

Nanotechnology

Lioy - 2019



Nanotechnology Module

2h	Session 1	Introduction to nano; basic concepts; Memory of form;
2h	Session 2	Light and structure, surfaces
2h	Session 3	Fractals: hydrophobicity (SA only)
2h	Session 4	Presentations

Organisation of group work

Check on progress



Supporting materials

- Supporting material can be found on the TalkingAboutScience.com website:
- Nanotechnology module



Presentation

Task:

- prepare a presentation lasting 7-10 minutes of a particular topic in organic chemistry to present at the class conference
- AND
- a one page summary of your topic to share with the class

Steps in preparing the presentation

- Choose topic
- Literature search / web sites
- Plan structure of talk
- Identify areas of uncertainty – questions to ask!
- Vocabulary
- Concepts

Structure

- Introduction
- Main part
- Summary

- All participate
- Presentations will be evaluated for preparation and delivery.

Topics

1. What are the pros and cons of nanotechnology?
2. Nano in the news - recent reports of nanotechnology.
3. Biomimicry: nature as a source of inspiration for new technology
4. Nanotechnology in medicine
5. Nanosilver – uses and abuses
6. How do geckos stay on the ceiling?
7. Colour *without* colourants!
8. How does the lotus leaf stay clean?
9. Graphene and other wonder materials
10. Staying dry – extreme hydrophobicity
11. Fractals and nanotechnology
12. ...