported by US government sensors, 15 Apr 1988 - 15 Mar 2019



# OUR IDEAS FOR SURVIVAL: LASER TRACTOR BEAM FOR DEFLECTION OF THE ASTEROID (STAR TREK)

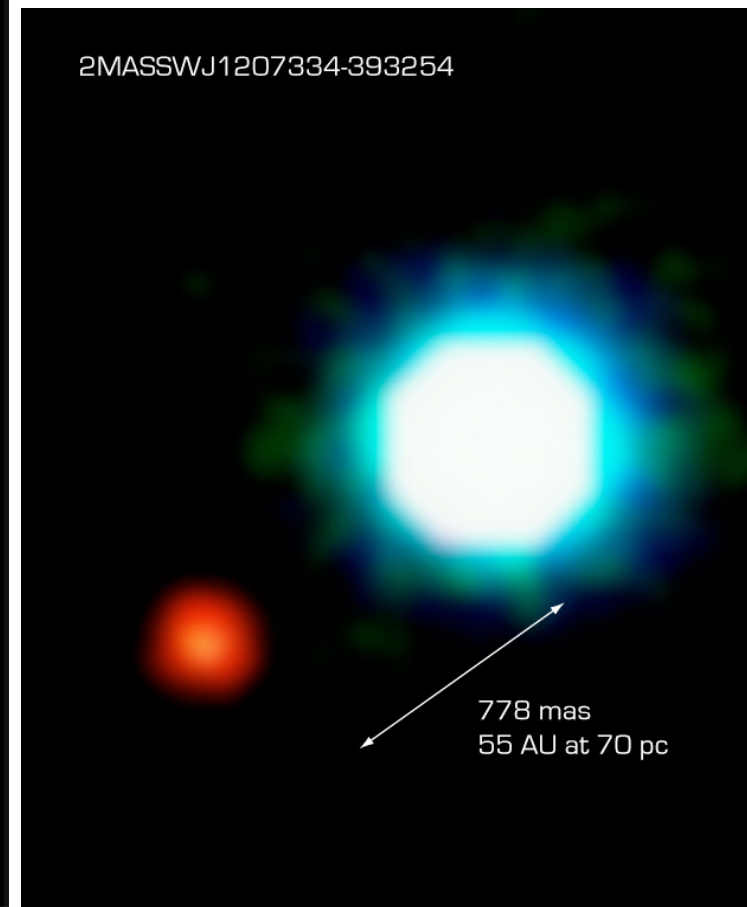
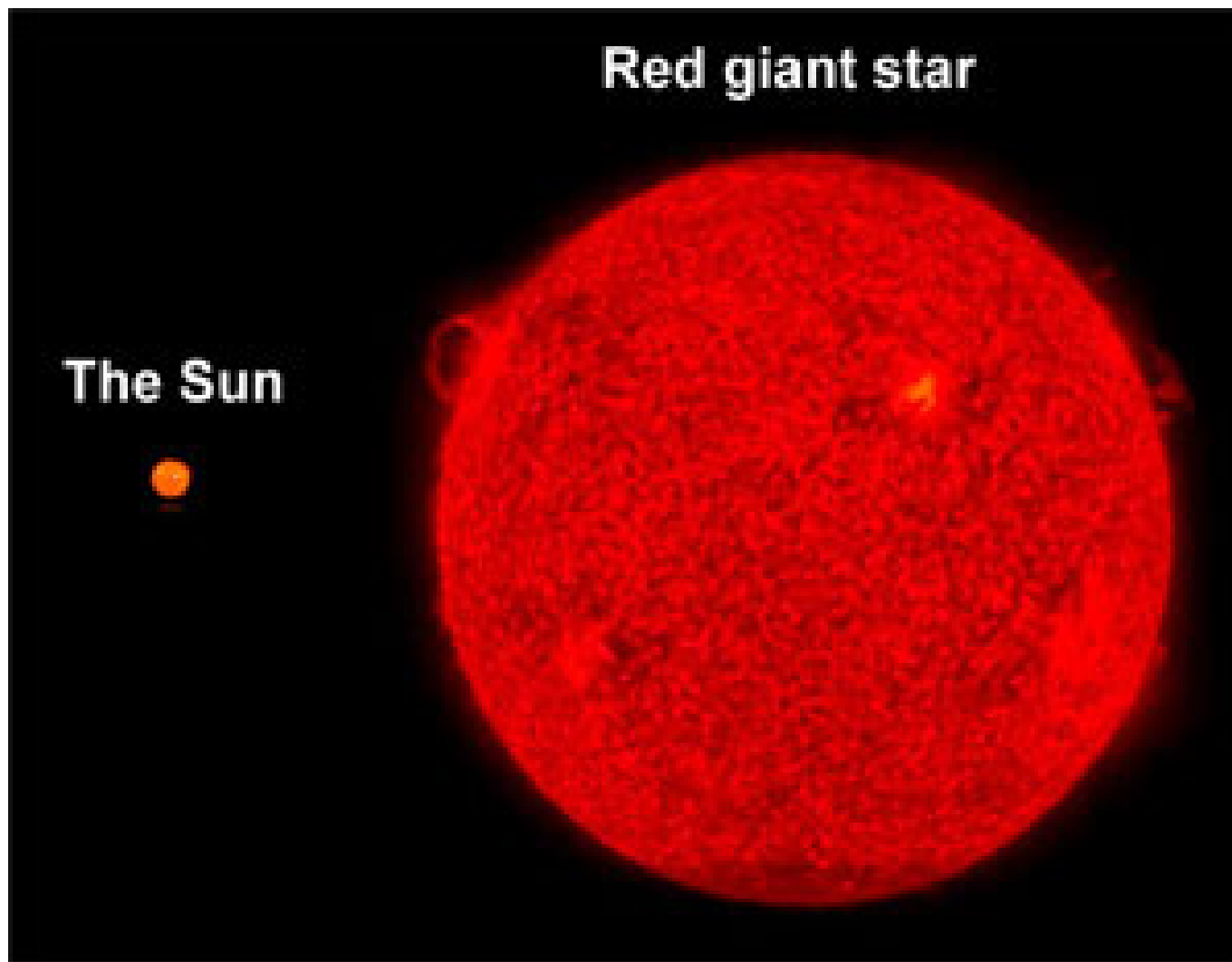
- Requires much scientific advances for such a beam





