Project Element 1: Topic and Data Source (URL)

Instructions

Make sure you have reviewed all of the details on the Project Overview page, including the links to data sources and the list of previous topics.

Choose a topic and find a data source online. Be careful when researching online sources because not all are trustworthy. In general, government, academic, and professional web sites are the most reliable.

Your data must include at least 50 points, and later you will input the data to a spreadsheet.

For this assignment, type the following information in the box below:

1. Submit a URL that leads directly to a web page with the numbers you intend to use.
2. Explain exactly what you will plot in your graph: what variable goes on the X-axis and what is on the Y-axis.

Please note: One type of graph is forbidden. You may not plot earthquake magnitude vs. year. There is no relationship between these two quantities, so you cannot draw any conclusions from graphing them.

Contact the instructor if you have questions.

Due Date: Wednesday March 4 by 11:55 PM CT

Project Element 2: Excel Spreadsheet with Table and Chart

Instructions

Make sure you have reviewed all of the details on the Project Overview page.

Input the data from your source (URL from Project Element 1: Topic and Data) into an Excel spreadsheet. There are several ways to do this:

Tab-Separated Data

Select (highlight) all numbers, and copy. Then paste into cell A1 of a new Excel spreadsheet. Sometimes, when you do this, the data is automatically arranged in separate columns. Other times, all data may be pasted into column A. If this happens, you will need to highlight column A, click on the Data tab in the ribbon, then select Text to Columns. Contact one of the instructors if you have questions.

agency_cd	site_no	datetime	tz_cd	04_00060		04_00060_cd		17_00065
5s	15s	20d	6s 14n	10s	14n	10s				
USGS	05576000		2012-12-24 00:00	CST	2.6	P	4.81	P
USGS	05576000		2012-12-24 00:15	CST	2.6	P	4.81	P
USGS	05576000		2012-12-24 00:30	CST	2.6	P	4.81	P
USGS	05576000		2012-12-24 00:45	CST	2.6	P	4.81	P
USGS	05576000		2012-12-24 01:00	CST	2.6	P	4.81	P
USGS	05576000		2012-12-24 01:15	CST	2.6	P	4.81	P
USGS	05576000		2012-12-24 01:30	CST	2.6	P	4.81	P
USGS	05576000		2012-12-24 01:45	CST	2.6	P	4.81	P
USGS	05576000		2012-12-24 02:00	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 02:15	CST	2.6	P	4.81	P
USGS	05576000		2012-12-24 02:30	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 02:45	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 03:00	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 03:15	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 03:30	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 03:45	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 04:00	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 04:15	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 04:30	CST	2.7	P	4.82	P
USGS	05576000		2012-12-24 04:45	CST	2.7	P	4.82	P

Table of Data

Select (highlight) the entire table, and copy. Then paste into cell A1 of a new Excel spreadsheet.

Date / Time	Dis-charge, ft3/s,	Gage height, feet,
12/24/2012 00:00 CST	2.6[P]	4.81[P]
12/24/2012 00:15 CST	2.6[P]	4.81[P]
12/24/2012 00:30 CST	2.6[P]	4.81[P]
12/24/2012 00:45 CST	2.6[P]	4.81[P]

Downloadable Data

Some data websites provide a link for downloading data into Excel. Look for a link either above or below the table. Download the file, then open it in Excel.

Crude Oil Production

Period-Unit: Monthly-Thousand Barrels

Download Series History | Definitions, Sources & Notes

Production	Graph / Clear	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	View History
U.S.		195,416	187,033	197,056	194,786	194,509	211,434	1920-2012
PADD 1		706	693	701	723	722	902	1981-2012
Florida		171	179	189	173	179	199	1981-2012
New York		31	30	31	31	30	31	1981-2012
Pennsylvania		313	303	313	313	303	422	1981-2012
Virginia		1	1	1	1	1	1	1981-2012
West Virginia		191	181	167	205	209	250	1981-2012

If none of these methods work, you can always type the data into Excel by hand. You may have to do it this way if your numbers come from more than one website, or if you find data in a print publication.

For this assignment:

1. Use one of the methods above to create an Excel file with your data.
    - If your table does not automatically have column headings in row 1, then insert a row and type in headings.
2. Make a graph
    - Choose the scales on both X-axis and Y-axis so that your data points spread across the entire chart area.
    - Include labels on the axes, and add a title to each axis.
    - If your graph has more than one data series, then include a legend to explain.
3. Save your file, and upload it to Moodle by clicking on the button below.

Contact one of the instructors if you have questions.

Due Date: Wednesday March 18 by 11:55 PM CT

Project Element 3: Summary (First Draft)

Instructions

Make sure you have reviewed all of the details on the Project Overview page.

Submit a draft of the summary section of your poster. The summary should:

- Mention the organization, agency, or scientist that collected the data.
- State where the numbers came from and when they were collected.
- Be mostly a discussion of the graph:
    - What the graph shows
    - Why this is valuable information
    - Whether it suggests a direction for future study
    - **Discussion of your graph is the most important part of the summary!**
- Not contain any errors in spelling or grammar. Run a spell-checker!
- Be approximately 300 words in length.
- Fit on a single sheet of paper and fill the entire sheet.
    - On the poster itself, your summary should be in 18-point font.
    - The summary should fill an entire sheet of paper.
    - You may need to play around with margins, font type, and font size to satisfy both of these requirements.

For this assignment, save your summary as a Word or text document; then upload it to Moodle by clicking on the button below. Contact one of the instructors if you have questions.

Due Date: Wednesday April 15 by 11:55 PM CT

Project Element 4: References

Instructions

Make sure you have reviewed all of the details on the Project Overview page.

Submit your complete reference list, including data, background information, pictures, maps, etc. No particular format is required for references, but readers must be able to understand what each reference is and where to find it.

Three references are required, but you will receive a higher score for your poster if you have more.

Websites are acceptable references, but use them carefully. Some websites are more reliable than others. Contact an instructor if you have questions about a specific site. Also, you will receive a higher score if you include printed resources such as textbooks or journals.

For this assignment, copy and paste (or type directly) your references in the box below. Contact one of the instructors if you have questions.

Due Date: Wednesday April 8 by 11:55 PM CT

Project Sample Quiz 1: Introduction (answers in bold)

1. Which choices make up the purpose of a poster session?
   To review others' work To cover a topic in depth
   To present material concisely To compete for the top grade

2. What qualities make a good title?
   Long Short **Informative** **Catchy**

3. Name two possible topics for a Geology 103 poster.
   (Short answer question with any answer accepted)

4. How many data points should you have for your project?
   30 **50** 60 75

5. Which two elements are the most important parts of the poster?
   Picture Map Table **Graph** **Summary**

6. Which statement is true about the graph(s) on a poster?
   A legend is necessary even if there is only one data set.
   Both axes should be clearly labeled.
   No labels are needed on the graph if the summary explains everything.
   The graph should be formatted entirely in black and white.

