

STEM Society Meeting, February 9, 2016

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1 About the STEM Society and the STEM Society Website

STEM is an abbreviation for Science, Technology, Engineering and Mathematics. The acronym STEM is commonly associated with K-12 education, but our use of the term is only slightly bound to this meaning. There are over one hundred people on the mailing list, although a much smaller group attends any one meeting. We meet on the second Tuesday of each month at the Trailside Center at 99th and Holmes in Kansas City, Missouri. The meetings are open to all. The start time is 6PM. We make presentations, have discussions, and have demonstration experiments. These relate to Science, the History of Science, Mathematics, Engineering, Philosophy and Technology at all levels. The topics have ranged from a technical discussion of the Mathematics of General Relativity to scientific experiments for young students.

These meeting notes contain links to many other documents, which may be viewed or downloaded by clicking the link. A partial list of documents can be reached by clicking the heading **Documents**. The meeting notes may also be viewed in an archive file (archive.pdf), which is in the list of documents. Many of the documents are PDF files. They may be viewed or downloaded to the computer by clicking, provided Adobe Reader, or another program capable of reading PDF files, is present. There are many more documents available at the site than are listed under **Documents** because the documents.htm file is not at all up to date. The last time I checked, about March 2014, there were about 350 document files on the site. We are in the process of creating better techniques for finding documents and authors. The first meeting of the STEM Society was in November of 2006. For several years we used the content management program called Joomla. It had a fancy looking interface, but was hard to use. It overran the space somehow at our internet provider Bluehost. So we now have a very simple HTML site. It is not so slick looking as Joomla, but is very easy to maintain and modify.

The web site is:

<http://www.stem2.org/>

Direct to the documents list:

<http://www.stem2.org/je/documents.htm>

Direct to the archive file:

<http://www.stem2.org/je/archive.pdf>

2 The February 9, 2016 Meeting Announcement

The February meeting of the STEM Society will take place on the second Tuesday of the month, February 9, 2016, at the Trailside Center at 99th and Holmes in Kansas City, Missouri. The starting time is 6PM.

Questions, Topics and possible Discussions:

(a) Tom Grant: "I would like to continue my Nuclear Series for the February meeting 2/9/16. I have a presentation that I have entitled "Isotope Tales"

that I think the membership would particularly enjoy.”

(b) Bob Kessler will talk about a virus.

(c) As always, attendees are free to bring, and should bring additional topics, things, ideas, and presentations. We need more presentations from our very diverse and experienced fellowship.

(d) If there should be time left, there are other topics available.

3 Tom Grant: Isotope Tales

Tom Grant presented several tales about the use of isotopes in explaining events, or solving problems.

Here is the list of tales:

1. Carbon 14 Dating.
2. Sports Drug Testing.
3. The Shroud of Turin.
4. The Poisoning of Alexander Litvinenko.
5. Possible Poisoning of Yassar Arafat.
6. Where did the Earth's Oceans Come From.
7. What Saves Us From Being Overrun By French People? Thermal Model of the Earth Determined by Japanese Antineutrino Detector.
8. What Isotopes have helped Earth to Keep its Surface Water?
9. What Isotope Helps Airplanes Fly?
10. What Powers Space Probes? Plutonium 238?
11. What Isotope in Your Home is Most Likely to Kill You? Rn222 Daughters.
12. The Age of the Earth. (Ignorant Quote From Marco Rubio).

13. Martian Meteorites.
14. Radioactivity in Cigarettes. Pb210, Po210. US Farmers Use a Phosphate Fertilizer Rich in Ra222 (Radium). Marijuana has much less Radioactivity.

Tom also gave a list of tales not yet told.

Here is Tom's slide show:

<http://www.stem2.org/je/ISOTOPETALES.pptx>

or

<http://www.stem2.org/je/isotopetales.pdf>

4 Bob Kessler, Discussion of the Book: The Virus of the Mind

Bob Kessler talked about a five page handout document presenting several ideas that occur in the following book:

[1] Brodie Richard, **Virus of the Mind: The New Science of the Meme**, 1996.

The handout:

<http://www.stem2.org/je/virusofthemind.pdf>