

Linking STEM and the Quran



1. Dr Mohd Noor Hisham explaining the reproductive system of cattle.
2. Trying out the mathematic component of the explorace segment.
3. Facilitator Faris Rabbani talking about the different types of vitamins that can be found in drinks.
4. Forensic science at work with detectives going through the evidence.

In the Islamic education world today, there is much focus on the relation between Islam and science involving scientific interpretations of the Quran and the Sunnah.

This has given rise to initiatives to translate this into the teaching of science, technology, engineering and mathematics (STEM) fields with the aim of strengthening Quranic-based scientific knowledge among school students.

One such effort was carried out by a group of researchers from Universiti Putra Malaysia (UPM), called the UPM STEM team, led by co-ordinator Dr Suriati Paiman and programme advisor Dr Nurul Huda Osman — both from the Faculty of Science.

The team developed a module based on the integration of STEM into an Ulul Albab programme by linking science with STEM fields and verses of the Quran as well as stories in the days of the Anbiya (prophets). The UPM STEM UA module was tried out during a Putra Science Exploration (PSE): Seeding Science Culture programme at Maktab Rendah Sains MARA Ulul Albab (UA) in Gemencheh, Negri Sembilan.

A total of 165 Form Four Tahfiz students

UA students were in need of STEM activities that could associate them with the content of the Quran that they learn every day.

DR SURIATI PAIMAN
UPM STEM
team coordinator

took part in the programme which was facilitated by 37 members of the Faculty of Science Undergraduates' Club (FASSA).

Suriati said UA students were in need of STEM activities that could associate them with the content of the Quran that they learn every day.

"For instance, materials such as iron, magnets, light, fire, and water and its properties are described clearly and in such detail in the Quran. Signs of the creation of human beings are also specified in the Quran and this was demonstrated by one of our researchers, Dr Mohd Noor Hisham Mohd Nadzir, in one of the programme activities," she said.

MRSM Gemencheh principal Mohd Ghazi Samsudin commended the fact that students were given the chance to witness for themselves the beauty of STEM fields in their daily life.

Among the activities that caught their interests were a parachute designing challenge and water rockets which were made from waste materials.

"Students were also inspired to pursue tertiary education in higher learning institutions after interacting with the undergraduates who

served as their facilitators during the mentor-mentee programme," he said.

In the evening, forensic science activities were conducted.

"Interestingly in these slots, all students took part through a variety of scenarios in crime scene simulations. Before initiating an investigation, students were given preliminary information about the material evidence and techniques of forensic anthropology collected at the crime scene to help identify a person and determine if a crime has been committed," said Suriati.

"The module assisted students to use scientific methods to gather, evaluate and test the evidence to determine whether their hypotheses about the crime is right. This helped them to identify the criminals," she added.

MRSM student Iman Haziq Hairi said the PSE programme was able to open his eyes as well those of his friends', in that learning science could be fun and interesting.

"More importantly, we want aspiring hafiz and hafizah to be able to understand STEM fields, besides having a better understanding of the Quran," he said.