

6th Grade Science Systems' Functions and Interactions

Notebook
First Quarter

Conversion Table

Capacity

1 fl oz = 29.574 ml	1 ml = 0.034 fl oz
1 pt = 473 L	1 L = 2.113 pt
1 qt = 946 L	1 L = 1.057 qt
1 gal = 3.785 L	1 L = .264 gal

Length and Distance

1 in = 2.54 cm	1 cm = 0.39 in
1 ft = 30.48 cm	1 cm = 2.94 in
1 yd = 914 m	1 m = 1.094 yd
1 mi = 1.609 km	1 km = .621 mi

Weight

1 oz = 28.350 g	1 g = 0.035 oz
1 lb = 454 kg	1 kg = 2.205 lb
1 ton = 2,000 lb	1 ton = .907 metric tons
1 metric ton = 1,102 tons	

Last name, First

6th Grade Science
Systems' Functions
and Interactions

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Science!

DoNOW: Please take out your notebook and begin numbering pages from 1 to 140.

We will be setting up the notebook and then start to look at lab safety.

2

3

140

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Next:

1. On page 2 we will glue in a Table of Contents page (we will use 4)

2. On page 140, we will glue in a Notebook Check Grades page.

3. On page 1, we will copy the title: 6th Grade Science: Systems' Functions and Interactions and other stuff

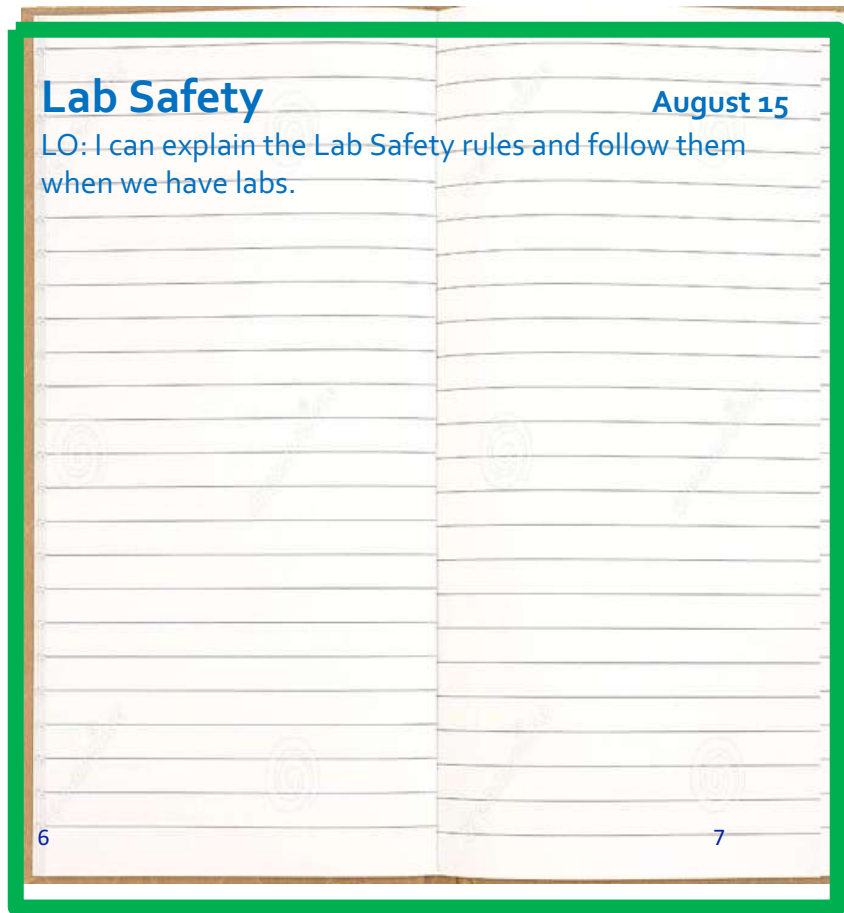
2

3

140

Introducing Lab Safety:

1. Now ***turn to*** page 6/7 and ***copy*** the title, **Lab Safety** , date, **08/15**, and learning objective, *I can explain the Lab Safety rules and follow them when we have labs.*
2. In the following slides, where the font is in blue, ***copy*** the phrase.
3. Between slides, whisper to



your partner about what you see in green. Can you think of other examples?

Remember we wrote on page 8, leaving a line blank between words. Below is the list:

Basic Vocabulary	Group Roles
August 17	
CER	Gatekeeper/Facilitating
C-notes	Recorder/Clarifying
Collaboration	Builder/Compromising
Communication	Time
Control variable(s)	keeper/Encouraging
Dependent variable	Materials
Evidence	Manager/Harmonizing
Hypothesis	Quality
Independent variable	Control/Measuring
Phenomena	Presenter/Consensus
Safety	Tester
	Researcher/Summarizin
8	g
9	

- CER
- C-notes
- Collaboration
- Communication
- Control variable(s)
- Dependent variable
- Evidence
- Hypothesis
- Independent variable
- Phenomena
- Safety

We started to find definitions using Google Search and the glossary in your online textbook, starting at page 612. .

