Study skills – KTH

with

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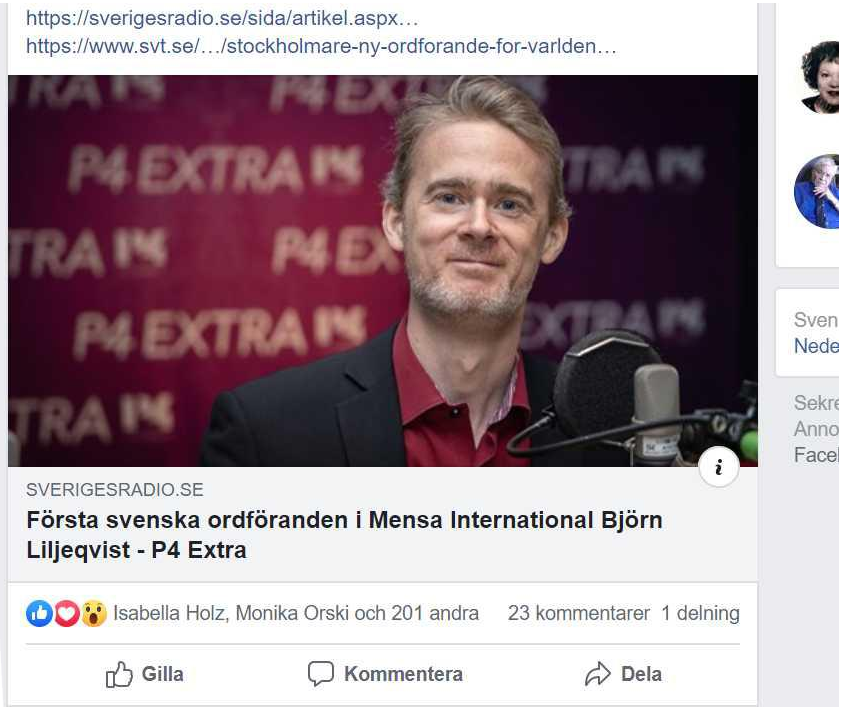
BrainGain


Plugga s
och lär di
Björn Lilj
PLUGGA
SMARTARE.
Björn Liljeqvist


https://sverigesradio.se/sida/artikel.aspx…
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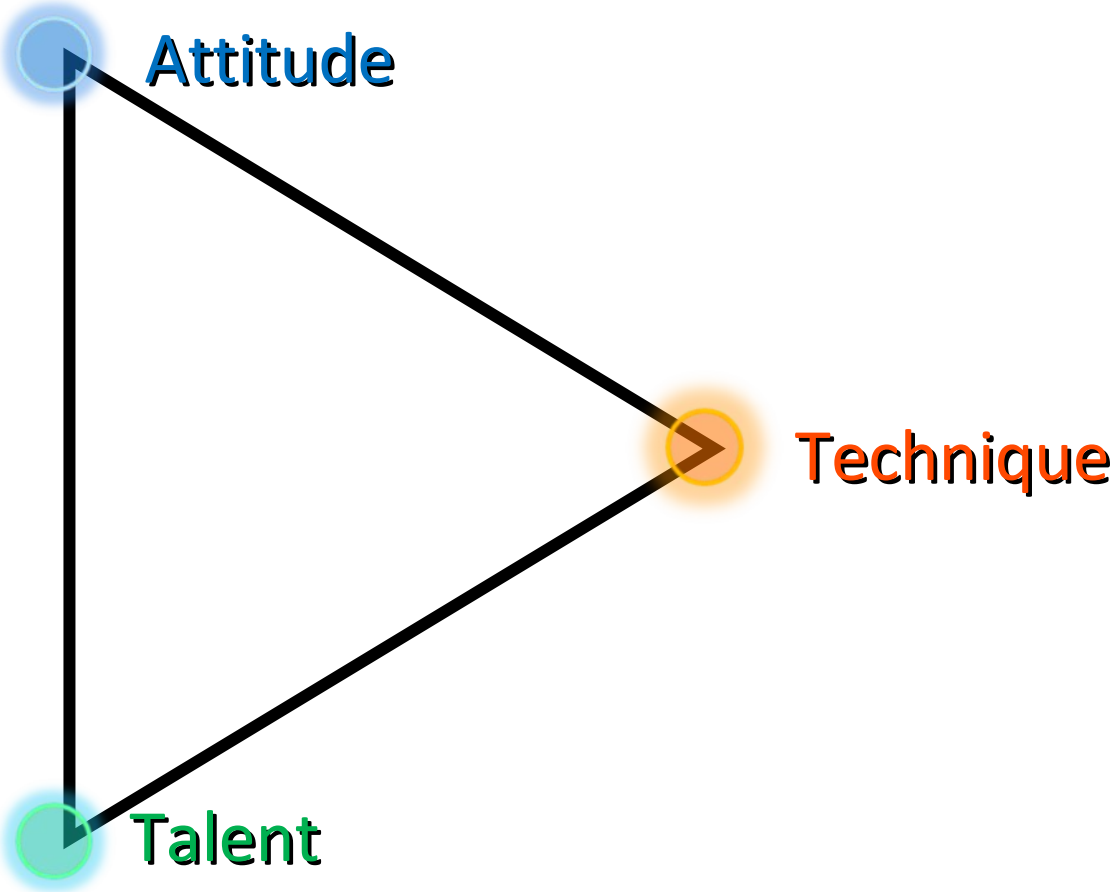
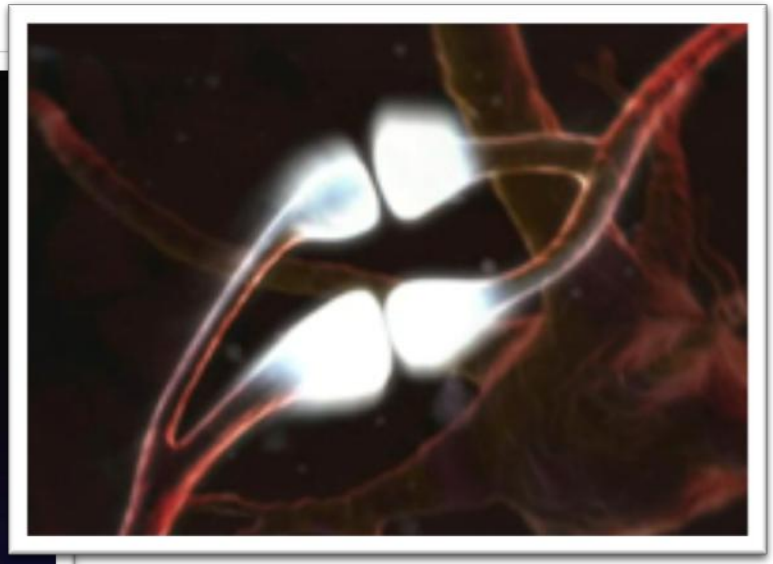
P4 EXTRA
SVERIGESRADIO.SE
Första svenska ordföranden i Mensa International Björn Liljeqvist - P4 Extra
Isabella Holz, Monika Orski och 201 andra
23 kommentarer 1 delning
Gilla
Kommentera
Dela