# LIFETIME OF OUR SUN: SEARCHING FOR A HOME

- Sun's fate after 6-7 billion years - Red Giant which will engulf all planets. **We need to survive.**
- Searching habitable exoplanets - expect to have 11 Billion planets in our galaxy - Milky Way.
- **With current technology a spacecraft will take 18 thousands years to reach the nearest star Proxima a**



## Notes from ISMWS Charter:

- Each of us, male and female, have biologically the same brain and the same capability to understand the amazing mysteries of nature, finding out the laws that govern them and implement them for our benefits and advancement. Even if we use our brain continuously, we would probably use only 10-15% of it
- No religion restricts a person from learning, gaining knowledge. Knowledge is a necessity. Islam encourages knowledge for both man and woman.
- All living forms, the world we live in, the universe around us have been created not to ignore them, but to know them for our purposes
- The more we know the universe, the nature, the human functions, living beings, the more beauty we see, the more power and control we achieve to solve problems, the more we admire Allah and His creations

# THE LONGEST RUNNING UNIVERSITY



Universit Al Quaraouiyine founded in 859 in Fez, Morocco is the oldest existing, continually operating and the first degree-awarding educational institution in the world (UNESCO and Guinness World Records[5][6])

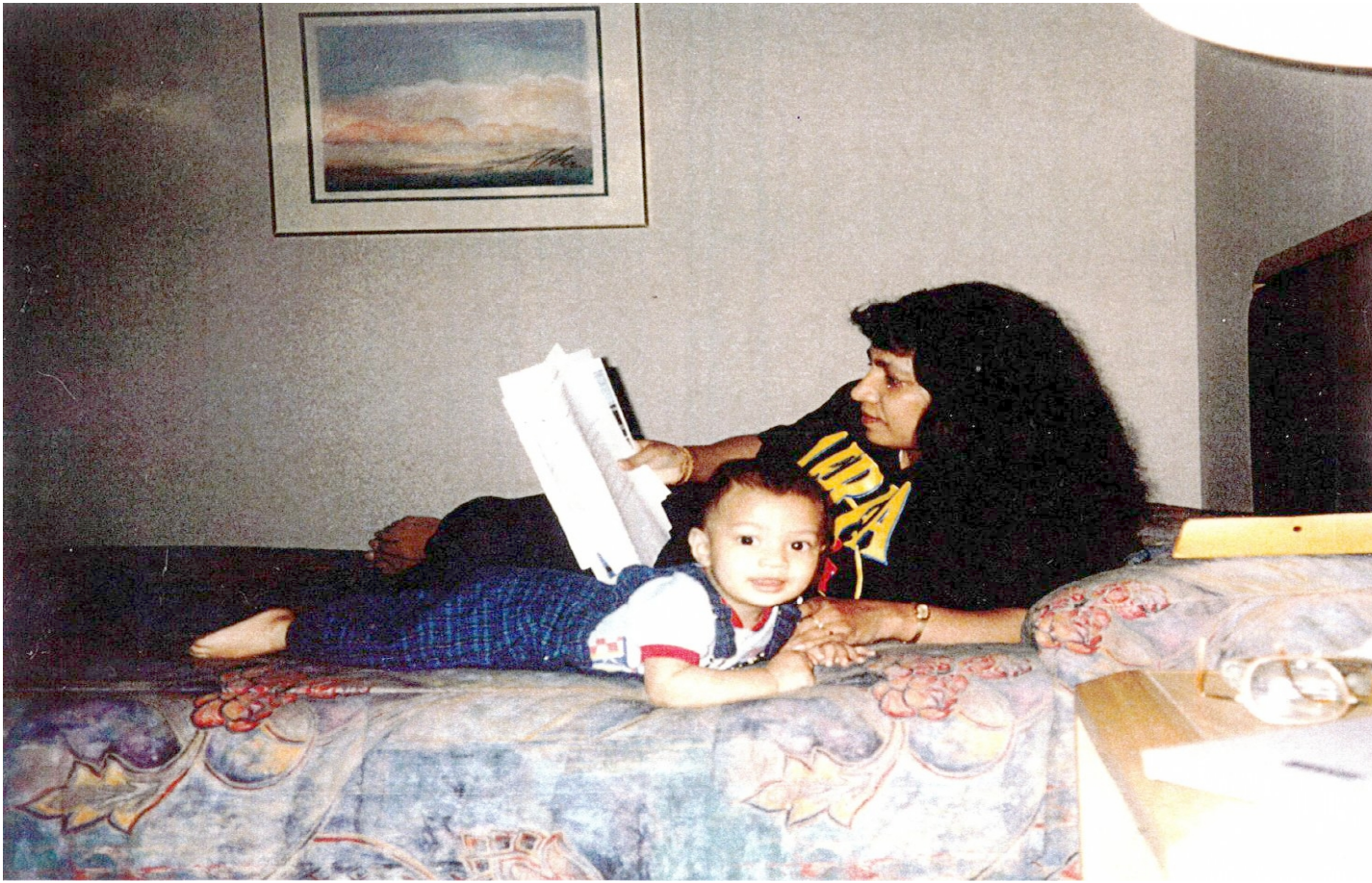
- It was founded by Fatima al-Fihri (female)



## **STEM: Different from other subjects**

- General assumption: Science is not easy
- Remember: Nothing worth comes easy
- STEM needs thinking, concentration and perseverance
- Book says: Make effort - one credit, Success - two credits
- Face the challenge - hit the boundary of your talent and power

