Introduction to Science

Mr. Skirbst

Weekly Routine

- MON: Intro to Topic / Video
- TUE: Lesson / Notes
- WED: Notes / Activity
- THU: Laboratory
- FRI: Quiz

“XTRA” Bonus Opportunities

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1. *Answer* the “***Weekly Challenge***”

"XTRA" Bonus Opportunities

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2. *Remember* "***Scientist of the Week***"

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3. *Ask* a "***Good Question!***"

“XTRA” Bonus Opportunities

1. *Answer* the “***Weekly Challenge***”
2. *Remember* “***Scientist of the Week***”
3. *Ask* a “***Good Question!***”
4. *Read* ***Text*** / Answer ***Questions***

"XTRA" Bonus Opportunities

1. *Answer* the "***Weekly Challenge***"
2. *Remember* "***Scientist of the Week***"
3. *Ask* a "***Good Question!***"
4. *Read* ***Text*** / Answer ***Questions***
5. *Review* "***Science in the News***"

“XTRA” Bonus Opportunities

1. *Answer* the “***Weekly Challenge***”
2. *Remember* “***Scientist of the Week***”
3. *Ask* a “***Good Question!***”
4. *Read* ***Text*** / Answer ***Questions***
5. *Review* “***Science in the News***”
6. *Go* on a “***Fun Family Field Trip***”

"XTRA" Bonus Opportunities

1. *Answer* the "***Weekly Challenge***"
2. *Remember* "***Scientist of the Week***"
3. *Ask* a "***Good Question!***"
4. *Read* ***Text*** / Answer ***Questions***
5. *Review* "***Science in the News***"
6. *Go* on a "***Fun Family Field Trip***"
7. *Watch* a science ***Movie/Show***

“XTRA” Bonus Opportunities

- **MON: Minute-to-Win-It**
- **TUE: Trivia Challenge**
- **WED: Wacky Word Puzzle**
- *THU: Lab Laugh (weekly joke)*
- *FRI: Quiz Quote (weekly wisdom)*

Website Link

Please visit

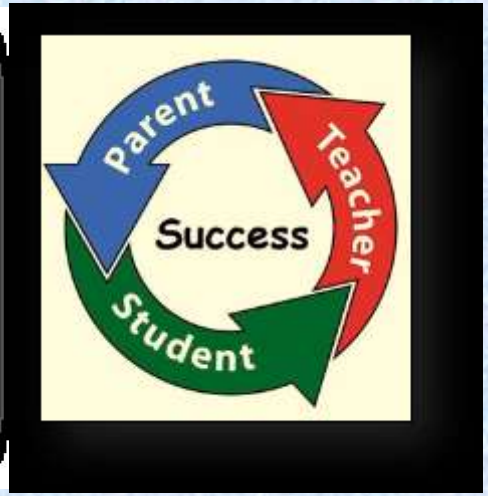
www.Skirbst.org

…every week to get caught up and stay ahead.

Use the resources there to help be a better science student and have fun!

www.Skirbst.org

(click on an image below)



Other Books

Earth & Space Science
Grade 6

Activities & Practice Quizzes

Lessons and ***Videos below***:

Topic 0: Introduction to Science

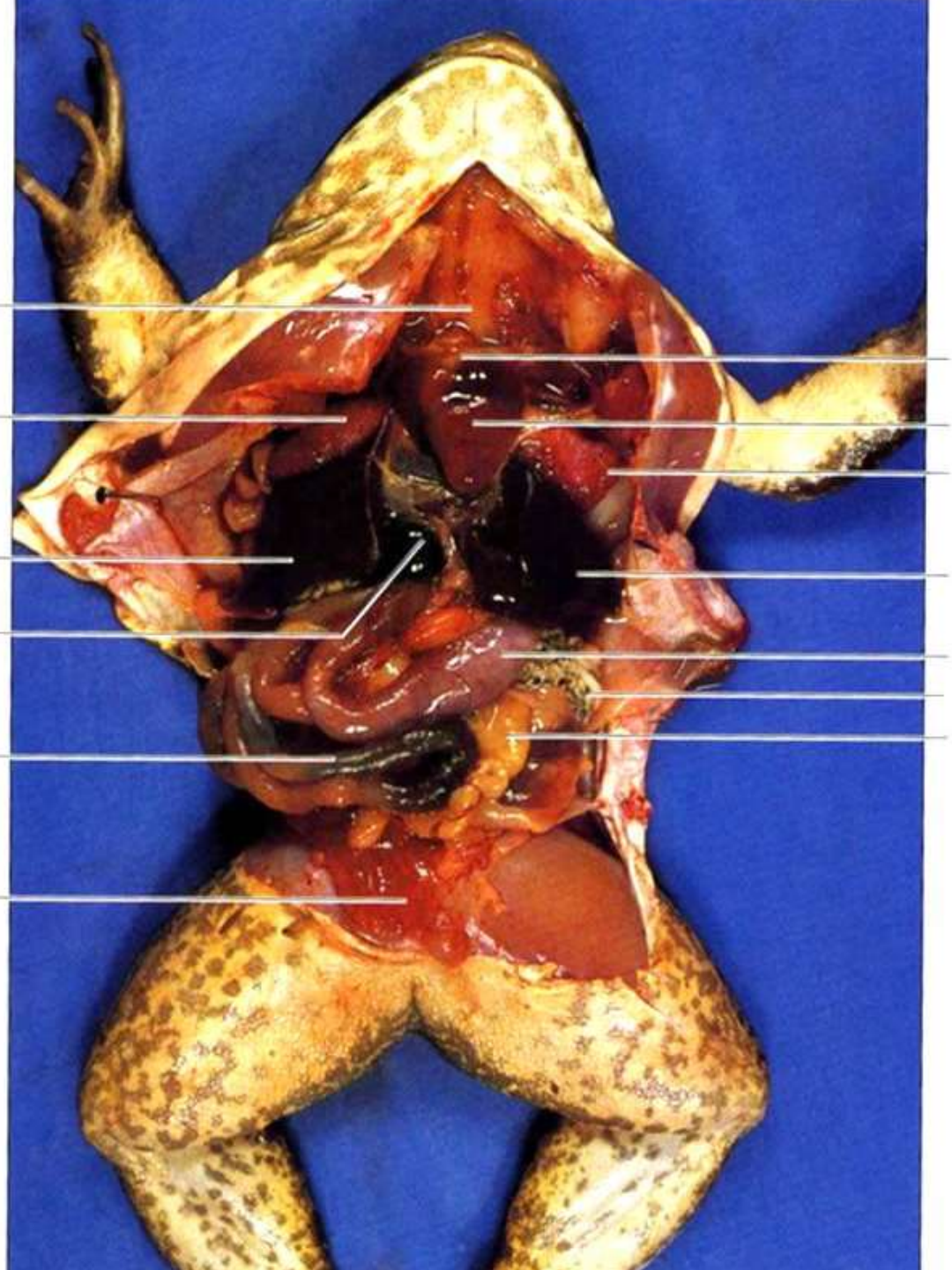
UNIT 1: Geology
Topic 1: Minerals
Topic 2: Rocks
Topic 3: Fossils
Topic 4: Geologic Time
Topic 5: Plate Tectonics
Topic 6: Geomorphology

Weekly Challenge: *If you are in a race and you pass the person in second place, what place will you be in?*

Henry M. Skirbst

October 18, 1968 - ????