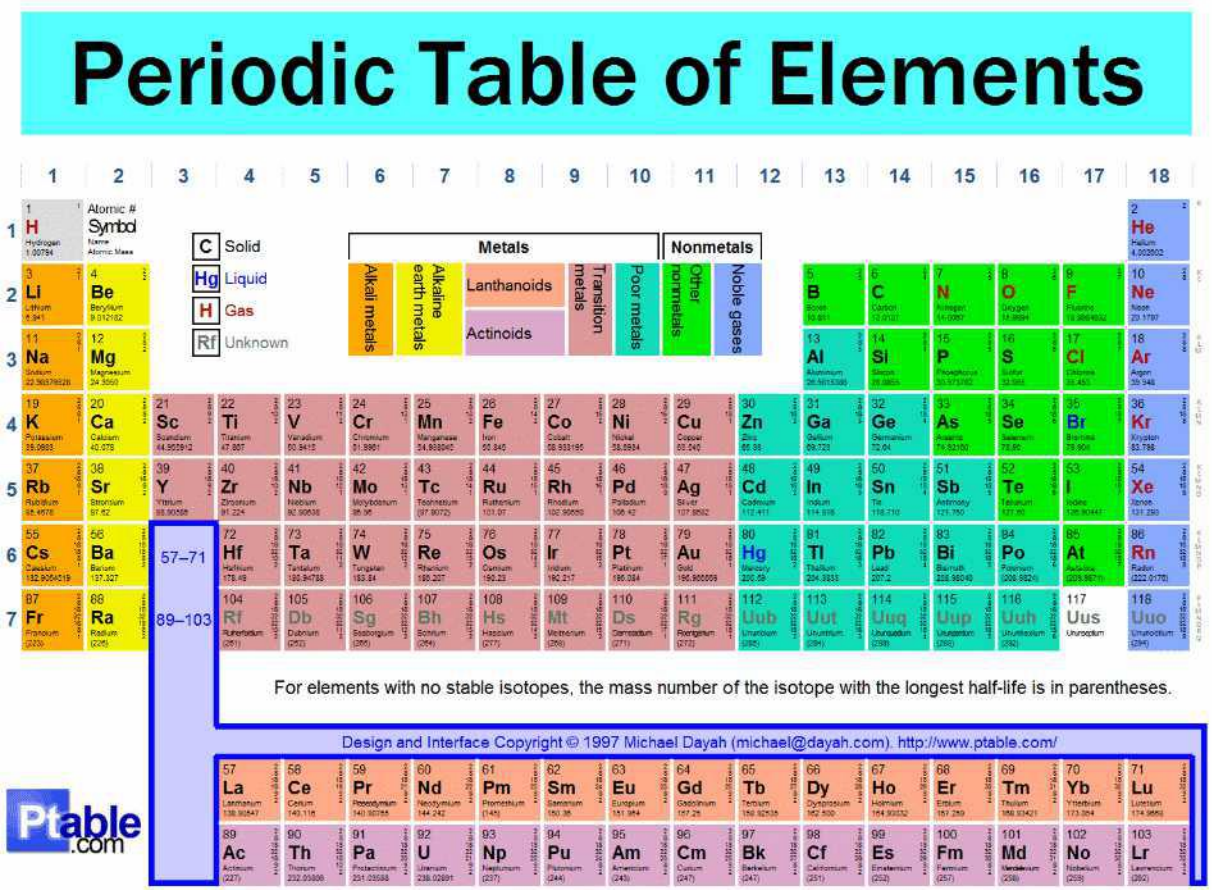
Results = T * A * T



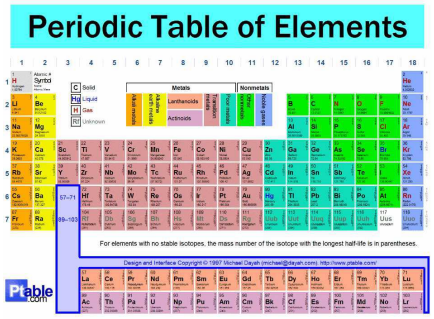
Biology of Learning



Knowledge as simple facts



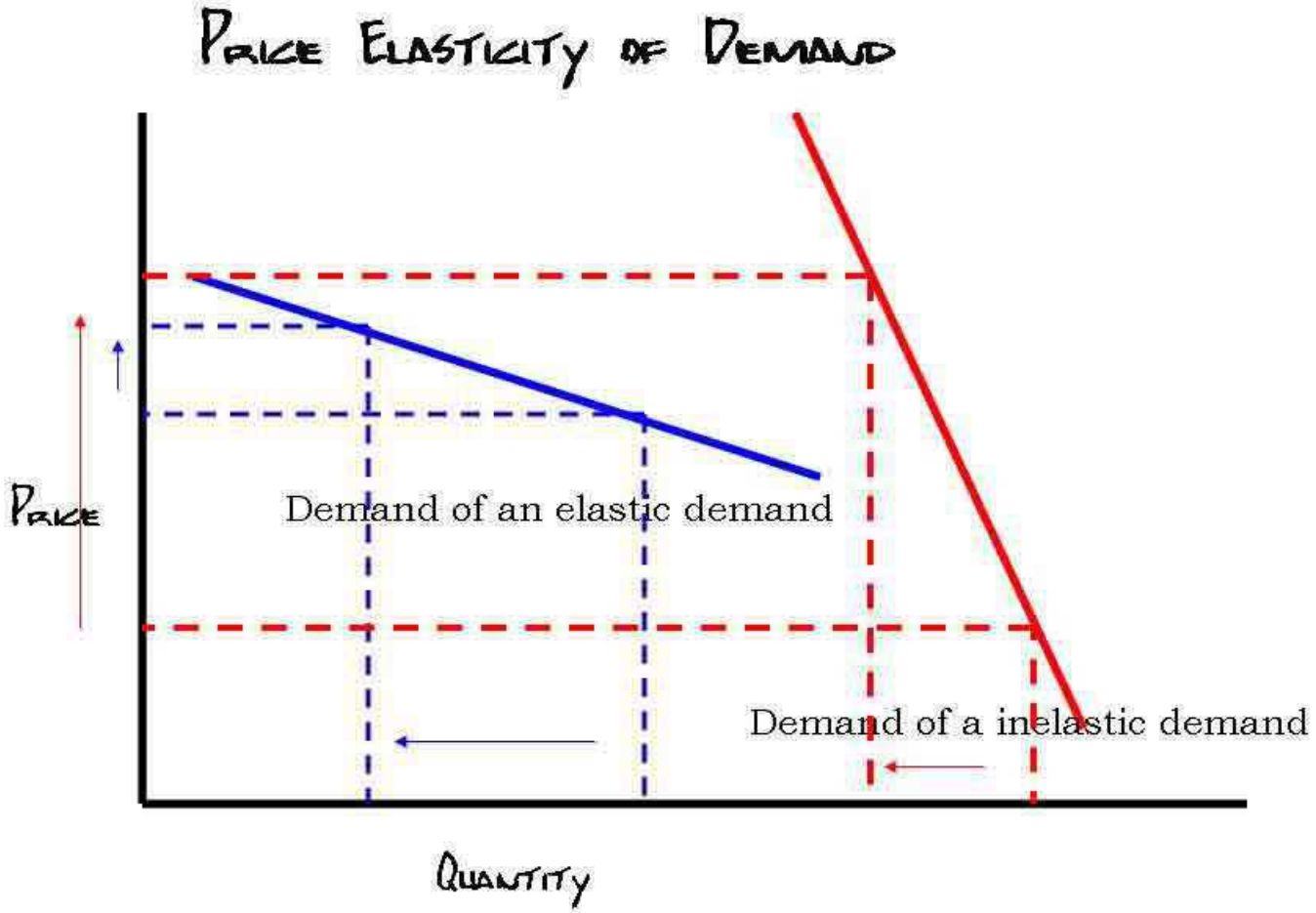
Knowledge as facts



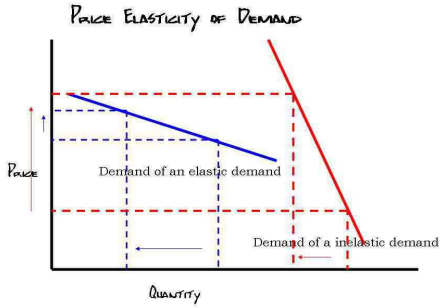
Tool: Mnemonics

Find or create a connection to something you already know. Think about this connection clearly in your mind, in words or pictures, to create a new memory. Concretize and associate!

Knowledge as comprehension



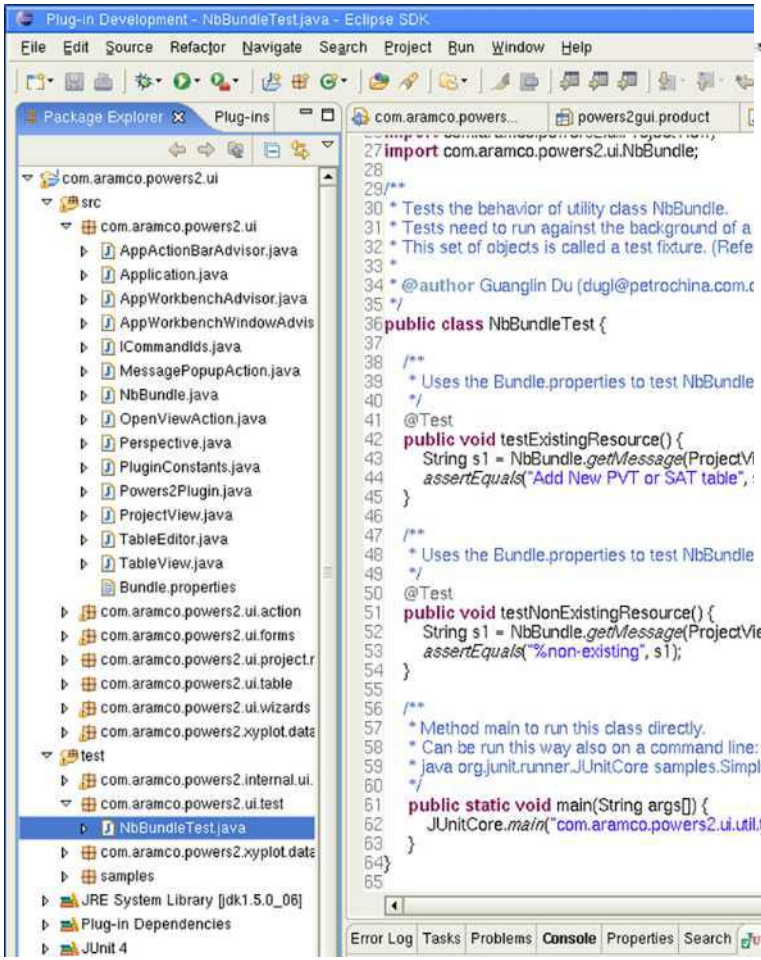
Knowledge as comprehension



