

NOVA/SUPERNOVA AWARDS: AN APPROACH TO ENCOURAGING AND INTEREST IN STEM

Illiteracy concerning science and technology and failure of the public to be able to critically evaluate public policy statements in the media and on the internet are making it difficult for the nation to come to consensus on serious resource issues. In addition, the poor showing of U.S. students relative to other OEDC members and China in evaluations of academic achievement in math and science has raised concerns about future competitiveness of the U.S. economically. This is also felt in the difficulty U.S. industry is having filling certain technical positions in science and engineering with its own citizens. Consequently more and more companies are supporting efforts to increase interest in Science, Engineering, Technology and Math (STEM)-related fields among America's youth. One such avenue is for scientists, engineers and technologists such as members of TAEP to become more heavily involved with the public. The three talks in this session will discuss programs and opportunities to do that.

With regard to industry ExxonMobil recently supported an initiative by the Boy Scouts of America to develop new NOVA and SUPERNOVA awards designed to encourage an interest in STEM fields. The awards are structured at two levels: the first level (NOVA) would stimulate interest and develop basic concepts through exposure to videos, reading and novel (fun) activities woven into the requirements and would be guided by either a specialist or a non-specialist adult with the related counselor booklet. Although there are specific requirements to be met, wherever possible youth are given choices depending on their interests. The SUPERNOVA level builds on existing Scout and NOVA awards but also involves much more depth and may require additional STEM activities such as competitions or workshops, research on careers and interaction with professionals, the teaching of ideas to others (communication), independent research, and exposure to the possibility of failure with the subsequent need to try again. Both levels of the awards are designed to be age-appropriate such that expected detail and depth increase with age.

There are currently four NOVA.SUPERNOVA categories available for all age groups: Projectiles and Space (S), Start Your Engines (T), Whoosh! (E) and Designed to Crunch! (M). Additional modules are being developed or are in the approval process for Earth Science, Fish & Fishing, Space Exploration, Wildlife, Conservation, Water, and Math & Health.

Ultimately success in this area, especially at the advanced levels, will depend on the availability of qualified volunteer technical mentors and others willing to help guide the program and/or develop appropriate resource materials for the awards. This is an opportunity for TAEP members to advance interest in the field while serving the community. Members interested in helping as a counselor, mentor or on a committee should contact Glenn Buckley at grbuckley419@comcast.net.

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