Mr. Skirbst has always loved science
and helping others understand it.
He is the "***scientist of the week***" this week
for ***creating your science program*** this year.


larynx
lung
liver
gallbladder
small intestine
urinary bladder
conus arteriosus
heart
lung
liver
stomach
ovary
fat body

Scientific Terms

(dissect terms)

Prefixes

Suffixes

Scientific Terms

(dissect terms)

Prefixes ***come before root word***

Suffixes

Scientific Terms

(dissect terms)

Prefixes *come before root word*

Suffixes ***come after root word***

Scientific Terms

(dissect terms)

Prefixes *come before root word*

Suffixes *come after root word*

Ex. micro- + -meter = micrometer

Scientific Method

(systematic approach to ***problem-solving***)

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(systematic approach to problem-solving)

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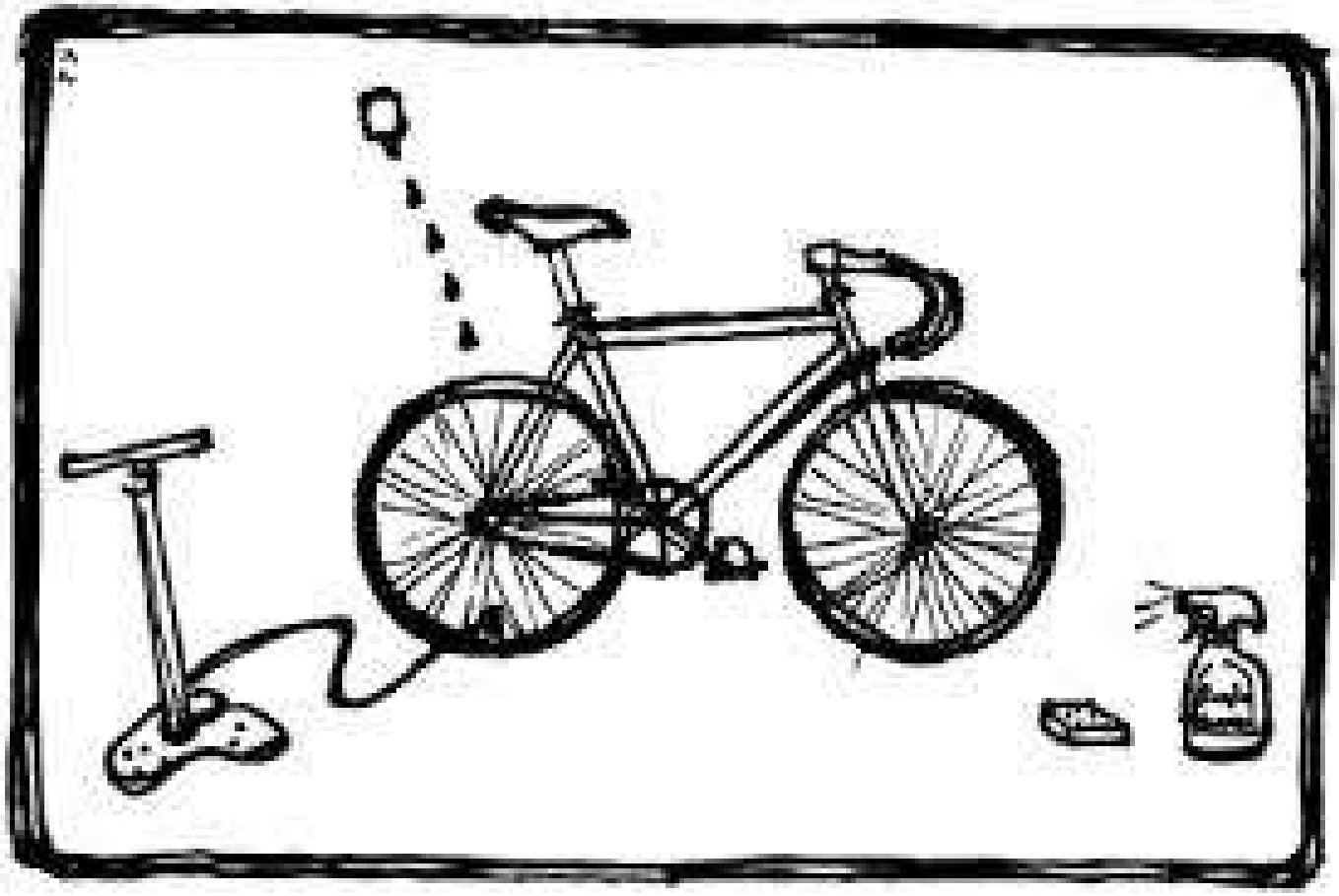


Scientific Method

(systematic approach to problem-solving)

PROBLEM What do I want to ***know***?

Scientific Method

(systematic approach to problem-solving)

PROBLEM What do I want to know?

HYPOTHESIS What do I ***think*** the answer is?

Scientific Method

(systematic approach to problem-solving)

PROBLEM What do I want to know?

HYPOTHESIS What do I think the answer is?

PROCEDURE What do ***I <u>do</u>*** to answer the problem?

Scientific Method

(systematic approach to problem-solving)

PROBLEM What do I want to know?

HYPOTHESIS What do I think the answer is?

PROCEDURE What do I do?

OBSERVATION What do I ***see, hear, smell, feel, taste***?

Scientific Method

(systematic approach to problem-solving)

PROBLEM What do I want to know?

HYPOTHESIS What do I think the answer is?

PROCEDURE What do I do?

OBSERVATION What do I ***(sense)***?

Scientific Method
(systematic approach to problem-solving)

PROBLEM What do I want to know?