7. How long should the summary be?
   Exactly 1 page < 1 page 1-2 pages > 2 pages

8. Which sources would be acceptable references?
   Any random website that pops up in a web search
   Scientific journals and their websites
   Government agencies and their websites
   Textbooks and publishers' websites

9. When will the Poster Review Session be held?
   On the last day of classes
   On the Thursday before finals begin (Reading Day)
   During the last lab meeting
   During the scheduled final exam time

10. Which elements contribute to your overall grade?
    Review of other people's posters
    Intermediate submission of Poster Elements (topic, graph, references, and summary)
    Submission of your poster
    Completion of Poster Sample quizzes (such as this one)

Project Sample Quiz 2: Titles (answers in bold)

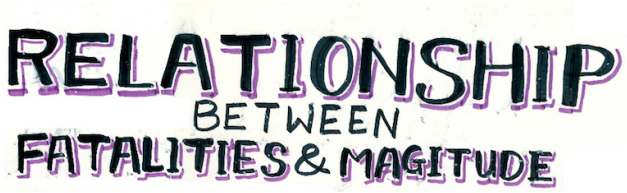
1. Which of these titles is more interesting or intriguing? Which catches your attention better?

Title A

Title B

2. What is wrong with this title?

Handwritten
Too short
Misspelled
Too long



3. Which title is easier to read?

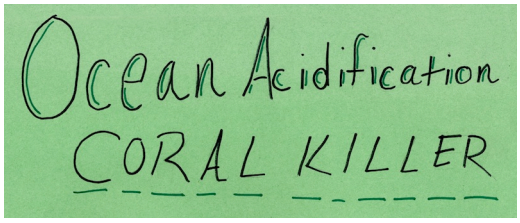
Title A

Title B

4. Both of these titles are written by hand. Most of the text on your poster should be printed by computer, but you may be artistic with the title. If you choose to write your title, you should work carefully and neatly. Note: Some of the irregularities on the images are due to the scanning process, not the original work. Which of these titles is more attractive?

Title B is more attractive.
Both titles are excellent and need no changes to receive full credit.
Title A is more attractive.
Both titles have flaws that reduce their effectiveness.

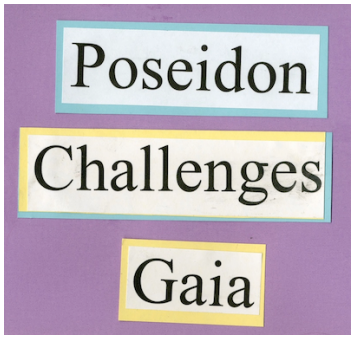
Title A



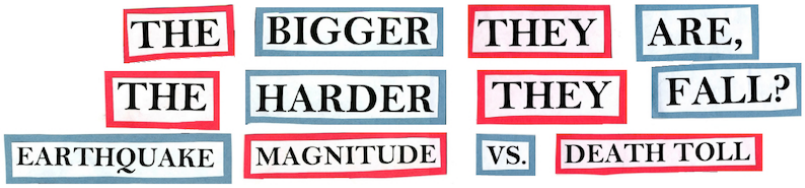
Title B

5. Which of these titles is more informative?

Title A



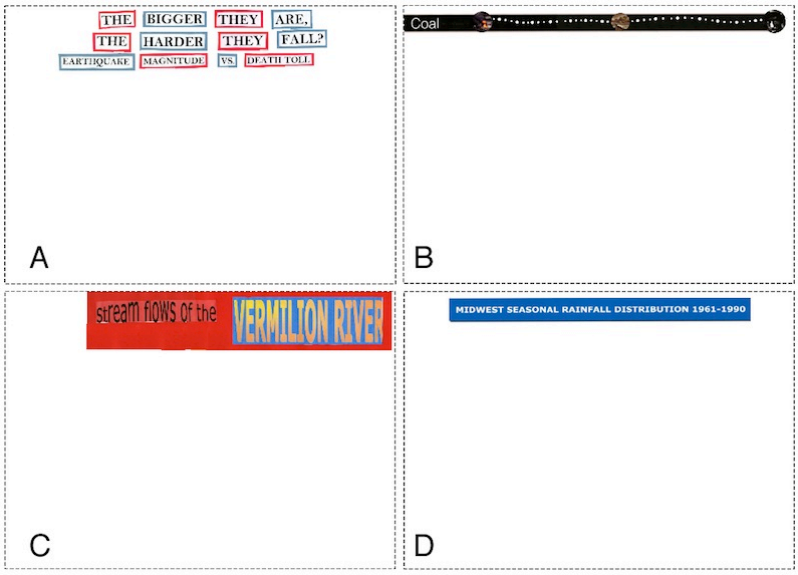
Title B



6. What is wrong with this title?
   - Too short
   - Too long
   - **Uneven**
   - Not informative

7. The poster title should be large enough to see and long enough to inform. However, most of the area of the poster should be occupied by the table, graph, and summary.

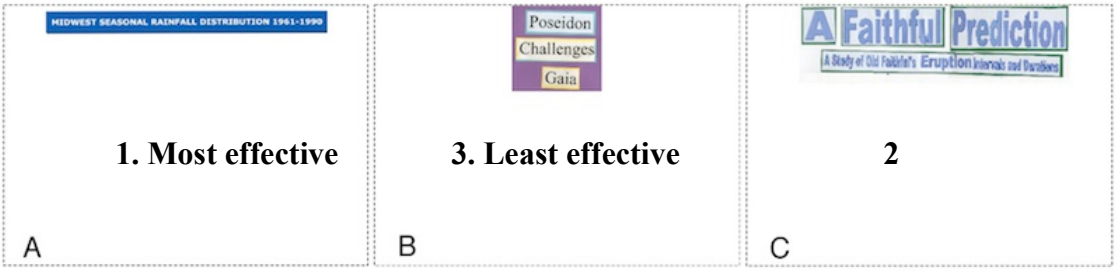
In the figure, rectangles represent poster board; and titles are placed within the rectangles as they were on the posters. Which two posters show a good use of space in sizing the title?
   - Poster A
   - **Poster B**
   - Poster C
   - **Poster D**



8. In the figure, rectangles represent poster board; and titles are placed within the rectangles as they were on the posters. An effective title catches the reader's interest, provides information about the topic, and uses space well.