Tool: Explain using own words

Read, listen and ask. Express what you feel you understand, to another person, in writing or in your mind. Abstract and exemplify.

Knowledge as skill



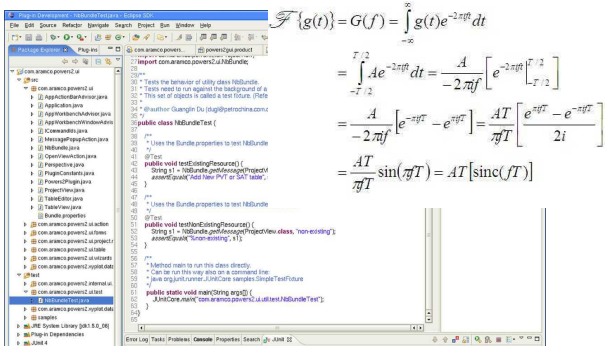
$$\mathcal{F}\{g(t)\} = G(f) = \int_{-\infty}^{\infty} g(t)e^{-2\pi ift}\,dt$$

$$= \int_{-T/2}^{T/2} Ae^{-2\pi ift}\,dt = \frac{A}{-2\pi if}\left[e^{-2\pi ift}\right]_{-T/2}^{T/2}$$

$$= \frac{A}{-2\pi if}\left[e^{-\pi ifT} - e^{\pi ifT}\right] = \frac{AT}{\pi fT}\left[\frac{e^{\pi ifT} - e^{-\pi ifT}}{2i}\right]$$