Now, on page 9 *copy* the title, **Group Roles**. Please leave a line blank between words. Below is the list:

Basic Vocabulary	Group Roles
August 17	Gatekeeper/Facilitating
CER	Recorder/Clarifying
C-notes	Builder/Compromising
Collaboration	Time keeper/Encouraging
Communication	Materials Manager/ Harmonizing
Control variable(s)	Quality Control/Measuring
Dependent variable	Presenter/Consensus Tester
Evidence	Researcher/Summarizing
Hypothesis	
Independent variable	
Phenomena	Role/Behavior
Safety	The ideal set of roles depends on the task and the number of team members you have. You have to keep the group STRONG as well as getting the task done , or the task will NOT get done. Always begin a meeting with a review of the norms.
8	9

- Gatekeeper/Facilitating
- Recorder/Clarifying
- Builder/Compromising
- Time keeper/Encouraging
- Materials Manager/Harmonizing
- Quality Control/Measuring
- Presenter/Consensus Tester
- Researcher/Summarizing

Role/Behavior

The ideal set of roles depends on the task and the number of team members you have. You have to keep the **group STRONG** as well as getting the **task done**, or the task will NOT get done. Always begin a meeting with a review of the norms.

Notes on C-E-R

CER

I can explain writing claims, evidence and reasoning

Claim:

- is what you know
- is what you are prepared to support with evidence
- is can be a prediction what you think will happen, based on what you already know.
- can't be a yes or no statement.

Sentence Starters

- If _____ then _____
- The _____ is _____
- The _____ will _____
- Although _____, _____

Evidence:

- is how you know
- is the proof and data that supports your claim,
- may come up that disproves your claim

10

August 19

Types of Evidence

- numbers in a table
- data in a graph
- observations
- notes, quotes from research

Sentence Starters

- In the text it says _____
- According to our data, _____
- On the graph it shows _____

Reasoning:

is why you know

is what you think about your claim after you did the experiment or research. sharing why your claim is right, or wrong from evidence.

explaining the science behind the claim. May be part of an evidence sentence or written separately

Sentence Starters and Fragments

- _____ supports my claim because _____ (fragment)
- The data from _____ tells me that _____
- One evidence to support my claim is _____ which means _____

11

These notes begin on page 10, with a title of **CER**, a date of **August 19**, and subtitles of Claim, Evidence, and Reasoning.

The LO is **I can explain writing claims, evidence and reasoning.**

For each subtitle, there is a slide to copy.

Balloon Observations *and* First C-E-R Paragraph

Balloon Observations		1 st CER	August
#	Observations – Liquid	LO: I can write a CER from ... observations.	Observations
1			
2			
3			
4			
5			
6		CER:	
7			
8			
9			
10			
12			
13			

The observations were to help you identify the liquids in the balloons. You were to report any accidents immediately!

LO: I can identify liquids from observations.

The observations from the video were to help you write a claim that you could support with evidence and reasoning. Remember that some might interpret the evidence differently!

LO: I can write a CER from observations.

