

A group of students are in a hydroponics greenhouse. In the foreground, there are several white PVC pipes with holes, some containing green leafy plants. A student in a white shirt and blue skirt is holding a clipboard and looking at it. Other students are visible in the background, some looking at the plants. A sign in the background says "HYDROPONICS".

**Aim: How do I search for
a research topic?**

Mr. Gonzalez

Why research?

TRaraba.com

<http://www.trarab>



<http://eslingo.files.wordpress.com/2007/08/bridge6.jpg>



[content/uploads/2009/01/palm_treo_pro.png](#)

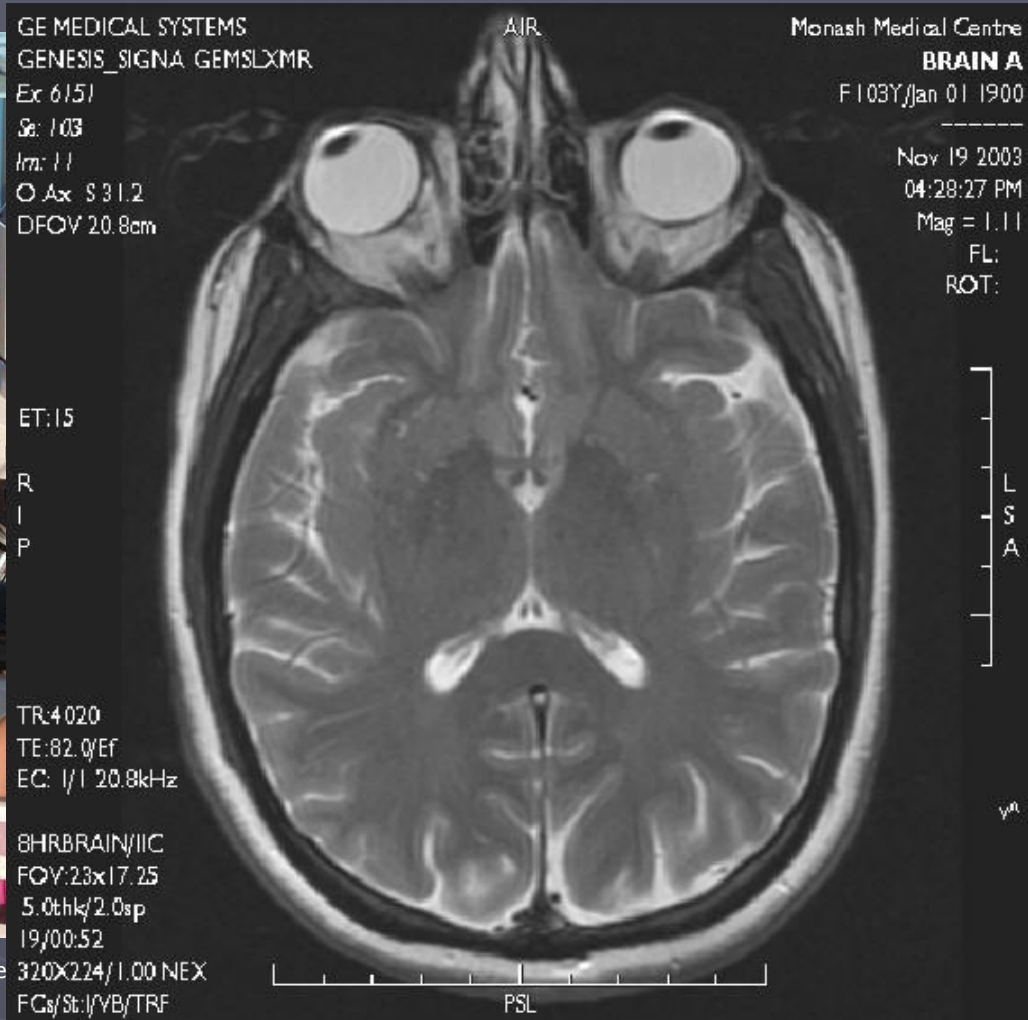
Research...

- ▶ IMPROVES OUR LIVES
- ▶ MAKES LIFE MORE FUN
- ▶ MAKES LIFE EASIER
- ▶ KEEPS US HEALTHY
- ▶ HELPS US DO THE UNIMAGINEABLE
 - ▶ GIVES US HOPE

Why research?



<http://cobweb.ecn.purdue.edu/~lorre/16/re>



http://www.londonink.com/wordpress/wp-content/uploads/2008/08/35_mri.jpg

How do you begin?

- ▶ Reading will spark your interest.
- ▶ Reading will lead you to new ideas.
- ▶ Once you're curious about something you must begin listing specific questions that come to your mind
- ▶ After a lot of thought and reading you should be ready to formulate your special question – **Scientific Problem.**

Step 1 - Topics

- ▶ Roughly define your area of interest.
- ▶ Pick 3 topics that interest you.
- ▶ Describe why they interest you.
- ▶ List key words that are specific about your topic.
- ▶ Scan your key words on the internet with a search engine or in books.
- ▶ Read at least 3 sources for each topic.
- ▶ Only trust .org, .gov, and .edu sites.

Check Step 01 Key Words

I. Explain your research area of interest and why you want to pursue it?

II. Make lists of key words by topic and read more about them by using a search engine (*i.e.* google).

CO2 Sources
Indoor Outdoor Natural
Levels Danger symptoms
Classroom

III. After reading about your most interesting topic write down specific questions that come to your mind.

1.

2.

► Next, you should've filled out the key word box on the back of Step 01.

► These words will be important next.

How do I search for journal articles and keep a chronogram?

Step 01 - Questions

- ▶ Develop questions about the your most interesting topic using your key words.
- ▶ Make sure your questions are not unrealistic, too specific, or too easy.
- ▶ Look for experienced people who can help you with your topic and discuss your questions.
- ▶ Make sure you know whether your questions have already been studied.
- ▶ Refine your questions as necessary.

Step 01 - Tasks

- ▶ One you have a good idea of what you want initially research you need to set tasks for yourself.
- ▶ The closer you get to your topic target the more you have to read - back ground hunting.
- ▶ Search the library, internet, teachers, or other sources for more background information.

Steps 02 + 03

- ▶ In Step 02 you will write down the information necessary about your reference so that you can later build a complete bibliography.
- ▶ In Step 03 you will outline and/or summarize the reference with pertinent information you will need for your project.

Once you've got information...

- ▶ Begin reading it.
- ▶ Write down words and ideas you don't know on paper.
- ▶ Look up the words or ideas (i.e. on wikkipedia, dictionaries, textbooks, e-mail professionals, etc.)
- ▶ Check the bibliography for further readings.

What to do with the info...

- ▶ Outline it.
- ▶ Discuss it.
- ▶ Get ideas from it.
- ▶ Begin to formulate tasks and objectives.

RESEARCH STEPS

BASIC

- ▶ Observation
- ▶ Question/Problem
- ▶ Hypothesis
- ▶ Procedures
- ▶ Materials
- ▶ Project Execution
- ▶ Data Analysis
- ▶ Project Presentation

DEFINE

- ▶ Time – Chronogram.
- ▶ Dependant Variables
- ▶ Independent Variables (Treatments)
- ▶ Constants
- ▶ Replicas
- ▶ Random Organization

SCIENTIFIC PROBLEM

- ▶ In the form of a question, your Scientific Problem *is* your guiding light
- ▶ You must have in the back of your mind at all times during your project