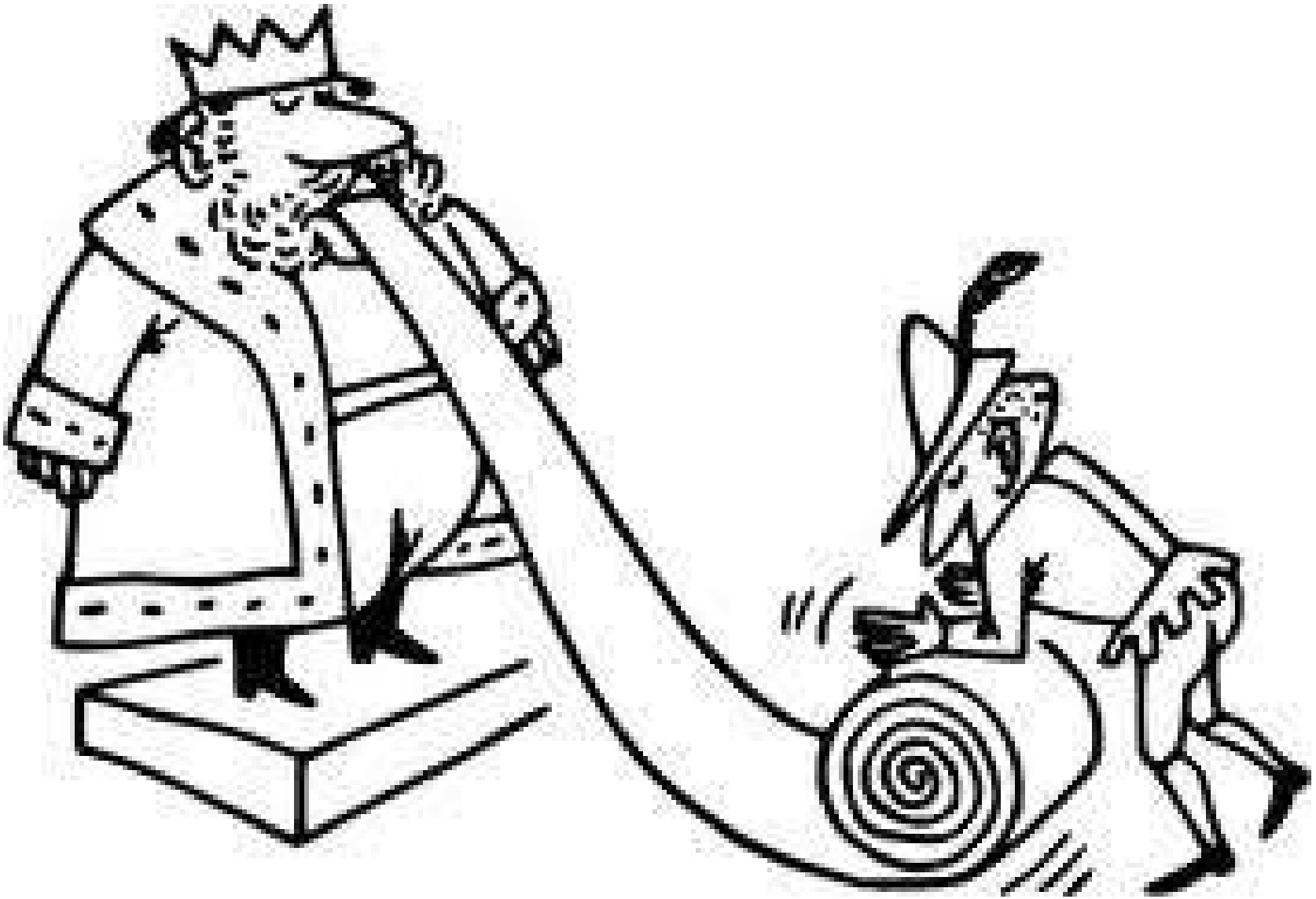
HYPOTHESIS What do I think the answer is?

PROCEDURE What do I do?

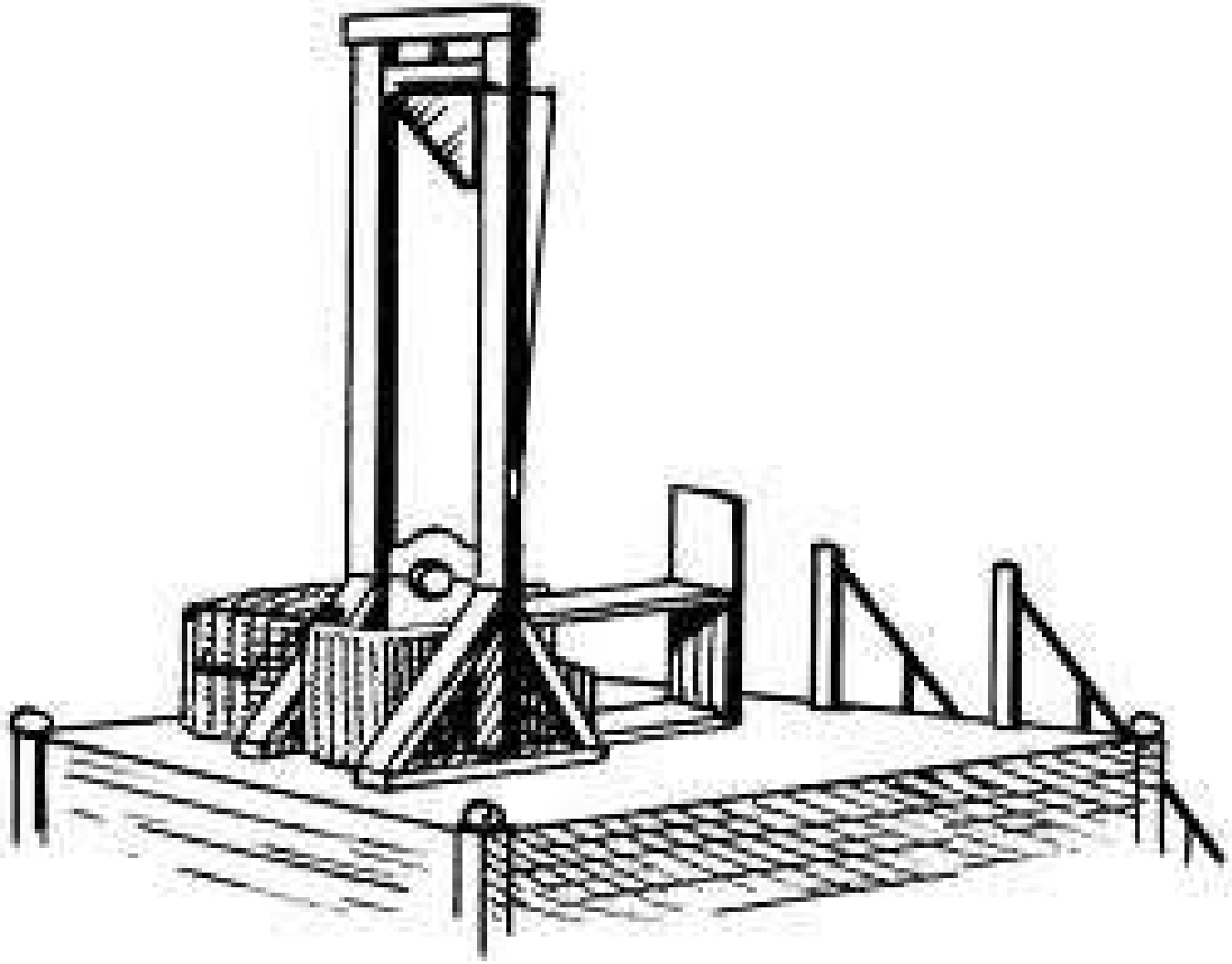
OBSERVATION What do I see, hear, smell, feel, taste?