$$= \frac{AT}{\pi fT}\sin(\pi fT) = AT\left[\operatorname{sinc}(fT)\right]$$

Knowledge as skill



$$\mathcal{F}\{g(t)\} = G(f) = \int_{-\infty}^{\infty} g(t)e^{-2\pi ift}\,dt$$

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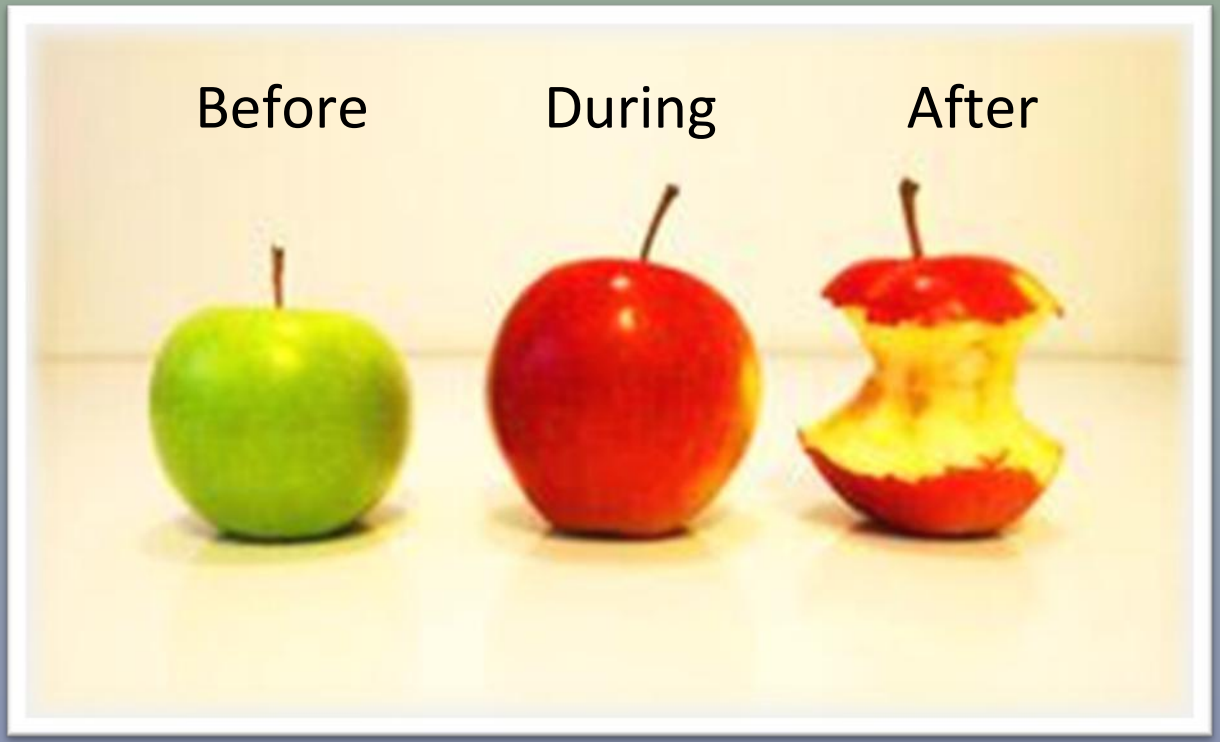
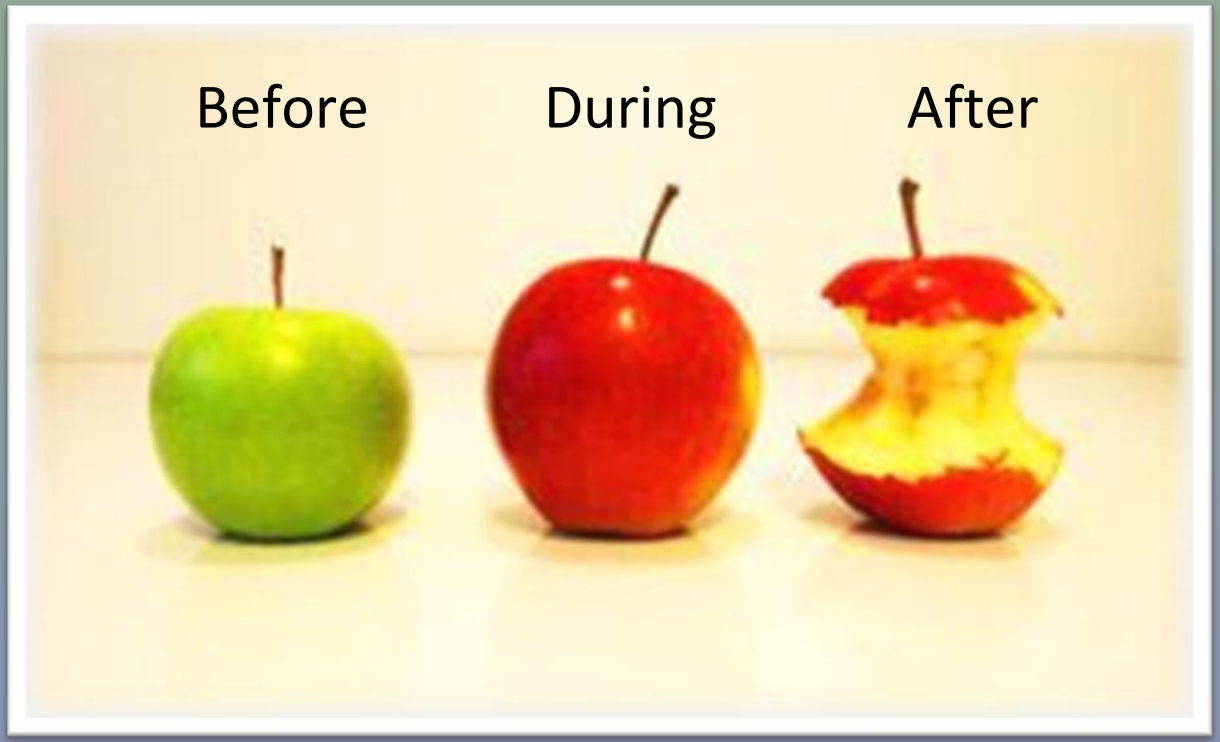
$$= \frac{A}{-2\pi if}\left[e^{-\pi ifT} - e^{\pi ifT}\right] = \frac{AT}{\pi fT}\left[\frac{e^{\pi ifT} - e^{-\pi ifT}}{2i}\right]$$

$$= \frac{AT}{\pi fT}\sin(\pi fT) = AT\left[\mathrm{sinc}(fT)\right]$$