Rate these three titles according to their overall effectiveness, with 1 = best and 3 = worst.

9. Rate these three titles according to their overall effectiveness, with 1 = best and 3 = worst.



Project Sample Quiz 3: Data Tables (answers in bold)
(tables cropped so not all 50 points show)

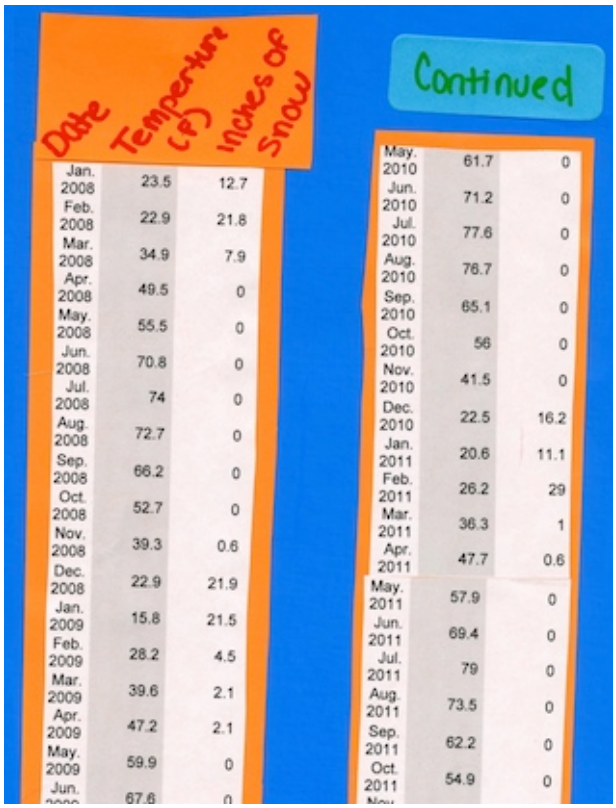
1. This table is missing a figure number, but looking only at the information that is present, what single change would improve the table?
   - Data should be labeled with the proper units.
   - Columns and rows should be separated by solid lines.
   - **Column headings should be centered above data.**
   - The title does not explain what the acronym "BATS" means.

pH LEVELS PER YEAR (BATS)			
YEAR	pH	YEAR	pH
1990	8.08	1995	8.13
1990	8.04	1995	8.13
1990	8.13	1995	8.13
1991	8.13	1995	8.07
1991	8.07	1995	8.06
1991	8.04	1995	8.1
1992	8.07	1996	8.13
1992	8.13	1996	8.095
1992	8.13	1996	8.03
1992	8.135	1996	8.07
1992	8.11	1997	8.12
1992	8.12	1997	8.07
1992	8.07	1997	8.03
1993	8.04	1998	8.11
1993	8.11	1998	8.12
1993	8.04	1998	8.12
1993	8.06	1998	8.12
1993	8.08	1998	8.03
1994	8.06	1999	8.12
1994	8.13	2000	8.12
1994	8.132	2000	8.07

Date	Place	Death toll	Magnitude
10/10/86	El Salvador	1000	5.5
5/25/23	Iran	2200	5.7
5/28/03	Turkey	1000	5.8
8/2/51	Nicaragua	1000	5.8
5/31/46	Turkey	1300	5.9
2/4/98	Afghanistan	2323	5.9
7/26/63	Macedonia	1100	6
1/25/99	Colombia	1185	6.1
3/25/02	Afghanistan	1000	6.1
1/14/07	Jamaica	1000	6.5
5/6/76	Italy	1000	6.5
7/23/30	Italy	1404	6.5
9/6/75	Turkey	2300	6.7
8/20/88	India	1000	6.8
3/16/06	Taiwan	1250	6.8
9/9/54	Algeria	1250	6.8
5/21/03	Algeria	2266	6.8
3/28/70	Turkey	1086	6.9
3/22/66	China	1000	5.7

2. What is missing from this table? Select as many as apply.
   - Units used for data
   - **Figure number**
   - Font size that is easy to read
   - **Table title**

3. What problem(s) do you see in this table? Select as many as apply.
   - No units are given for data.
   - **The table is mounted unevenly on the poster.**
   - **Column headings are written by hand.**
   - **The table has no title or figure number.**
   - **Column widths need to be adjusted.**



Date	Temperture (°F)	Inches of Snow
Jan. 2008	23.5	12.7
Feb. 2008	22.9	21.8
Mar. 2008	34.9	7.9
Apr. 2008	49.5	0
May. 2008	55.5	0
Jun. 2008	70.8	0
Jul. 2008	74	0
Aug. 2008	72.7	0
Sep. 2008	66.2	0
Oct. 2008	52.7	0
Nov. 2008	39.3	0.6
Dec. 2008	22.9	21.9
Jan. 2009	15.8	21.5
Feb. 2009	28.2	4.5
Mar. 2009	39.6	2.1
Apr. 2009	47.2	2.1
May. 2009	59.9	0
Jun. 2009	67.6	0
May. 2010	61.7	0
Jun. 2010	71.2	0
Jul. 2010	77.6	0
Aug. 2010	76.7	0
Sep. 2010	65.1	0
Oct. 2010	56	0
Nov. 2010	41.5	0
Dec. 2010	22.5	16.2
Jan. 2011	20.6	11.1
Feb. 2011	26.2	29
Mar. 2011	36.3	1
Apr. 2011	47.7	0.6
May. 2011	57.9	0
Jun. 2011	69.4	0
Jul. 2011	79	0
Aug. 2011	73.5	0
Sep. 2011	62.2	0
Oct. 2011	54.9	0

4. There are several problems with this table. Match each phrase below to the correct description of a mistake.

    The data set ... includes too many points.

    Pairs of columns ... overlap in a disorderly arrangement

    Data for number of deaths ... vary so widely that they would be difficult to graph.