CONCLUSION Based on ***observations***, what is the answer to the ***PROBLEM***?

Scientific Measurement



Scientific Measurement



Scientific Measurement

Basic Units in the **METRIC SYSTEM**

length –

volume –

mass –

temperature –

Scientific Measurement

Basic Units in the **METRIC SYSTEM**

length – ***meter (m)***

volume –

mass –

temperature –

Scientific Measurement

Basic Units in the **METRIC SYSTEM**

length – meter (m)

volume – ***liter (l)***

mass –

temperature –

Scientific Measurement

Basic Units in the **METRIC SYSTEM**

length – meter (m)

volume – liter (l)

mass – ***gram (g)***

temperature –

Scientific Measurement

Basic Units in the **METRIC SYSTEM**

length – meter (m)

volume – liter (l)

mass – gram (g)

temperature – ***degrees Celsius (^{o}C)***

Scientific Tools

Scientific Tools

length –

volume –

mass –

temperature –

Scientific Tools

length – ***ruler (ex. meter stick)***

volume –

mass –

temperature –

Scientific Tools

length – ruler (ex. meter stick)

volume – ***graduate***

mass –

temperature –

Scientific Tools

length – ruler (ex. meter stick)

volume – graduate

mass – ***balance***

temperature –

Scientific Tools

length – ruler (ex. meter stick)

volume – graduate

mass – balance

temperature – ***thermometer***

Metric Prefixes

(added in front of basic unit: meter, liter, and gram)

milli-	deca-
centi-	hecto-
deci-	kilo-

Metric Prefixes

(added in front of basic unit: meter, liter, and gram)

milli- ***.001***

centi-

deci-

deca-

hecto-

kilo-

Metric Prefixes

(added in front of basic unit: meter, liter, and gram)

milli- .001

centi- ***.01***

deci-

deca-

hecto-

kilo-

Metric Prefixes

(added in front of basic unit: meter, liter, and gram)

milli- .001

centi- .01

deci- ***.1***

deca-

hecto-

kilo-

Metric Prefixes

(added in front of basic unit: meter, liter, and gram)

milli- .001

centi- .01

deci- .1

deca- ***10***

hecto- ***100***

kilo- ***1000***

Metric Prefixes

(added in front of basic unit: meter, liter, and gram)

milli- .001

centi- .01

deci- .1

deca- 10

hecto- 100

kilo- 1000

(Ex. kilometer = 1,000 meters)

Memory Aid

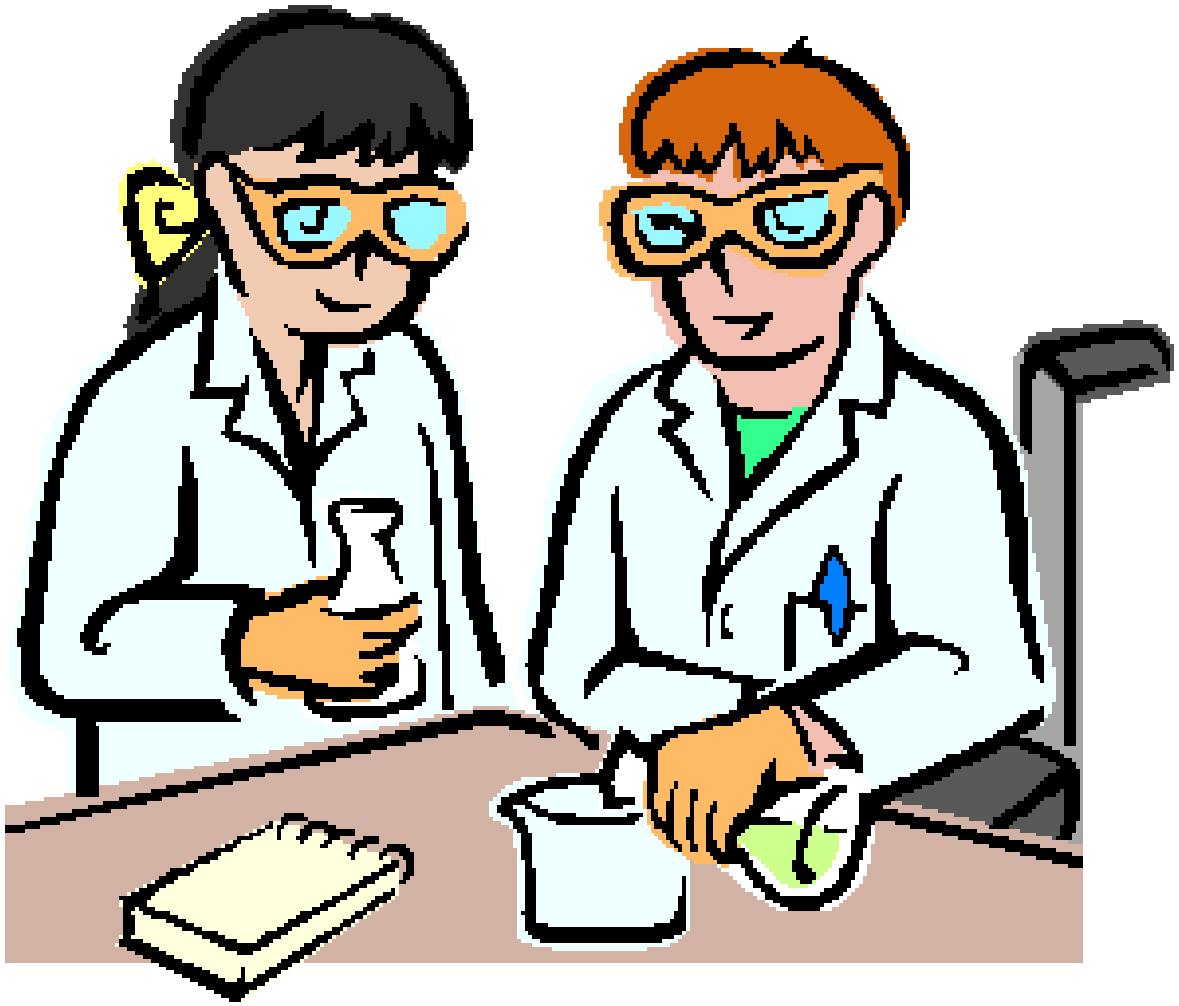
King Henry Died Unexpectedly Drinking Chocolate Milk