Tools: Recreate, imitate and experiment

Look for ready-made examples in your literature and from teachers. Recreate these to learn the basics. Then do exercises with *appropriate level of difficulty* – the point where it's *possible* to solve the task with a little effort.


Before
During
After



Spaced, varied and interleaved learning, applied

PROCRASTINATION

HARD WORK OFTEN PAYS OFF AFTER TIME,
BUT LAZINESS ALWAYS PAYS OFF NOW.

Intellectual

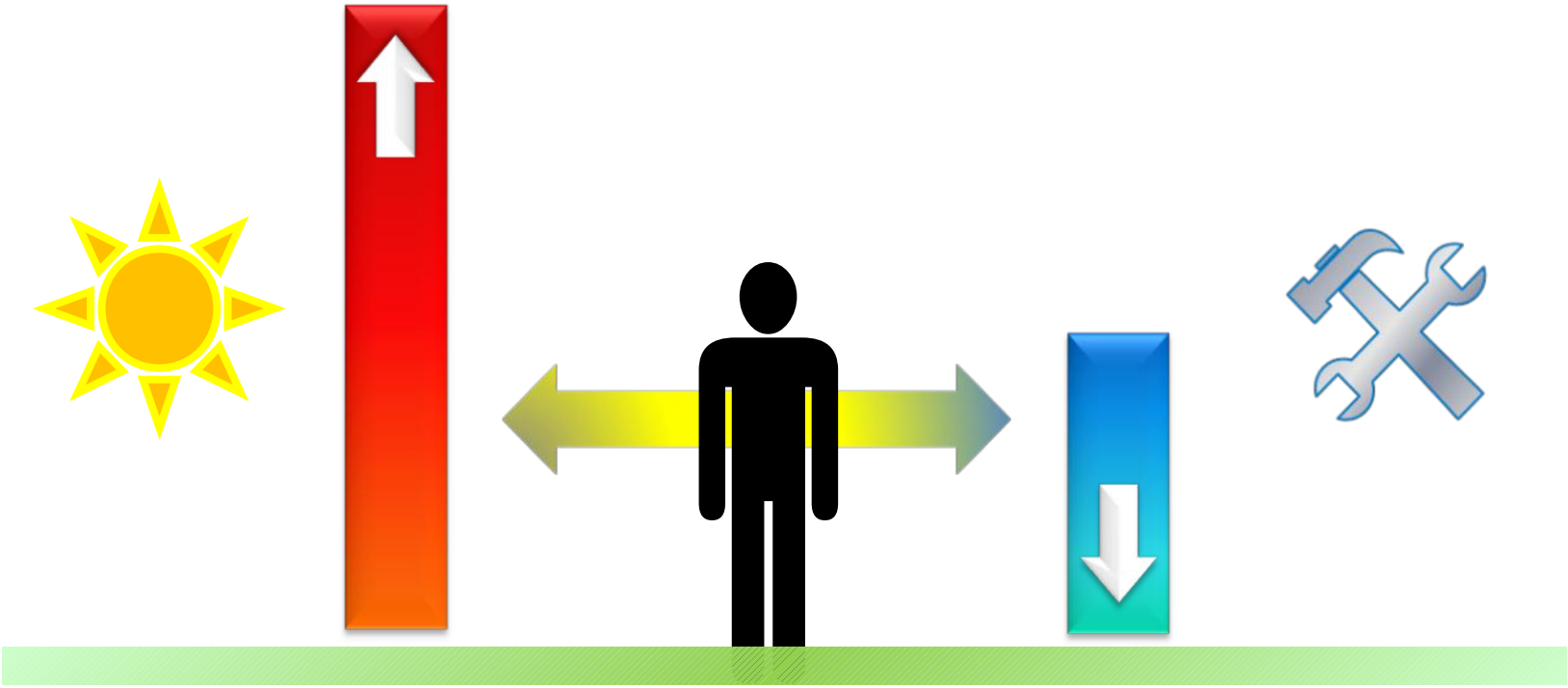
Knowledge
Plan
”What to do?”