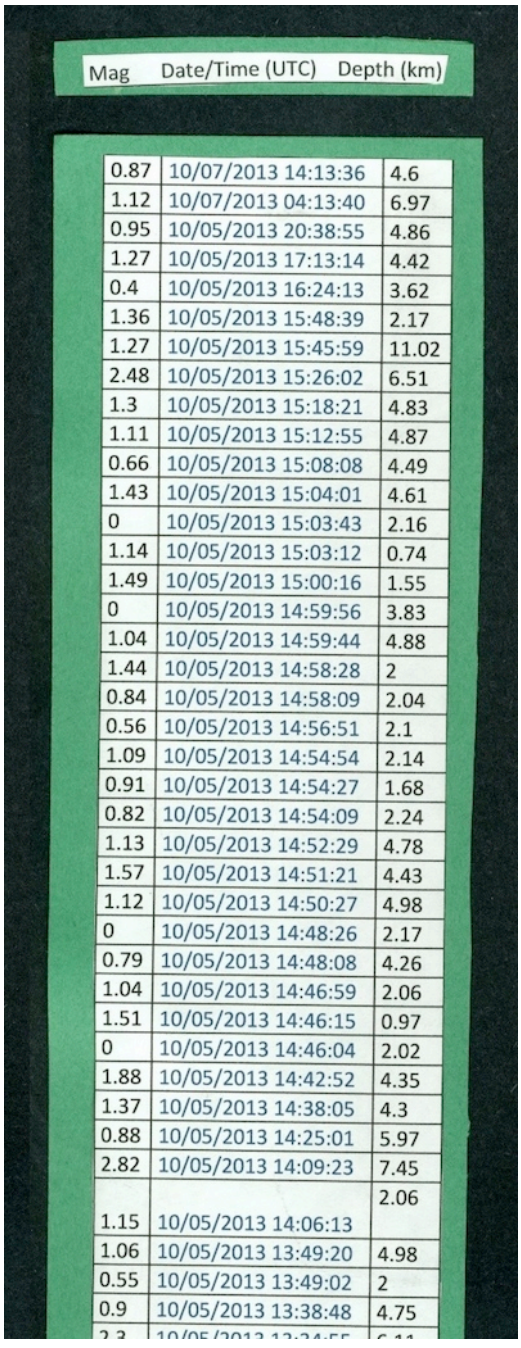
    The title ... is hard to read against a black background.

    Rows and columns ... are mounted unevenly on the posterboard.

Earthquakes with 1000+ Deaths Since 1900

Deaths	Magnitude	Deaths	Magnitude	Deaths	Magnitude	Deaths	Magnitude
316000	7	10000	7.5	2800	7.4	1362	8.1
242769	7.5	9748	6.2	2800	5.7	1342	6.9
227898	9.1	9500	8	2800	6	1313	8.6
200000	7.8	9300	7.5	2790	7.4	1300	5.9
142800	7.9	8000	7.4	2740	6.5	1250	6.8
110000	7.3	8000	7.9	2735	6.5	1250	6.8
87587	7.9	6000	7.3	2529	6.8	1200	7.1
86000	7.6	5800	7	2500	7.2	1190	7.4
72000	7.2	5749	6.3	2500	6	1185	6.1
70000	7.9	5502	6.9	2500	7.5	1130	7.1
50000	7.4	5300	6.2	2400	7.6	1117	7.5
40900	7.6	5054	7.1	2323	5.9	1100	7.3
32700	7.8	5050	6.8	2300	6.7	1100	6
32610	7	5000	6.2	2266	6.8	1086	6.9
31000	6.6	5000	7.3	2200	5.7	1070	7.3
30000	7.6	5000	7.7	2200	6.9	1000	5.8
28000	7.8	4700	6.4	2183	7	1000	8.8
25000	6.8	4000	7	2000	7.5	1000	6.5
23000	7.5	4000	7.6	2000	7	1000	7.4
20896	9	4000	8	2000	7	1000	7.3
20085	7.6	4000	6.6	1989	7.5	1000	5.8
20000	6.8	3882	8.2	1961	7.1	1000	7
19000	7.5	3800	7.2	1800	7.5	1000	6.9
17118	7.6	3769	7.3	1655	9.5	1000	6.9
15000	5.7	3500	7	1621	7.7	1000	6.5
15000	7.8	3500	7.3	1567	7.3	1000	5.5
12225	7.1	3270	7.1	1526	8.6	1000	7
12000	8	3020	7.6	1500		1000	6.8
12000	7.5	3000	7.8	1500	7.2	1000	6.1
12000	7.3	3000	8.4	1500	7.3		
10700	8.1	3000	5.9	1404	6.5		
10000	8	3000	6.9	1400	7.3		

Data taken from U.S. Geological Survey



Mag	Date/Time (UTC)	Depth (km)
0.87	10/07/2013 14:13:36	4.6
1.12	10/07/2013 04:13:40	6.97
0.95	10/05/2013 20:38:55	4.86
1.27	10/05/2013 17:13:14	4.42
0.4	10/05/2013 16:24:13	3.62
1.36	10/05/2013 15:48:39	2.17
1.27	10/05/2013 15:45:59	11.02
2.48	10/05/2013 15:26:02	6.51
1.3	10/05/2013 15:18:21	4.83
1.11	10/05/2013 15:12:55	4.87
0.66	10/05/2013 15:08:08	4.49
1.43	10/05/2013 15:04:01	4.61
0	10/05/2013 15:03:43	2.16
1.14	10/05/2013 15:03:12	0.74
1.49	10/05/2013 15:00:16	1.55
0	10/05/2013 14:59:56	3.83
1.04	10/05/2013 14:59:44	4.88
1.44	10/05/2013 14:58:28	2
0.84	10/05/2013 14:58:09	2.04
0.56	10/05/2013 14:56:51	2.1
1.09	10/05/2013 14:54:54	2.14
0.91	10/05/2013 14:54:27	1.68
0.82	10/05/2013 14:54:09	2.24
1.13	10/05/2013 14:52:29	4.78
1.57	10/05/2013 14:51:21	4.43
1.12	10/05/2013 14:50:27	4.98
0	10/05/2013 14:48:26	2.17
0.79	10/05/2013 14:48:08	4.26
1.04	10/05/2013 14:46:59	2.06
1.51	10/05/2013 14:46:15	0.97
0	10/05/2013 14:46:04	2.02
1.88	10/05/2013 14:42:52	4.35
1.37	10/05/2013 14:38:05	4.3
0.88	10/05/2013 14:25:01	5.97
2.82	10/05/2013 14:09:23	7.45
1.15	10/05/2013 14:06:13	2.06
1.06	10/05/2013 13:49:20	4.98
0.55	10/05/2013 13:49:02	2
0.9	10/05/2013 13:38:48	4.75

5. This data set was downloaded as a .xls file, and it was not reformatted properly for the poster. Which choice(s) below identify problems with the way this table is formatted?

    One row of the table is twice as high as all the others.

    The table does not give a location.

    Date and time should be in separate columns.

    All earthquakes occurred on only three days, so the Date/Time column is not needed.

    The table has a title, but it also needs a figure number.