**Pic: Sultana & son in a conference hotel room**

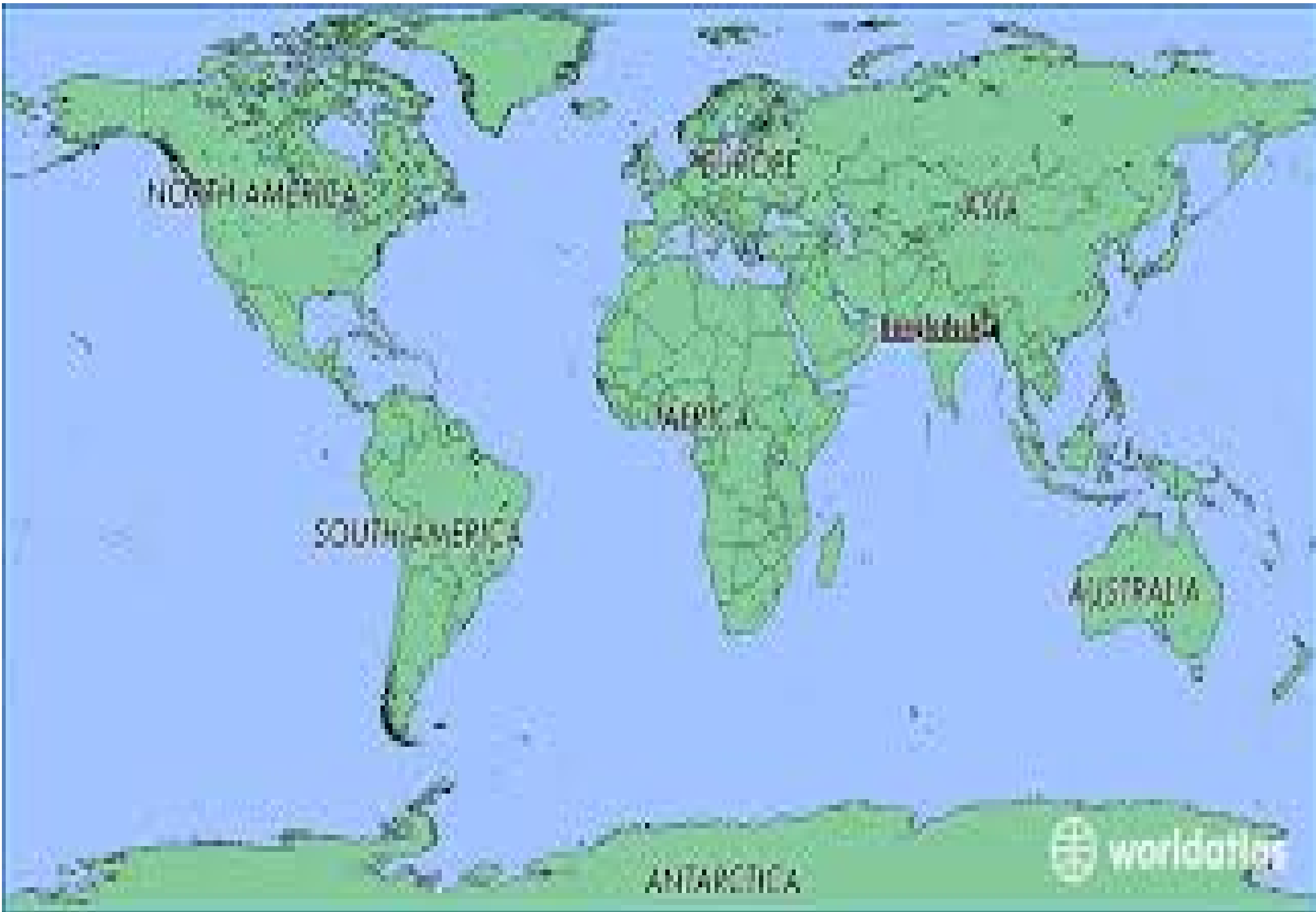


## ISMWS Notes:

- We must adopt to ignore hostile and non-supportive comments, and put downs by fellow students, friends, and others. As my father said that it is important to "Remain focused to your goal, and do not get distracted by the minor problems. They become insignificant with achievement."
- Make a practice: "I will keep at least two hours every day for my science regardless what part of the day"
  - Average: 8 hours of sleep and rest, 8 hours for various chores, use 2 hours of science out of rest 8 hours.
- Get part of any useful society, organization. You may find many benefits from it
- Always help or support, regardless of your opinion, a person if he or she is doing something productive
- If you have zero comment, remain quiet. Do not initiate anything
- If you have a negative point to make, be patient and quiet
- Remain united and promote each other
- Live respectfully with diversity & keep your own identity

# SULTANA: BANGLADESHI AMERICAN

- Born in Dhaka, Bangladesh - other side of the USA





# SCHOOLS: M.R. Girls High School, Dhaka University