Practical

Place
Energy
”How to do it?”

Emotional

Attitude
Motivation
”Why do it?”



Make it …

	… easy to start	… hard to procrastinate
Think	Break it down.	Focus.
Feel	Make it fun.	”Why I am doing this?” Supportive people.
Act	A place. Energy. Tools	Remove distractions.

FEB	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	X	X	X	X	=	X		X	X	X			X	X	X	X	X	
学	X	X	X	X	X	X		X	X			X	X	X	X	X	X	X
31	=	X	X	=	=			X	X		X			X	X			X
braingain	X	X	X	F	F			X	X		F	X			X	X	X	F
	=	=	X	X	X	X			X		X			X	X	X		X
	=	=	X	=	=												X	
	X	X	X	X	X	X		X	X	X		X						
	X	X	X	X	X	X			X	X	X		X	X				
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	X	X	X	X	=	X		X	X			X						
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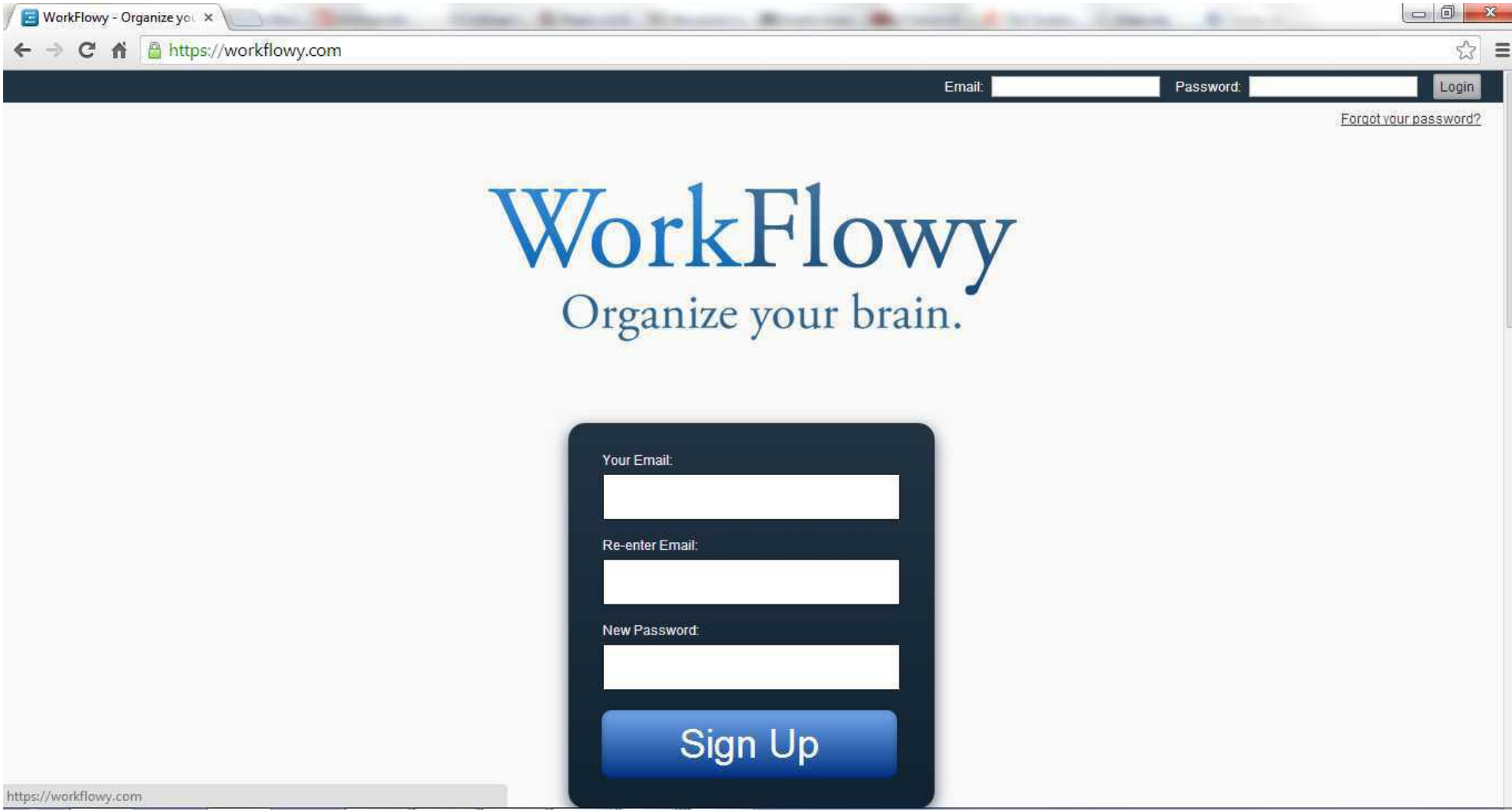
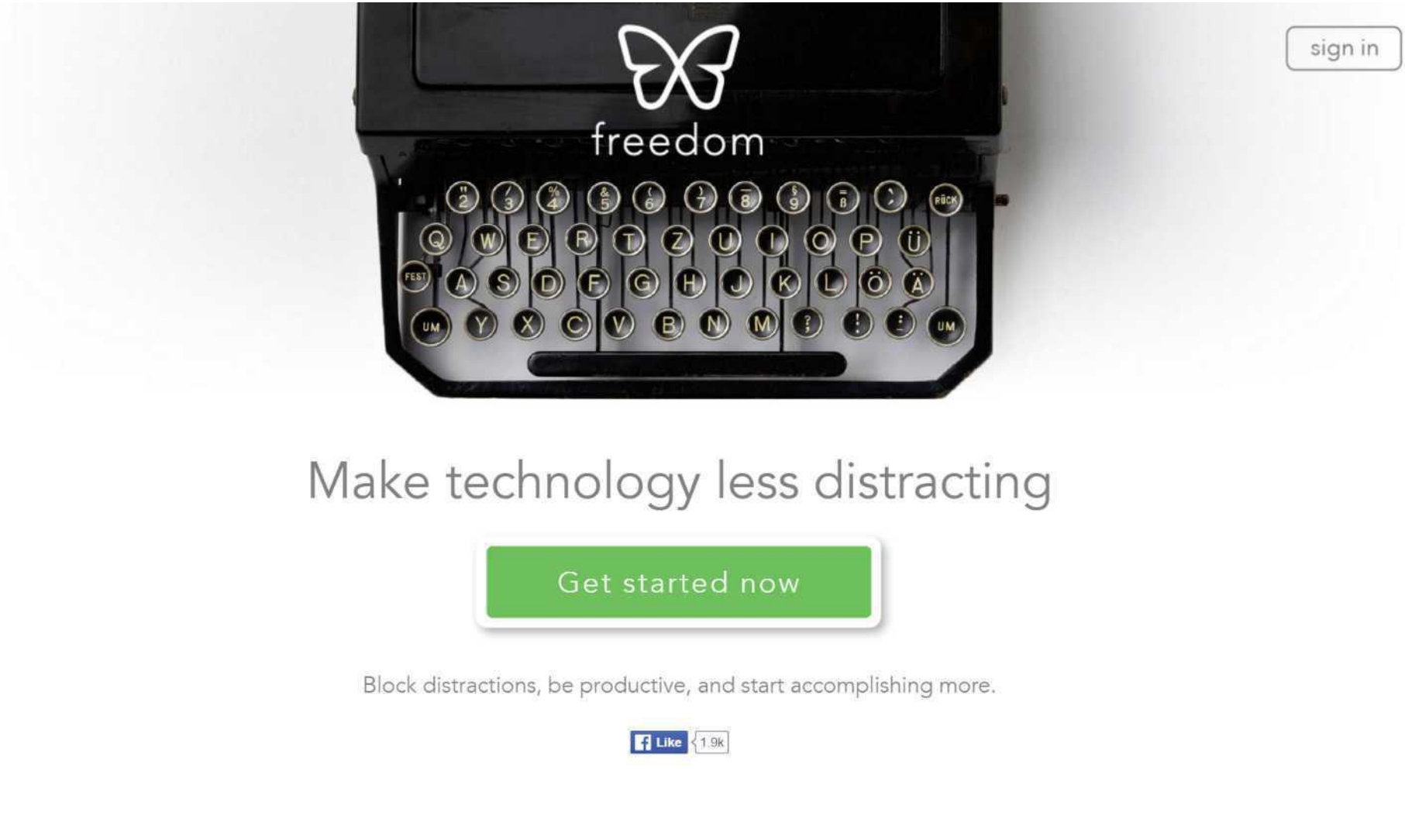
	X	X	X	X				X			X	X	X	X	X			
	X	X	X		X	X	X	X	X	X	X	X	X	X	X	M		
	X	X	X		X	X	X	X	X	X	X	X	M	M	M	M	X	