6. Which table do you think is easier to read? Briefly explain your answer. Note: Both tables have been shortened for this question, so not all data is shown.
(Short answer question with any answer accepted)

Annual Lake Height of Devil's Lake North Dakota. **Table A**

Date	Lake Gage Height (ft)	Date	Lake Gage Height (ft)
1964	1411	1990	1423
1965	1411	1991	1423
1966	1411	1992	1423
1967	1413	1993	1422
1968	1413	1994	1427
1969	1411	1995	1431
1970	1412	1996	1435
1971	1416	1997	1440
1972	1422	1998	1442

Table B

Deaths	Magnitude	Deaths	Magnitude	Deaths	Magnitude
316000	7	25000	6.8	9500	8
242769	7.5	23000	7.5	9300	7.5
227898	9.1	20896	9	8000	7.4
200000	7.8	20085	7.6	8000	7.9
142800	7.9	20000	6.8	6000	7.3
110000	7.3	19000	7.5	5800	7
87587	7.9	17118	7.6	5749	6.3
86000	7.6	15000	5.7	5502	6.9
72000	7.2	15000	7.8	5300	6.2
70000	7.9	12225	7.1	5054	7.1
50000	7.4	12000	8	5050	6.8
40900	7.6	12000	7.5	5000	6.2
32700	7.8	12000	7.3	5000	7.3
32610	7	10700	8.1	5000	7.7
31000	6.6	10000	8	4700	6.4
30000	7.6	10000	7.5	4000	7
28000	7.8	9748	6.2	4000	7.6

7. Which of these two tables do you think looks better? Briefly explain your answer.
(Short answer question with any answer accepted)

Table B

Largest Earthquakes Magnitude	Number of Fatalities
9	20896
8.8	507
8.1	192
7.9	87587
8.5	25
8.3	0
8.6	1313
9.1	227898
8.3	0
7.9	0
8.4	138
8	2
7.7	2297
8.1	0
7.8	0
7.8	0
8.2	166
8	3
8	49
8.3	11
7.8	0
7.8	2519
7.6	75
7.6	0
7.7	1621

Table A

Year	Inches of Snowfall
1959	47.7
1960	48.6
1961	44.2
1962	45.7
1963	45.5
1964	41.5
1965	51.2
1966	27.3
1967	71.4
1968	32.8
1969	40.7
1970	61.1
1971	40.5
1972	64.6
1973	42.3
1974	56.4
1975	53.3
1976	36.1
1977	64.3
1978	101.6
1979	56.9
1980	37
1981	30
1982	51
1983	37.1
1984	39.7
1985	35.1
1986	28.5
1987	38.7
1988	38.4
1989	34.4
1990	21.8
1991	30.8
1992	24
1993	42.9
1994	41.5
1995	22.5
1996	28.6
1997	42.7
1998	24.4
1999	56
2000	68
2001	13.5
2002	45
2003	25
2004	25.6
2005	54.5
2006	16.3
2007	49.9
2008	57.8
2009	45.9
2010	43.1
2011	40.8
2012	20.9

8. Which of these two tables do you think is better overall? Briefly explain your answer.
(Short answer question with any answer accepted)

Table A

STATE	ANNUAL RAINFALL	WINTER (%)	SPRING (%)	SUMMER (%)	FALL (%)
ILLINOIS	38.69	16.7	29.1	29.8	24.3
INDIANA	40.59	18.8	28.9	29.1	23.1
IOWA	33.08	9.2	28.2	38.1	24.6
KENTUCKY	48.15	23.6	28.6	25.9	22
MICHIGAN	32.17	17.4	24	30	28.6
MINNESOTA	26.63	8.7	25.1	41.8	24.5
MISSOURI	41.15	15.8	29.4	28.5	26.2
OHIO	38.14	19.1	28.1	29.8	23
WISCONSIN	31.68	11.1	25.4	36.6	26.9
MIDWEST	36.7	15.6	27.4	32.2	24.8

Data: Percentages of rainfall collected from 1961-1990 in the Huff and Angel study.

Table B

INTENSITY OF LARGEST EARTHQUAKE IN U.S. BY STATE & REGION

Regions in the U.S.

West		Southwest		Mid-West		Southeast		Northeast	
State	Intensity	State	Intensity	State	Intensity	State	Intensity	State	Intensity
WA	9	TX	8	ND	(N/A)	KY	7	ME	7
OR	7	OK	(N/A)	SD	5	TN	7	NH	7
CA	11	AR	11	NE	7	MS	12	VT	5
ID	9	LA	6	KS	7	AL	7	MA	8
NV	10			MN	6	WV	6	RI	8
MT	10			IA	5	VA	8	CT	7
UT	8			MO	10	NC	7	NY	8
AZ	6			WI	5	SC	10	NJ	6
WY	(N/A)			IL	7	GA	5		
CO	7			MI	6	FL	6		
NM	7			IN	7	DE	7		
AK	10			OH	8	MD	4		
HI	10								
Average	8.6667	Average	8.3333	Average	6.6364	Average	7.1667	Average	7

Project Sample Quiz 4: Graphs (answers in bold)

1. This graph presents interesting information in a confusing way. The point of the poster is to look at aftershocks of the 2011 earthquake in various parts of Japan. Match the selections below to describe some problems with this graph.