Kilo	Hecto	Deka	Unit	Deci	Centi	Milli
1,000	100	10	Meter Liter Gram 1	.1	.01	.001

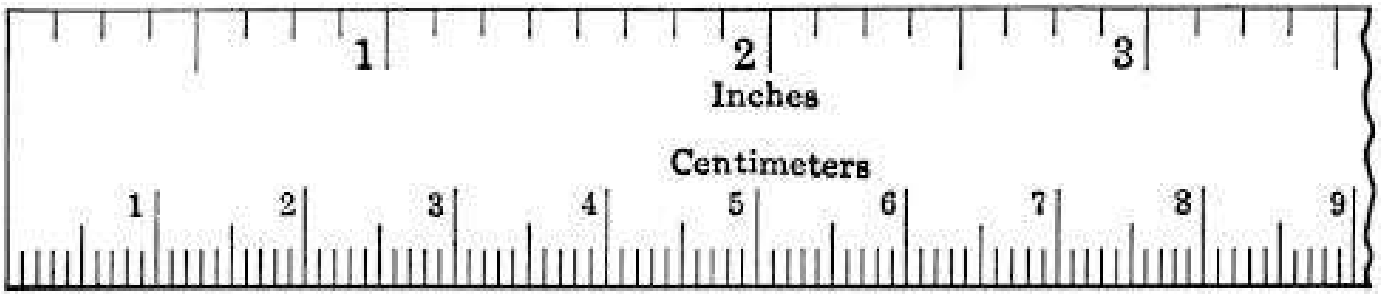
largest to smallest = multiply

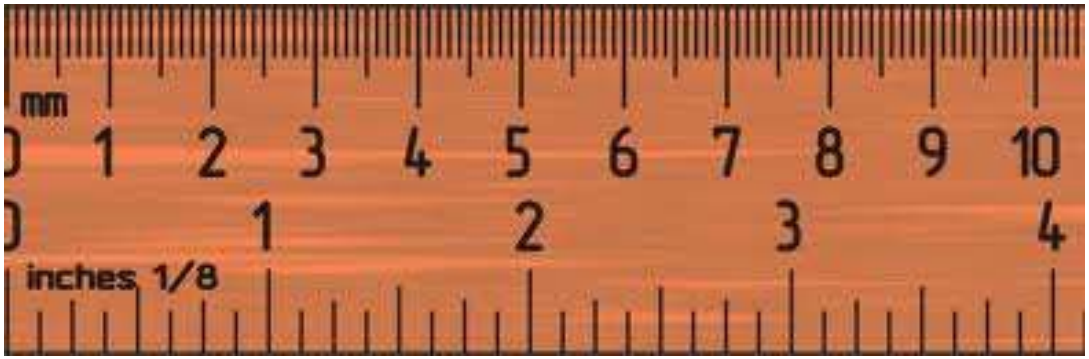
smallest to largest = divide

Lab Measurements

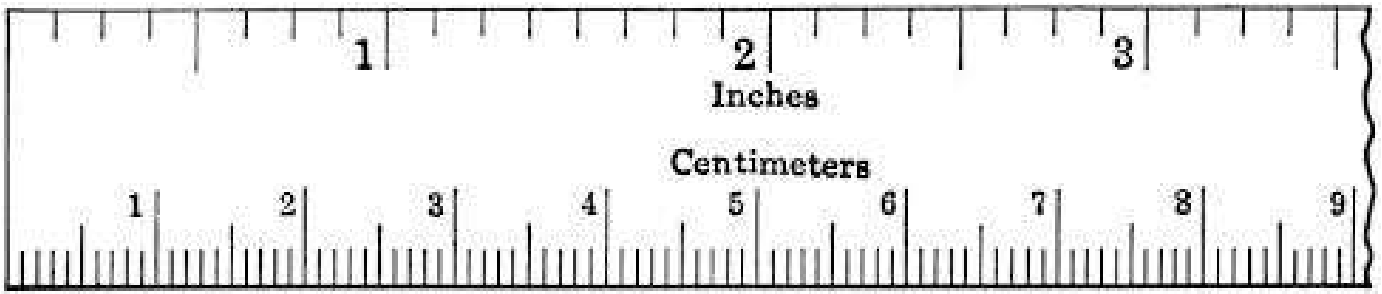


Length

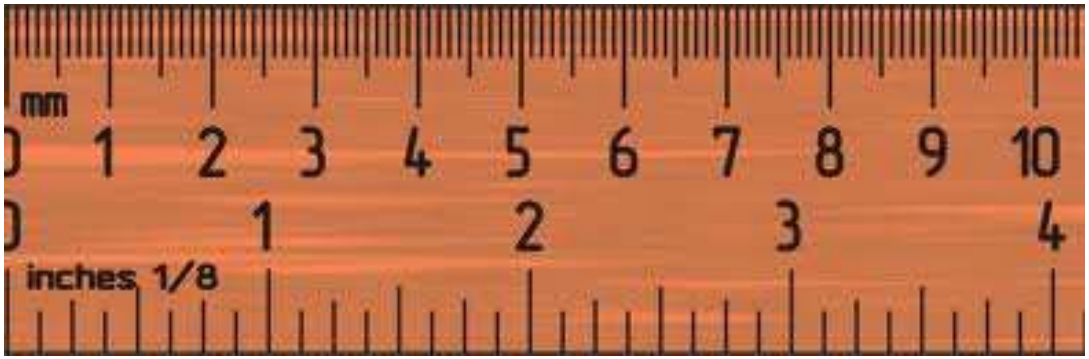

1
2
3
Inches
Centimeters
1
2
3
4
5
6
7
8
9


mm
0
1
2
3
4
5
6
7
8
9
10
0
1
2
3
4
inches 1/8

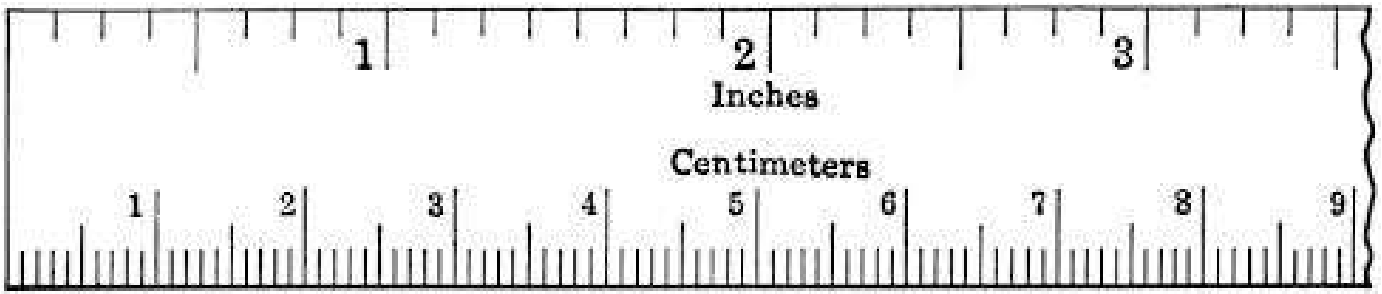
Length



- Metric System Only

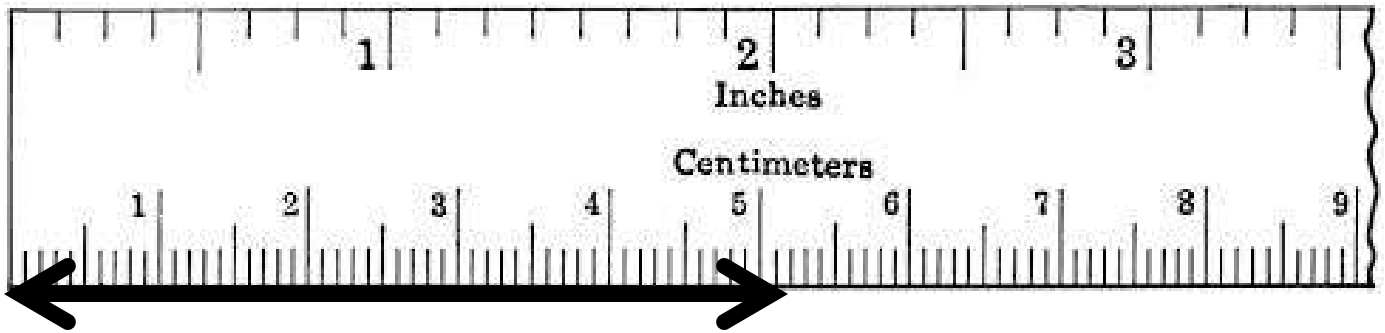


Length



Draw a line 5.2 cm long.

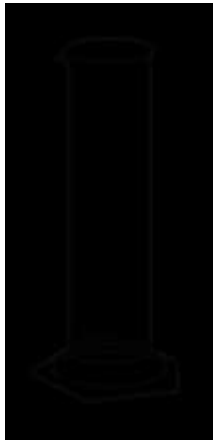
Length



Draw a line 5.2 cm long.