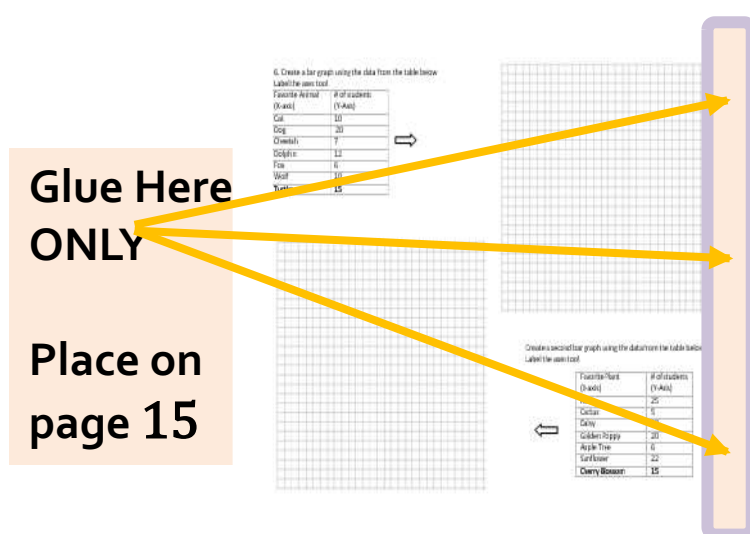
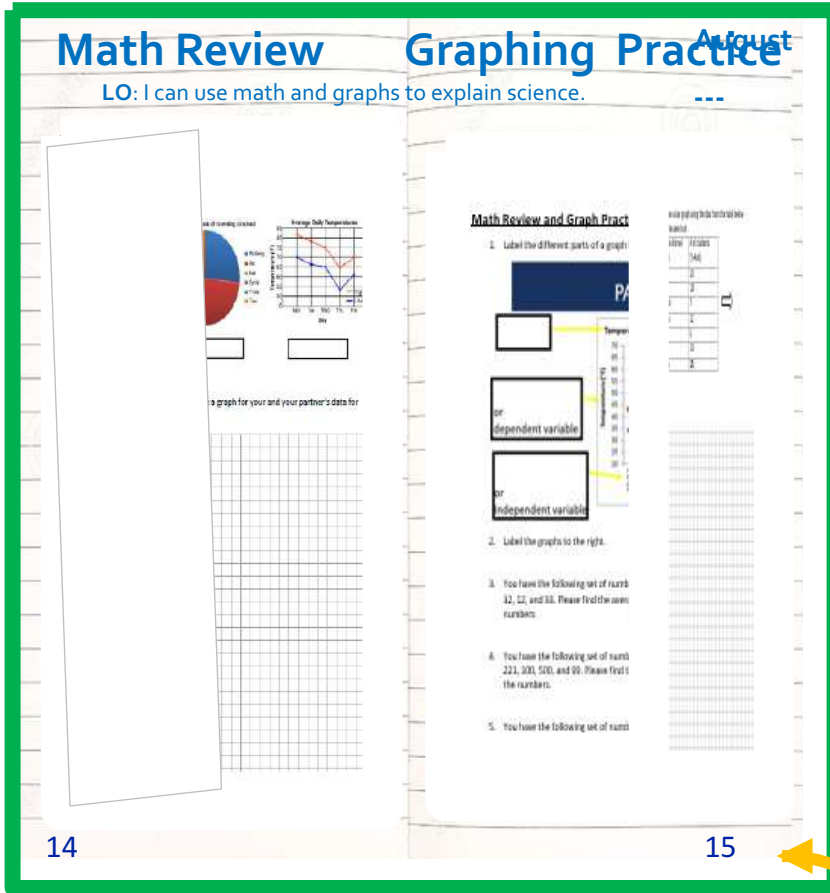
Are these two pages finished?

Intro to . . . Graphing . . . Practice

These pages are meant to give you enough graphing background to use graphs in analyzing results.

LO: I can use math and graphs to explain science.

Observations usually lead to measurements that have to be analyzed. Why is measurements important in science?



Remember: When you glue-in, the pages must fold out.

Reading Comprehension and c-Notes

Reading Comprehension c-Notes August 30

LO: I can comprehend scientific and high level readings.

EQ: What are the properties of water?

Adhesion and Cohesion of Water

I used to walk up in a cold sweat in the middle of the night because I could not get the concepts of water, adhesion and cohesion clear in my mind. If you have that problem, too, then do yourself a favor and read on to learn about these important properties of water.

Cohesion

- Cohesion: Water is attracted to water.

Adhesion

- Adhesion: Water is attracted to other substances.

USGS

Adhesion and cohesion are water properties that affect every water molecule on earth and also the interaction of water molecules with molecules of other substances.

Water molecules pull towards other molecules including H₂O, allowing them to stick together and on other surfaces.

16
17

- Leave space here for the Essential Question.
 - Put the topic or title here.
 - Copy your highlights (important info) here as jot dots.
 - Underneath list key science and academic vocabulary *and* their meanings.
 - Add a diagram to help visualize
 - Now summarize what you learned and go back to the top and write the essential question.
- The notes shown on this slide are the teacher's. Your thought should be similar, but personal to you.

Penny Lab and C-E-R

We will do this lab in partners.

LO: I can follow safety procedures in performing a lab. The writing from your form will break out into three paragraphs.

The image shows two pages of a lab notebook. The left page is titled "Penny Lab" and has a Learning Objective (LO) that reads: "LO: I can follow safety procedures in performing a lab." A large brown rectangular area covers most of the page. The right page is titled "CER" and has a Learning Objective (LO) that reads: "LO: I can write a CER from experiments." The date "September 1" is written in the top right corner. The page number "18" is visible at the bottom left of the left page, and "19" is visible at the bottom left of the right page.

The LO for page 19 reads:

LO: I can write a CER from experiments.

1. *Read* the directions on your half-sheet of paper and let's begin! (Glue later.)
2. *Call* for the teacher to *mop up* water spills. *Do not* use the paper towel! (Use the paper towel to dry the penny between trials.)

Roles:

- **Pipette person:** fill cup about one third
- **Recorder:** keep up on both sheets
- *Switch* after two trials.