http://www.focusboosterapp.com

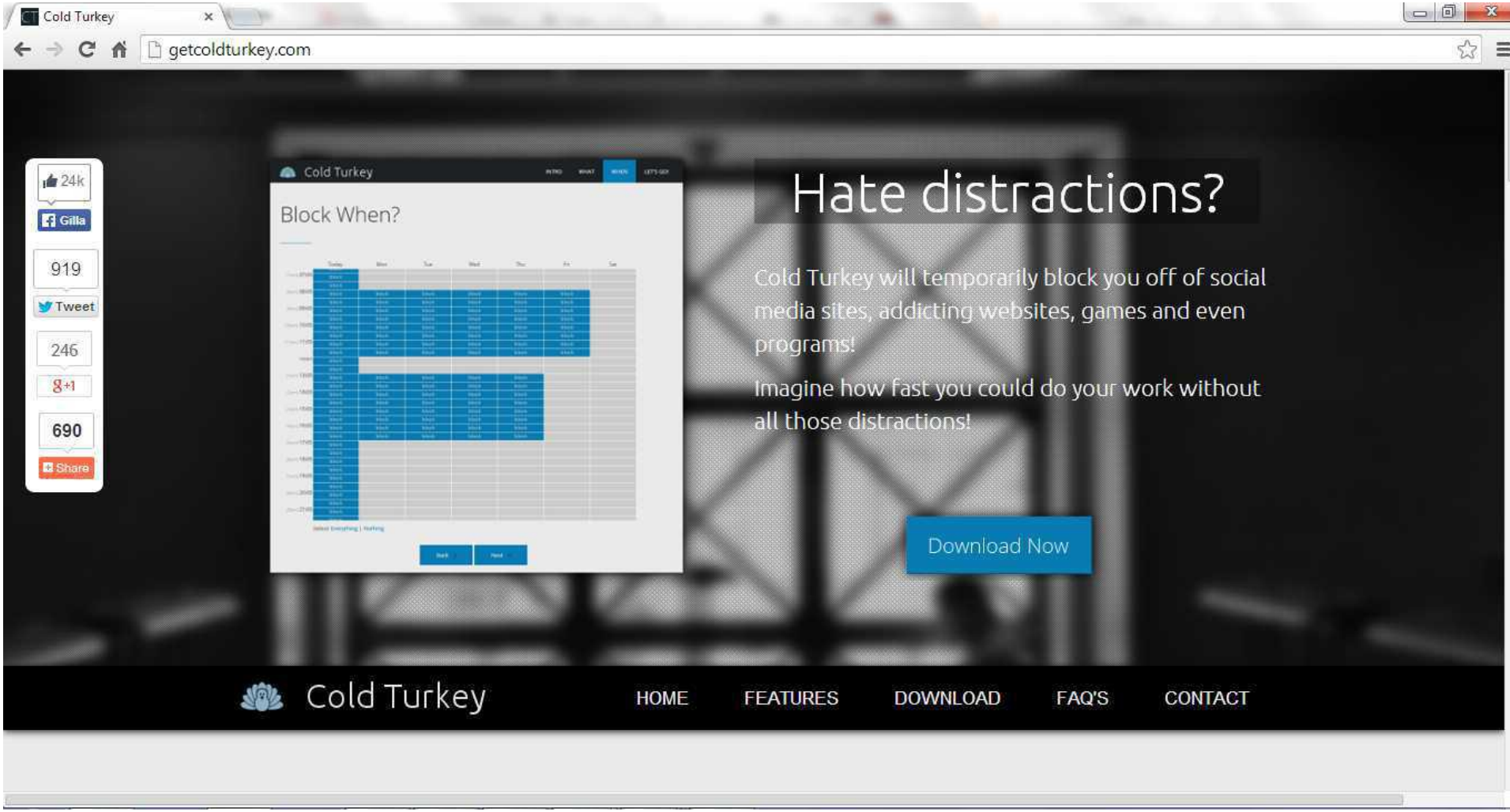
http://workflowy.com



http://freedom.to



http://getcoldturkey.com



Before

Before

Overview

- Literature
- Course plan
- Old exams
- Google, wikipedia
- Older students

Plan

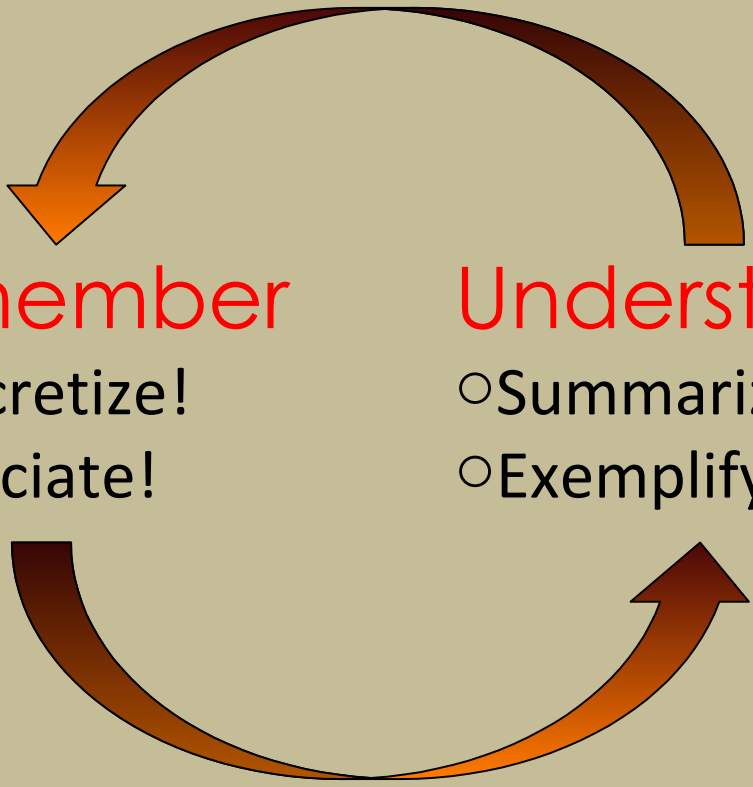
- When?
- What?
- Where?


During

During

Study sessions

Many, short and well defined



Remember

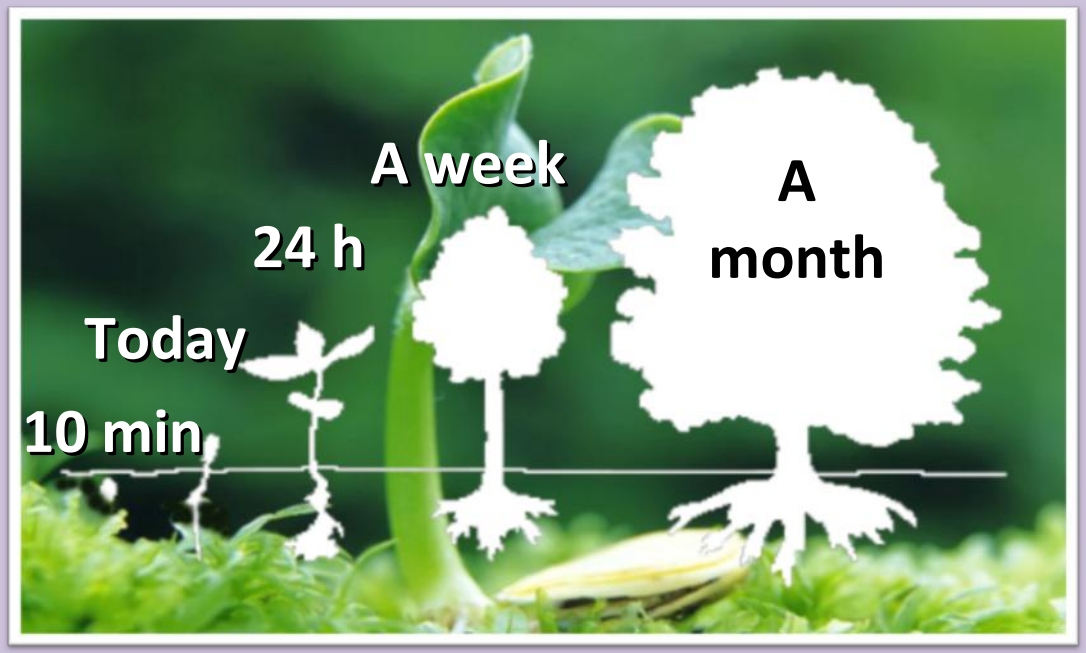
- Concretize!
- Associate!

Understand

- Summarize!
- Exemplify!