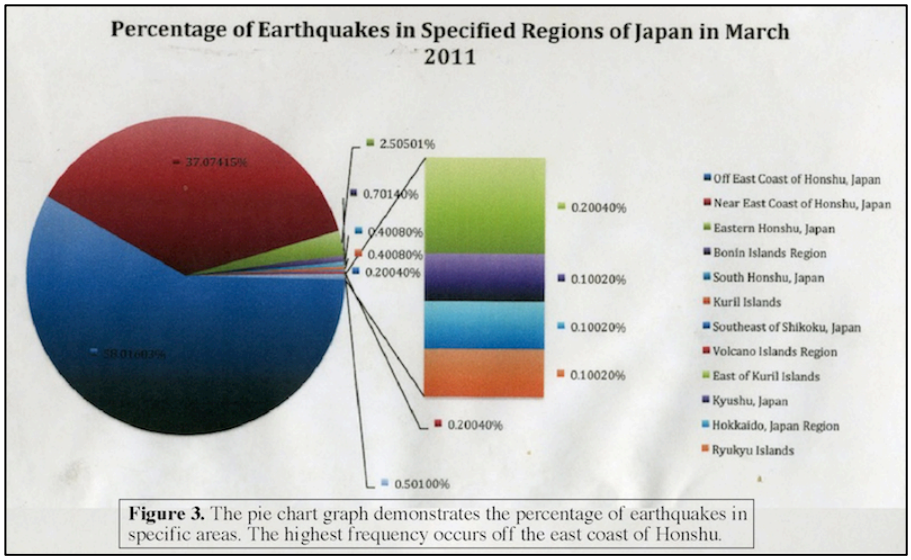
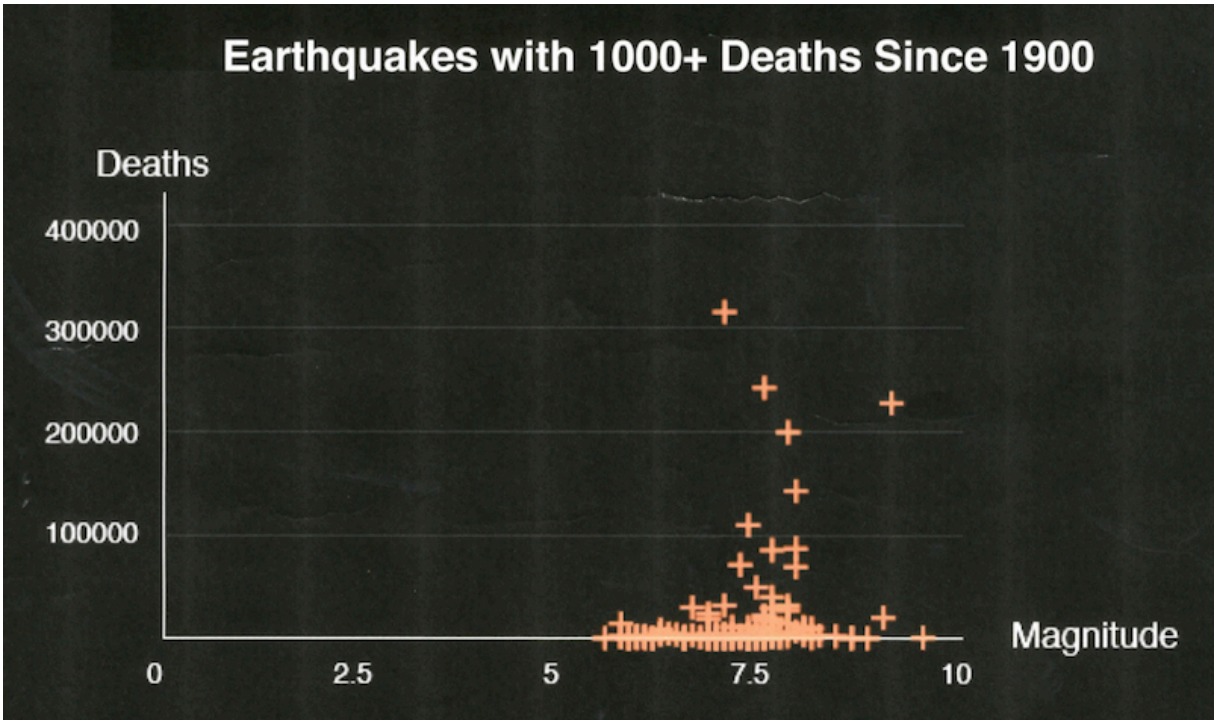


Figure 3. The pie chart graph demonstrates the percentage of earthquakes in specific areas. The highest frequency occurs off the east coast of Honshu.

   Values for the smallest wedges are hard to read because ... the lines overlap.
   It would be better to make another graph ... showing the smaller frequencies.
   Font color in the large red and blue wedges ... is too dark to read easily.
   Percentage values should be ... rounded to two significant figures.

2. Which of the choices below identify errors in this graph? Select as many as apply.

   A dark colored background with light colored points, lines, and letters is hard to read.
   The Y-axis should be formatted with a logarithmic scale, so that most points do not cluster at the bottom of the graph.
   The title for the X-axis should be under the graph, and the title for the Y-axis should be to the left of the graph.
   The X-axis should be rescaled so that the minimum value is 5, instead of 0.



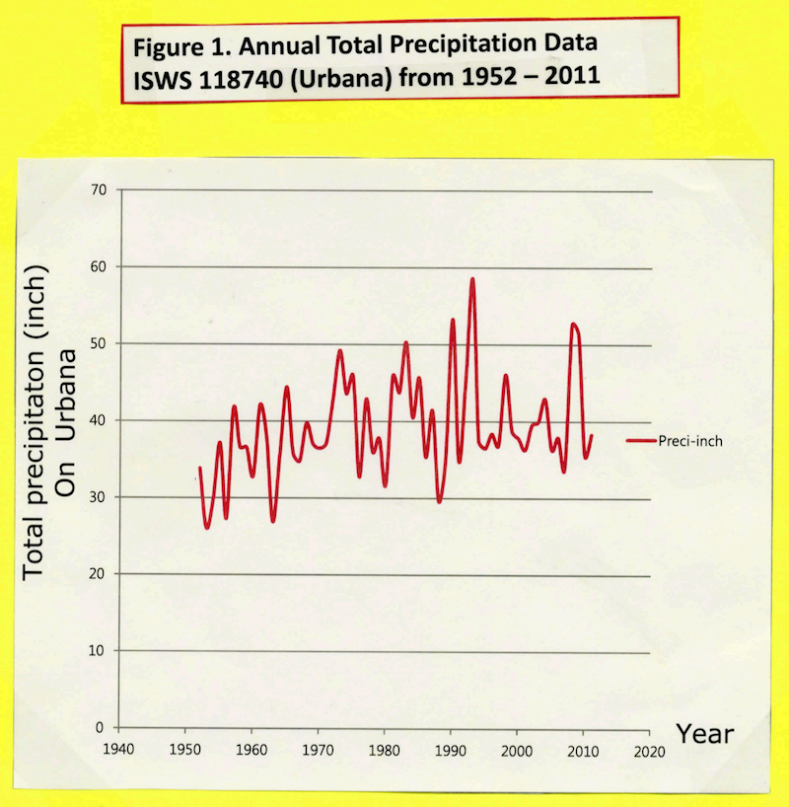
3. There are several changes in formatting that would improve this graph. Select as many changes as needed from the list below.

Delete the legend.

Change the X-axis scale so that the minimum = 1950.

Change the Y-axis scale so that the minimum = 20 and the maximum = 60.

Align the caption evenly with the graph.