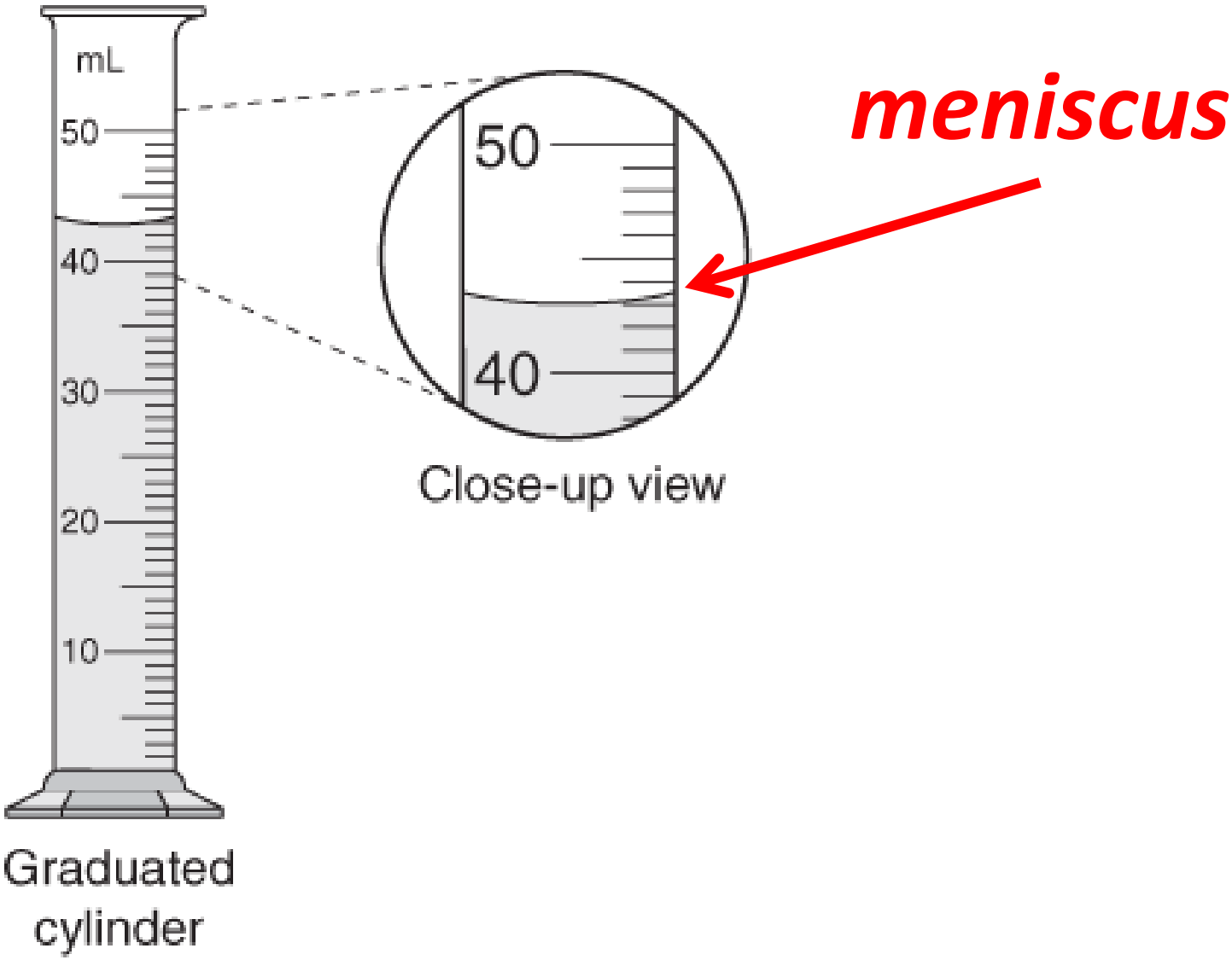
Volume

Liquids ml

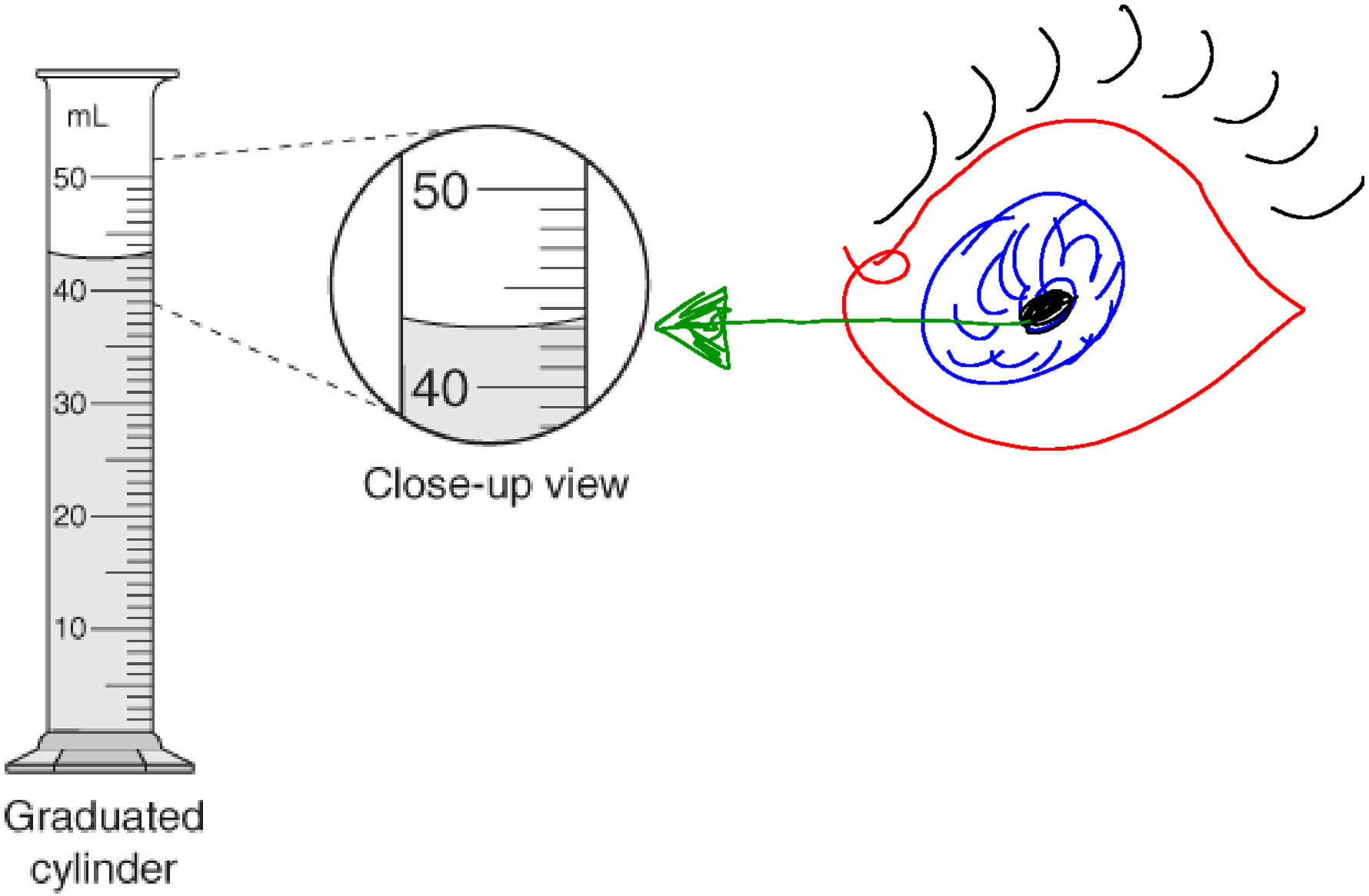


Solids cm^3

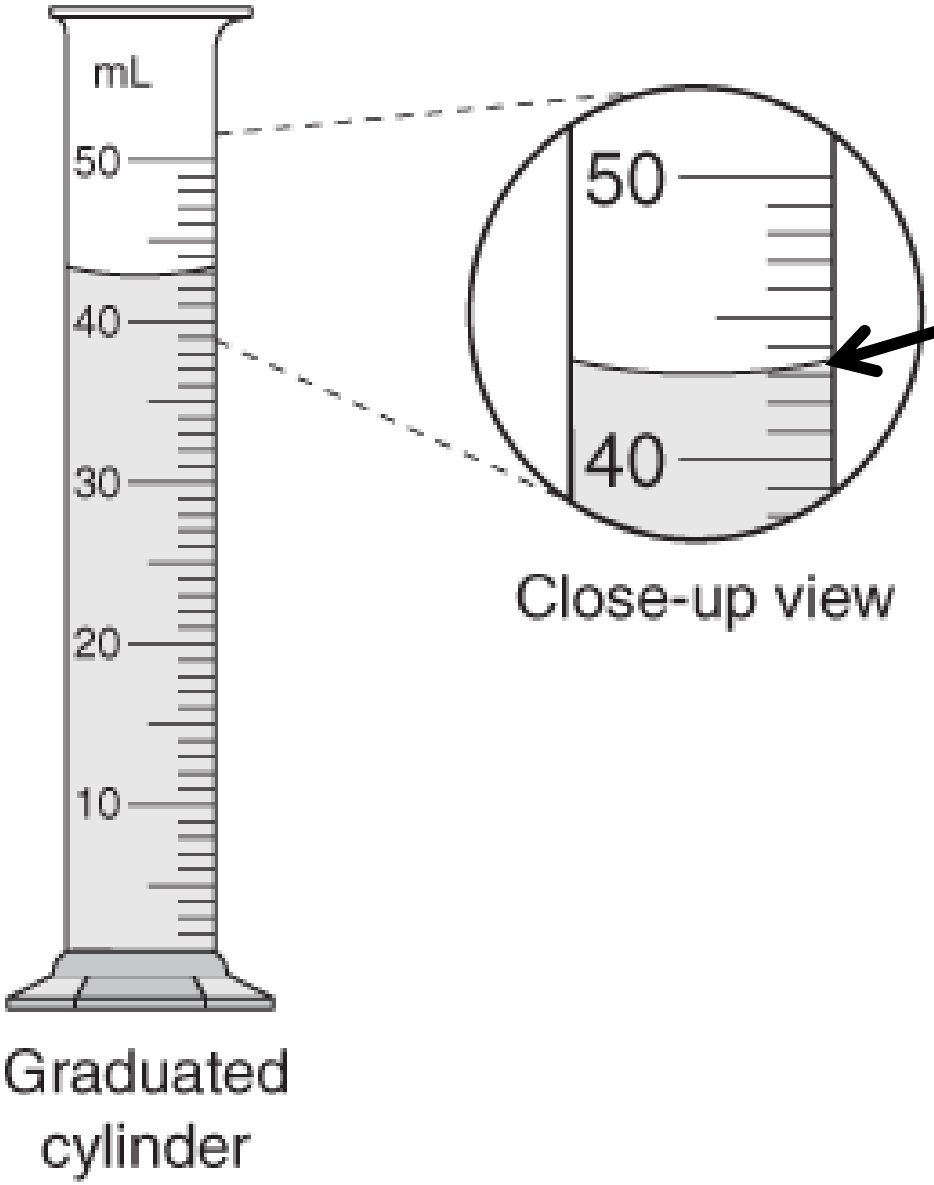
Volume


mL
50
40
30
20
10
50
40
Close-up view
meniscus
Graduated cylinder

Volume



Volume



