Reference Functions in the NSDL: AskNSDL

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Diane Hillmann
AskNSDL Coordinators
Take a Tour

- https://ask.nsdl.org/
  - General Public
  - Patron
  - Expert
  - Administrator
Process

- Patron registers with nsdl.org
- Patron submits question via Web form
- Experts see questions based on selected audience and category
- Expert responds to question
- Patron receives email with response
- Answer posted to public archive
From: vrd-asknsdladm@comm.nsdl.org
To: blytheb@vrd.org
Subject: New AskNSDL Question

A new question has arrived in the Chemistry category of the AskNSDL service. If you are interested in claiming this question, please log in at:
http://asknsdl.askvrd.org/login.asp

As an AskNSDL volunteer expert, you are not obligated to answer this or any other AskNSDL question. If you feel it is outside your area of expertise and/or you do not have the time to respond, simply ignore this message.

Here is the patrons' question:

*Explain why chlorine, Bromine and Iodine have very similar chemical properties. Use electron arrangements and the position of these elements in the Periodic Table to illustrate your explanation.*
You asked:

I have heard that the second law of thermodynamics was that $S$ (entropy) $> 0$, or in laymen's terms, says that things tend toward disorder. I was trying to discuss this with a person who said they knew physics, and he stated that the DNA molecule, or life, (and therefore evolution) didn't fall under this law because energy input to the molecule makes the theory not applicable. Can you shed some light on his statement, ether explaining it or maybe explaining what he was trying to say? Thanks. Bill

Here is our expert's response to your question:

Your Answer: The second law applies to everything in the Universe (so far as we know), so your friend is incorrect that it doesn't apply to DNA. The energy organisms take in - either through food (the chemical reactions in digesting and processing food provide energy, not just material), light or some other means (e.g. heat) is what keeps life's engine's going. Like all things, without that influx of energy the processes (chemical reactions) that maintain an organisms function ("life") would cease. Then entropy ("death") does set in. At the molecular level (DNA, RNA, etc.) life is no different........
Questions

- What is the difference between a cell phone and my house phone?
- How do some scientists know (when they are putting dinosaur bones together) which bone goes where?
- What happens when a hydrogen atoms absorbs a quantum of energy?
- How does the poison in tarantulas and scorpions produced? Is it fatal to humans?
- If Einstein’s theory on the cosmology of our universe is ever proven then will this imply that dark energy and matter do exist?
- Can you give me some applications about bioinformatics in computer engineering, please?
NSDL Categories

Science, 738, 63%

Social Sciences, 10, 1%

Technology, 59, 5%

Mathematics, 127, 11%

Health, 155, 13%

Education, 39, 3%

The NSDL:
Use, Build, Join, 43, 4%
AskNSDL Audience

- Undergraduate, 115, 14%
- Middle School Student, 290, 34%
- Middle School Teacher, 10, 1%
- NSDL Partner, 20, 2%
- Other, 31, 4%
- Elementary Student, 183, 22%
- Elementary Teacher, 39, 5%
- Graduate Student, 19, 2%
- College/Univ. Faculty, 9, 1%
- College/Univ. Librarian, 5, 1%
- High School Student, 106, 13%
- High School Teacher, 9, 1%
- School Librarian, 3, 0%
- Other, 31, 4%
Volunteers

- 337 registered volunteers
- 107 answered between 1-103 questions
- USA, Australia, Canada, UK, Sri Lanka
- Need more in Health Sciences especially
## Volunteers

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>93</td>
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<tr>
<td>Academic</td>
<td>88</td>
</tr>
<tr>
<td>Private business/research</td>
<td>83</td>
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<td>Government</td>
<td>29</td>
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<tr>
<td>Library/Museum</td>
<td>9</td>
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<tr>
<td>Military, Foreign enterprise, Government/Academic</td>
<td>2 each</td>
</tr>
<tr>
<td>Medical/Academic, High School, Public non-profit</td>
<td>1 each</td>
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</tbody>
</table>
Contribute as an Individual

- **Volunteer** to answer questions in your subject area
- Volunteer to suggest Top Sites or create FAQs/Pathfinders
- Serve on an “on call” basis
- Contribute to **workspace**
Contribute as an Organization

- Adopt a section of the site in your subject area (peer review, editing, contributing resources, answering questions)
- Collaborate during special events such as Pi Day, National Engineering Week, etc.
- Fulfill community service and outreach goals
- Collaborate within Network of services according to scope/audience
- Utilize QABuilder software
Policies

- Privacy
- Abuse of Service
- Selection (VRD)
- Selection (NSDL)
Further Discussion

- **Utilize archives and transcripts**
- **Technical Standards**
- Rights (ownership, copyright)
- Other comments?
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