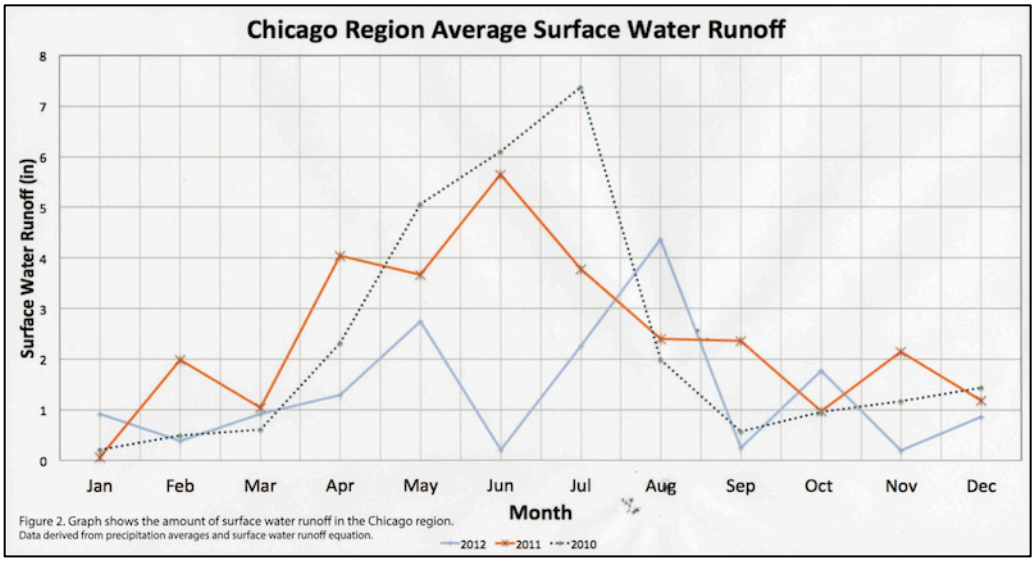
4. Look closely at the X-axis of this graph. What aspect of the X-axis is confusing?

Names of months should be written out in full.

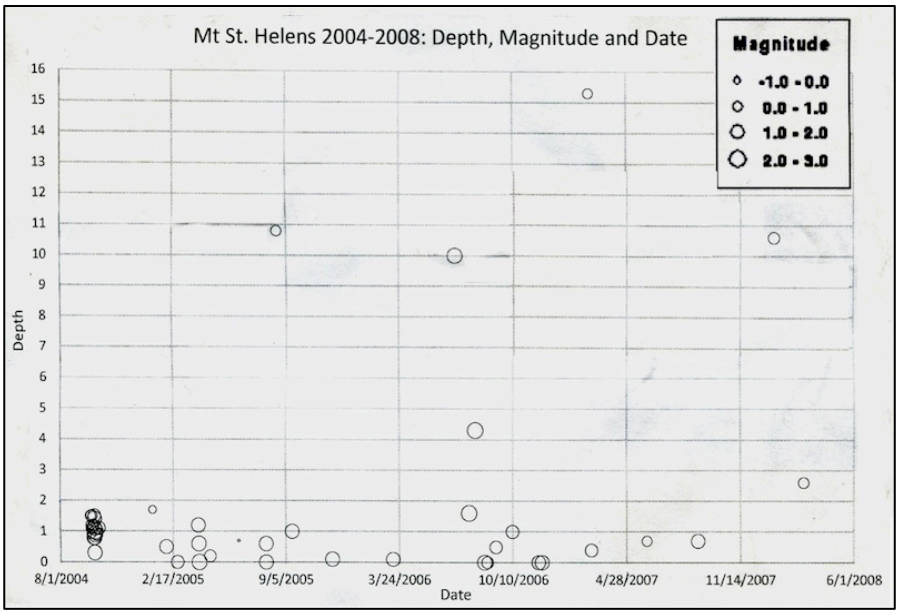
Months are spaced evenly across the graph, even though their actual lengths differ.

June runoff varies widely from year to year.

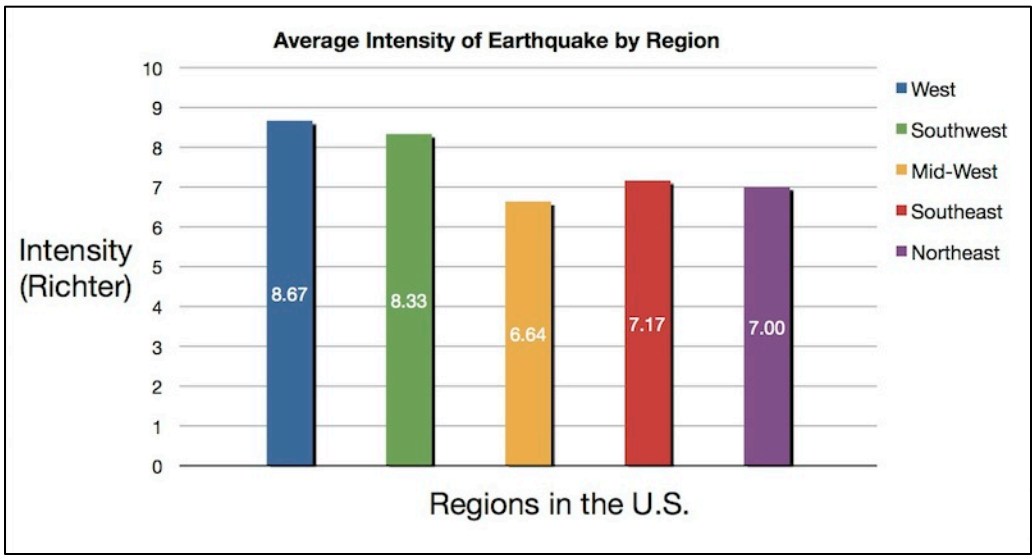
X-values should be daily measurements, not monthly averages.



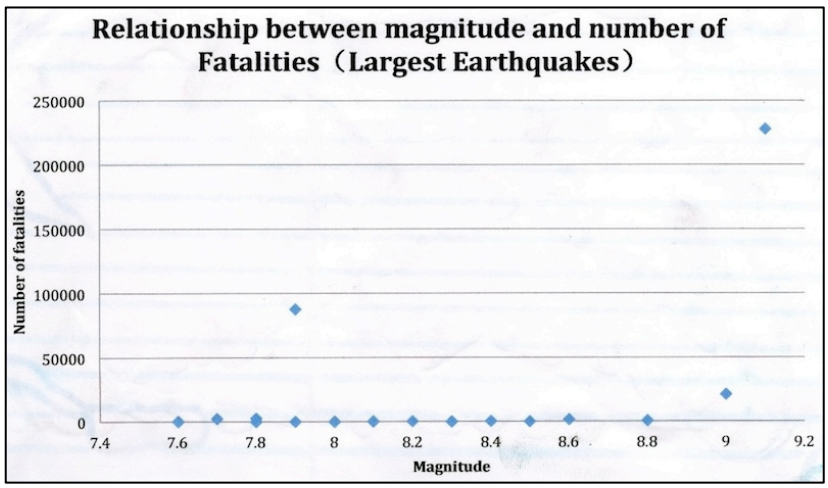
5. There is one fatal mistake in this graph. What is it?
   - The legend is blurry and hard to read.
   - Font size along both axes is too small.
   - Units used on the Y-axis are not defined.
   - **The graph was not made using Excel.**



