SCIENCE EDUCATION AND THE 21ST CENTURY TEACHERS

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Science education is one of the major concerns of the Department of Education because Science is an essential requirement of basic education and the challenges that this presents to school. Developments through scientific studies, discovery and inventions have and will have continue to have significant influence on topics that have great importance for humanity. Sustaining life in this planet is great task not only to the scientists but to all the living things on Earth. From the basic essentials of life such as water, food and shelter to important issues that affect us all.

All schools accept the part of their role is preparing the students to the world of work. This is the reason why teachers seek professional growth by engaging to post-graduate studies, seminars and trainings that will aid them to deliver a quality education. Teachers design lessons within the grasp of the students. Fully-equipped teachers are also called 21st century teachers.

UNESCO’s conclusion in their studies revealed some points that teachers should consider why their students might lose interest in studying Science.

1. Science teaching is predominantly transmissive
   As a student learning science is simply a matter of being like a sponge, and soaking up this knowledge as it comes from the teacher or from the textbooks.

2. Science knowledge is dogmatic and correct.
   There are no shades of grey about Science.

3. The content of school science has an abstractness that makes it irrelevant.
   Science in films and in media is often exciting but that is not aspect of the Science we hear about in school. There are science topics that would be interesting but these are not in our school curriculum.

4. Learning Science is relatively difficult for both successful and unsuccessful students.
5. Many students in considering the senior secondary years saying: Why should I continue studying science subjects when there are more interactive, interesting and less difficult ones to study?

Palmer (2016) posted 15 characteristics of 21st Century Teachers. These are essential in making students more interested in the lessons presented by the teachers. This could be the equipment that teachers could use inside the classroom. These characteristics include the following:

1. Learner- Centered Classroom and Personalized Instructions
2. Treat Students as Producer
3. Learn New Technologies
4. Go Global
5. Be Smart and Use Smart Phones
6. Encourage students to make a Blog about conservation of Nature.
7. Go Digital
8. Collaborate
9. Use Twitter Chat
10. Connect
11. Project-Based Learning
12. Build Your Positive Digital Footprint
13. Code (Use codes in teaching)
14. Innovate
15. Keep Learning

As new ways and new technology keep emerging, learning and adapting is essential. In line with this, teachers must inculcate the importance of Science in all life forms in this planet. The most important of all is our life, how you cope up with the changes brought about modernization.

Reference:

https://www.edutopia.org/discussion/15-characteristics-21st-century-teacher