After

After



Review the Right Way

- Test yourself
- Ten minute rule
- Study journal

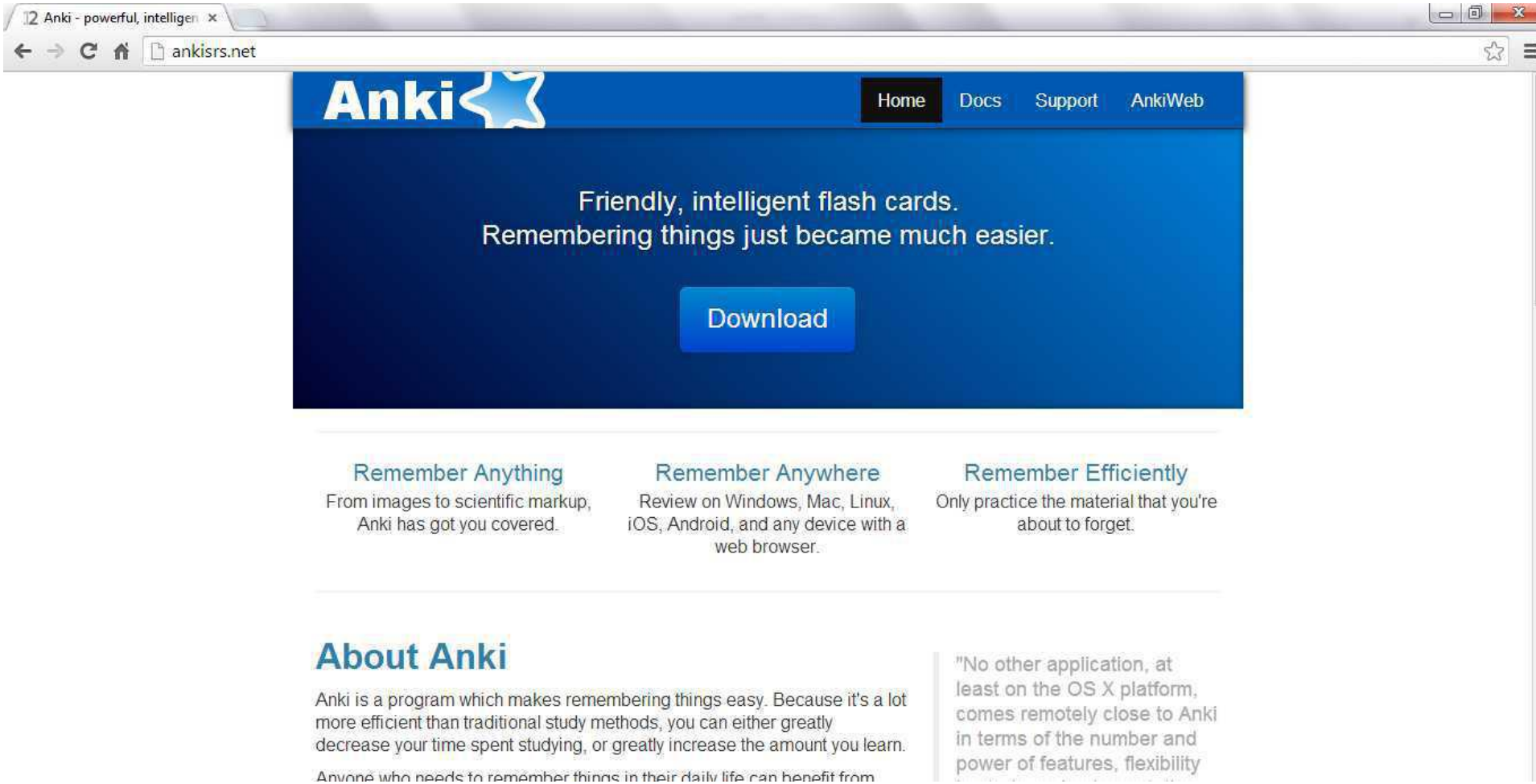
JOURNAL + THREE BOOKMARKS

Yesterday

One week ago

One month ago

1. What's the most important thing you learned today? Write it down.
2. Test yourself on the contents of each page with a bookmark.
3. Move each bookmark forward one day.


Anki - powerful, intelligen
ankisrs.net
Anki
Home
Docs
Support
AnkiWeb
Friendly, intelligent flash cards.
Remembering things just became much easier.
Download
Remember Anything
From images to scientific markup, Anki has got you covered.
Remember Anywhere
Review on Windows, Mac, Linux, iOS, Android, and any device with a web browser.
Remember Efficiently
Only practice the material that you're about to forget.
About Anki
Anki is a program which makes remembering things easy. Because it's a lot more efficient than traditional study methods, you can either greatly decrease your time spent studying, or greatly increase the amount you learn.
Anyone who needs to remember things in their daily life can benefit from
"No other application, at least on the OS X platform, comes remotely close to Anki in terms of the number and power of features, flexibility

Spaced Repetition

April 24

31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

- **Today**
- **Yesterday**
- **A week ago**
- **A month ago**

Spaced Repetition

April 25

31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

- **Today**
- **Yesterday**
- **A week ago**
- **A month ago**

Spaced Repetition

April 26

31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

- **Today**
- **Yesterday**
- **A week ago**
- **A month ago**

Spaced Repetition

April 27

31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

- **Today**
- **Yesterday**
- **A week ago**
- **A month ago**

Spaced Repetition

April 28

31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

- **Today**
- **Yesterday**
- **A week ago**
- **A month ago**

Spaced Repetition

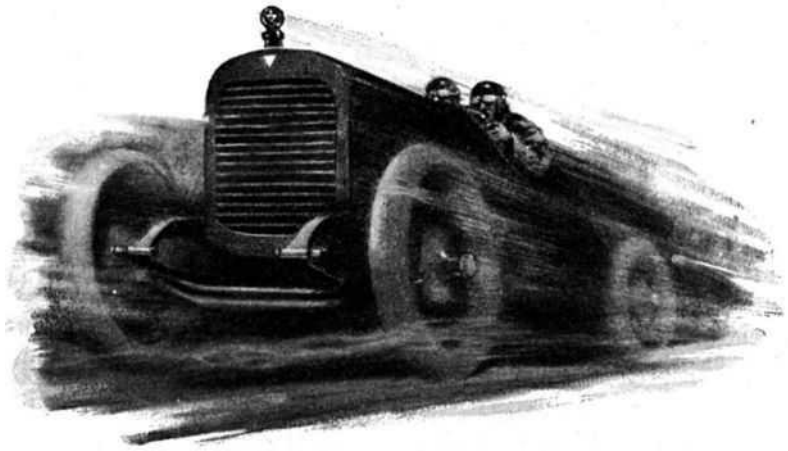
April 29

31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

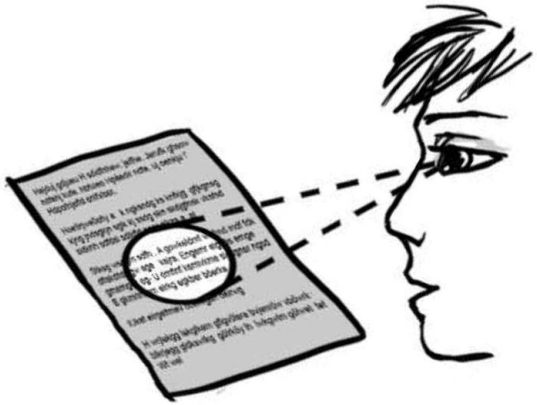
- **Today**
- **Yesterday**
- **A week ago**
- **A month ago**

Speed reading

for fun and profit



Factors to account for

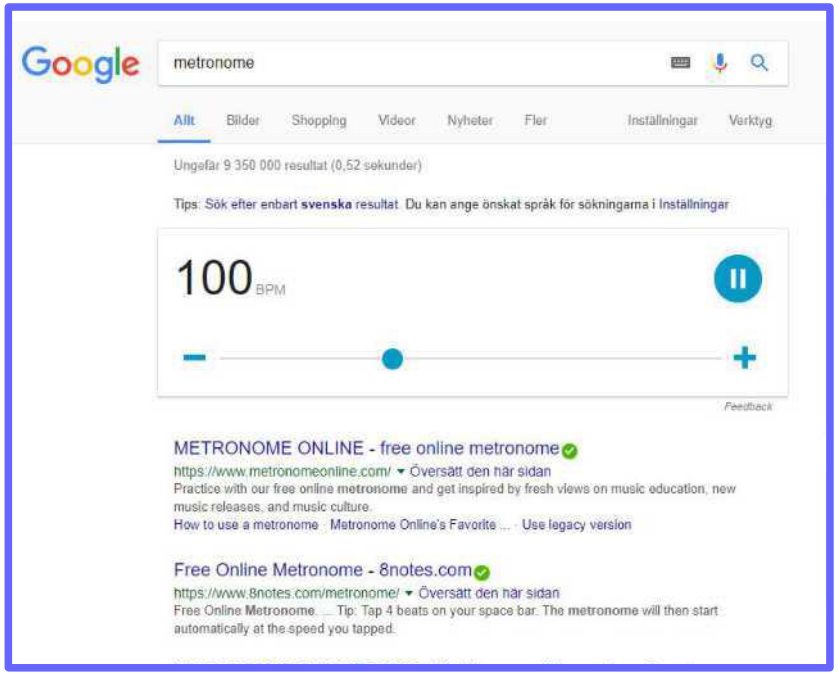


Eye coordination
Visual range
Concentration
Prior knowledge

Speed = Fixations x Range – Regressions
(Words/min = fix/min x word/fix - regr)

Guided reading

Rhythmic practice



Four levels of reading

1. Elementary reading (”the mere text”)

2. Inspectional reading (”the book as a whole”)

3. Analytical reading (”the author's mind”)

4. Syntopical reading (”the whole field”)

1. Table of contents

Terminology. Introductions.
Guess and extract.
The contour of the book.

2. Disarm the book!

Relax. Turn a page every five seconds.
No details. Observe and absorb.
The contour of the book.

3. Close reading

20:10:5. What is this text? Why read it?
Read through. Summarize and retell.
Pause and review.