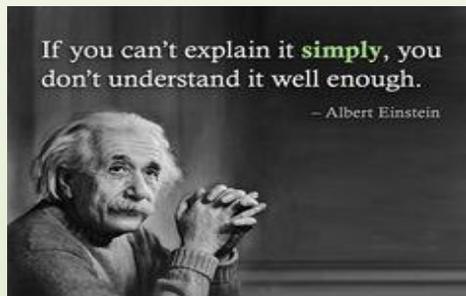


How to Study Science Like a Scientist

By Lisa Yates



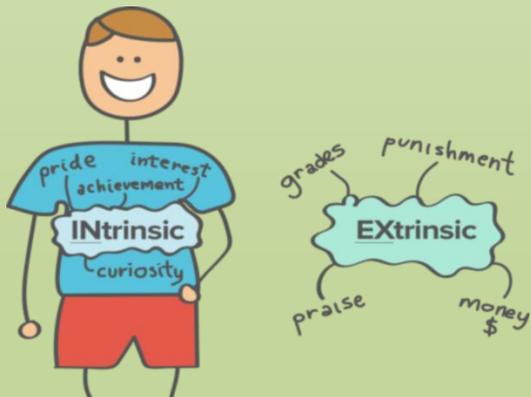
Do you find yourself uninspired and unmotivated by science related courses?

Self-motivation is one of the *keys to success* and achievement in college, as well as in the workplace.

Everyone lacks motivation sometimes. The **key** is to find a method of studying that works for your learning style and to work your least favorite subjects *first*, while you are fresh.

Finding motivation in subjects that are difficult will call for digging deep and building a framework in order to complete the tasks.

Don't look to the instructor to motivate you through snappy, entertaining lectures - Motivation needs to come from inside the learner.



STAND BACK
I'M GOING TO TRY
SCIENCE



"I am among those who think that science has great beauty."

- Marie Curie

Science courses teach analytical and logical thinking and help us to understand the worlds within and around us.

Scientists are motivated by curiosity and "what if." They are spurred by a desire to know how things work, cause and effect, how things compare with others, how systems work...

Scientists practice trial and error; accept that mistakes are part of the process and work to build mastery of concepts and ideas.

- Learning science is a process of *mastering* science concepts.
- Learning science is like building a house, first you must build a *strong frame*.
- In science, each new concept builds on the framework of *previously mastered* ideas.



Mastery begins with Readiness!

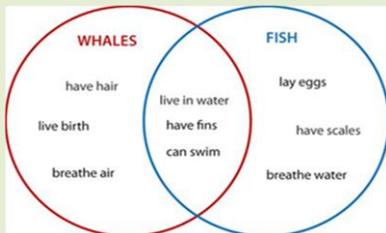
GET READY
FOR **SUCCESS**

There are 6 Readiness Factors that will help you to learn science successfully.

1. **Assess your motivation** level and build motivational strategies into your study plan.
2. **Get ready for every lecture** by previewing the material to be covered.
3. **Lock in knowledge** by reviewing notes: Find a notetaking system that works best for you and *make an appointment with yourself* review your notes within one hour after every lecture.
4. **Flow Charts** are great tools to help you understand processes and how they work. Smart Art & graphic organizing software help with this.
5. **Comparison Charts** will help master distinctions and clearly contrast differences, reducing amount of material to read.
6. **Prep systematically for tests**; practice solving problems, quiz yourself on concepts

Physical Property	Solids	Liquids	Gases
Shape	Has a fixed shape	Takes up the shape of the container	Takes up the shape of the container
Volume	Fixed volume	Fixed volume	Changes volume to fill its container
Fluidity	Does not flow easily	Flows easily	Flows easily
Compressibility	Not easy to compress	Not easy to compress	Easy to compress

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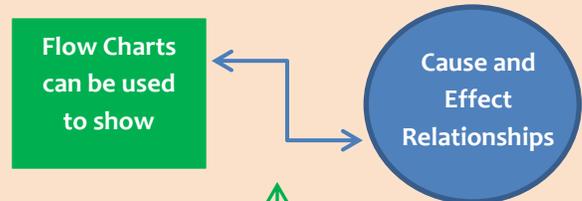


Customize reviewing your notes to suit your specific learning style.

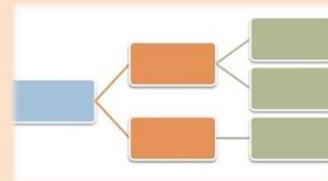


Key questions to ask as you study a flow chart

- What is the process about?
- What goes in?
- What comes out?
- What is accomplished?
- What is the catalyst for change?
- Why is this process important?
- Where in the body does the process occur?
- What body structures are involved in the process?



Create a simple/basic version of your flow chart and add details as you learn more.



A good comparison chart can reduce a whole chapter to a few lines of information.

Flow charts make a good study tool! Test yourself by covering sections and recalling the information beneath.

Allow for at least one week for exam prep!

List all the units of material to be covered and divide your time between the units.

Need extra help/support? www.Khanacademy.org
Math AND Science!