Displacement method

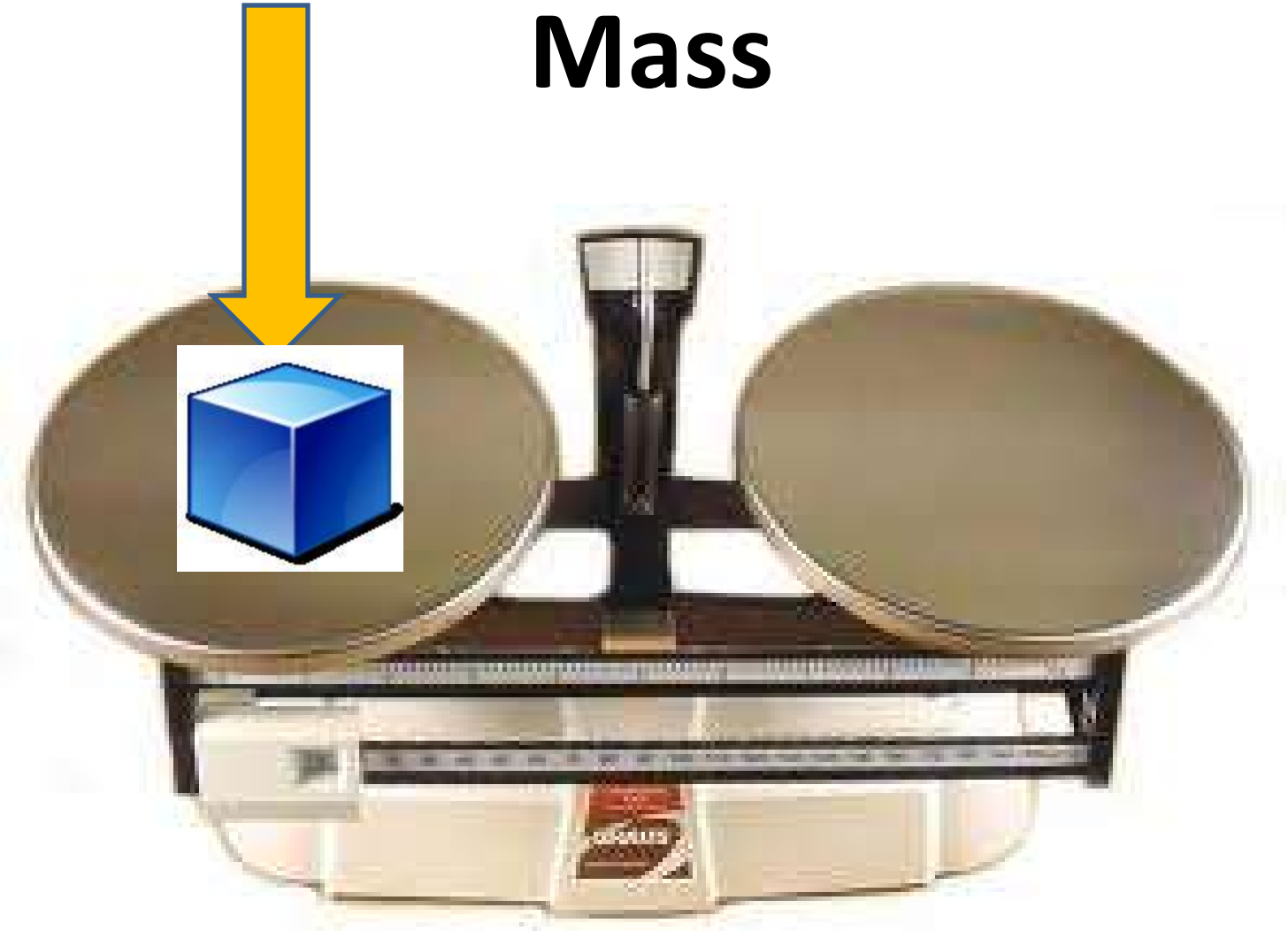
Mass

Balance measures mass, scales measure weight

Mass

Mass

Mass



Mass

Balance measures ***mass***
(**scale** measures ***weight***)

SCALES measure WEIGHT, NOT MASS

Temperature

Temperature

Read like a ruler - in degrees Celsius

Lab Measurements

Significant Digits

Lab Measurements

Significant Digits

Refer to appendix in back of book…

Lab Safety

PLEASE, NO food or drink in the LAB!

Sugar and acid video 1

Sugar and acid video 2

Acid and other things