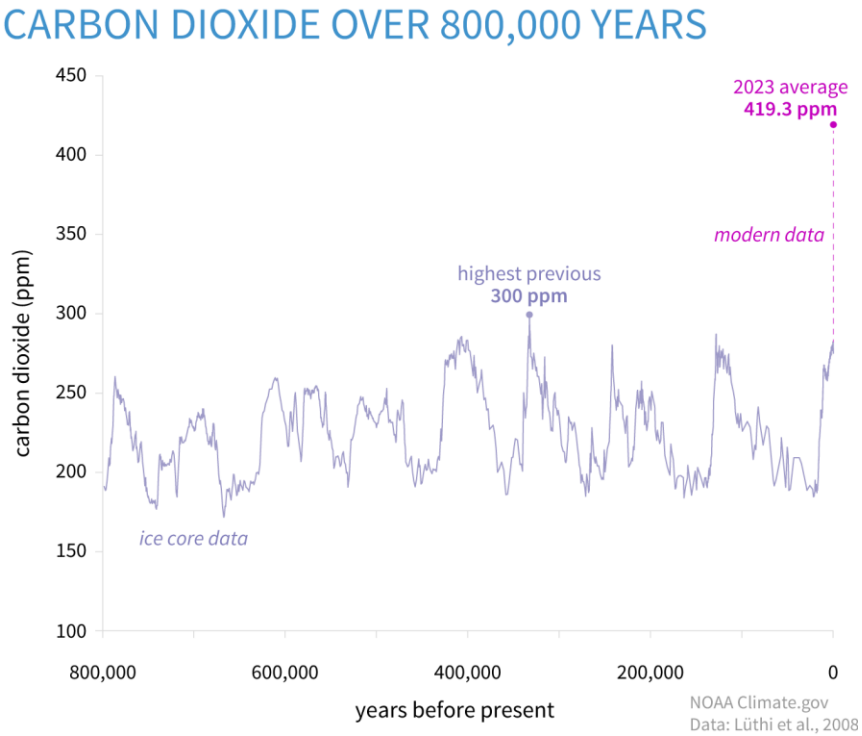
SCIENCE OLYMPIAD

Exploring the World of Science

Welcome To Meteorology - Climate



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Meteorology

1. Description: Participants will use scientific process skills involving qualitative and quantitative analyses to demonstrate an understanding of the factors that influence world climate and climate change through the interpretation of climatological data, graphs, charts and images.

Paragraph 2 lists what the students can bring

1 three ring binder with anything they can carry

US map with state names and two Class II calculators

Paragraph 3 is the detailed topic list

NOTE: All SO events have moved example questions and activities to the event pages

Basic Skills - 1

Pay particular attention to para 3. b.
Recognize the vocabulary and definitions
History
Quantifiable processes and the related equations, graphs, etc
Data and interpretation
Be specific - Answers w/units, exact names if required (read the question)

Basic Tools

Top three tools for successful competitors:

Notebook

Notebook

Did I mention a notebook?

Like most SO study/test events, the list of things to learn cannot all be memorized

Coaching - 1

- Two major requirements
  - Help construct a usable notebook
  - Provide resources to research
- Notebooks are a balancing act and iterative
- Remember that the notebook has to be usable under test pressure for 50 minutes
  - Emphasize being able to find the data (tabs)
  - Emphasize labeled graphics
  - Emphasize data that is hard to memorize
- From experience, somewhere in the 20-40 page range for B
- A reasonably sized glossary is a big help

Coaching - 2

Resources

Wikipedia is a good place to start, esp. for basic vocabulary and concepts

- Detailed topic pages for general ideas are good for a deeper understanding
- Climate change is controversial, watch for suspicious edits

NSO Event page is good https://www.soinc.org/meteorology-b

https://scioly.org Check out the wiki and the test exchange

Practice tests are a big help both for experience and notebook updating

Coaching - 3

Coaching tips

- If you have more than one kid, have them research different topics and save pages to the common notebook
- B kids require more directed coaching
- Google images or equivalent can be helpful for identification topics
- A test written to para 3. b. will have a lot of graphics and graphs and data tables
- Google images or equivalent can be helpful
- On the event page at soinc.org, Meteorology Today textbook link broken
  - Easy search to find
  - Lot's of good stuff

Coaching - 4

Tournament Day

- **Students need to know how and what questions to ask of the event supervisor**
- Don’t get bogged down on one question
- Prioritize the questions, esp. difficult questions or high value
- Debrief
  - Esp. things they hadn’t seen before

Running a ME Event

Plan ahead!
The primary goal is a ranking of competitors that accurately reflects their knowledge
In depth or pretty easy, what topics to cover
Start selecting questions and your graphics
Be sure you are following the rules
Plan out your tie breakers – you will need them
Build separate answer key
At tournament, you WILL need help to run and score (esp.)
Prep your help if possible – amateurs willing but dangerous
Check, recheck and rerecheck!!! You WILL make mistakes!!!
Virtual tests in scilympiad or Google take added skills

Some General Notes

SO is as much about the preparation as the competition
Moderation in all things
Students in control as much as possible
Coaches are there to allow students to learn
    Coaches do provide resources
A little fun now and then is not fatal
It's about the science; this is cool stuff
One of my favorite science terms: pingo

Only The Beginning

QUESTIONS, COMMENTS, SNIDE REMARKS?