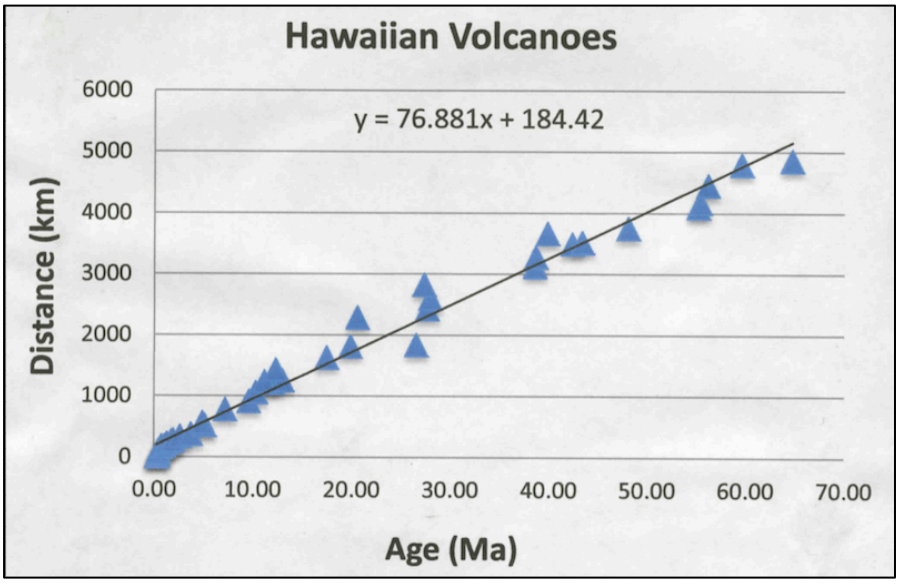
6. This graph is mostly well done. What one error needs fixing?
   - There are not 50 data points.
   - It needs a figure number and caption.
   - The chart should have lines along both right and left sides.
   - **The chart and Y-axis titles say "Intensity" but the axis title includes "Richter."**



7. Do you think that this graph is informative? Does it really show the relationship between magnitude and death toll for the largest earthquakes? Briefly explain your answer.
   - **(Short answer question with any answer accepted)**



8. The Y-axis here represents the distance between successive volcanoes and the Hawaii hot spot itself. Comment on the overall effectiveness of this graph. Is it well formatted? Does it have all necessary information? Is it informative? Is it easy to read? Answer with 30-50 words.
(Short answer question with any answer accepted)



9. Comment on the overall effectiveness of this set of graphs. Are they well formatted? Do they have all necessary information? Are they informative? Are they easy to read? Answer with 30-50 words.
(Short answer question with any answer accepted)

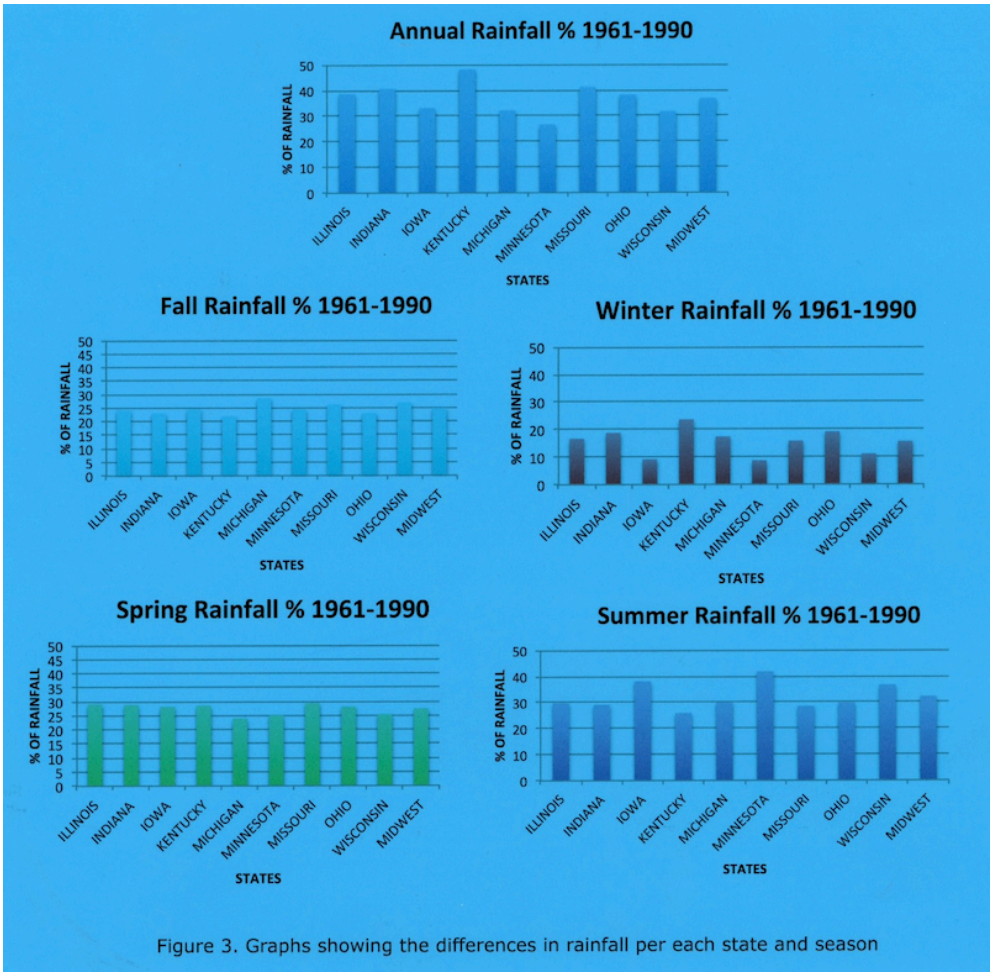


Figure 3. Graphs showing the differences in rainfall per each state and season

Project Sample Quiz 5: Summaries (answers in bold)

1. Technical requirements for the Poster Summary are as follows:
   - 200–300 words
   - 1 page long
   - 18-point font (readable from arm's length)

   For the three summaries shown below, the dashed rectangle outlines a sheet of paper that is US letter size (8.5 x 11 inches). Scan the appearance of these summaries—you do NOT have to try to read them.

   Which summary seems to best satisfy the technical requirements?

Summary A

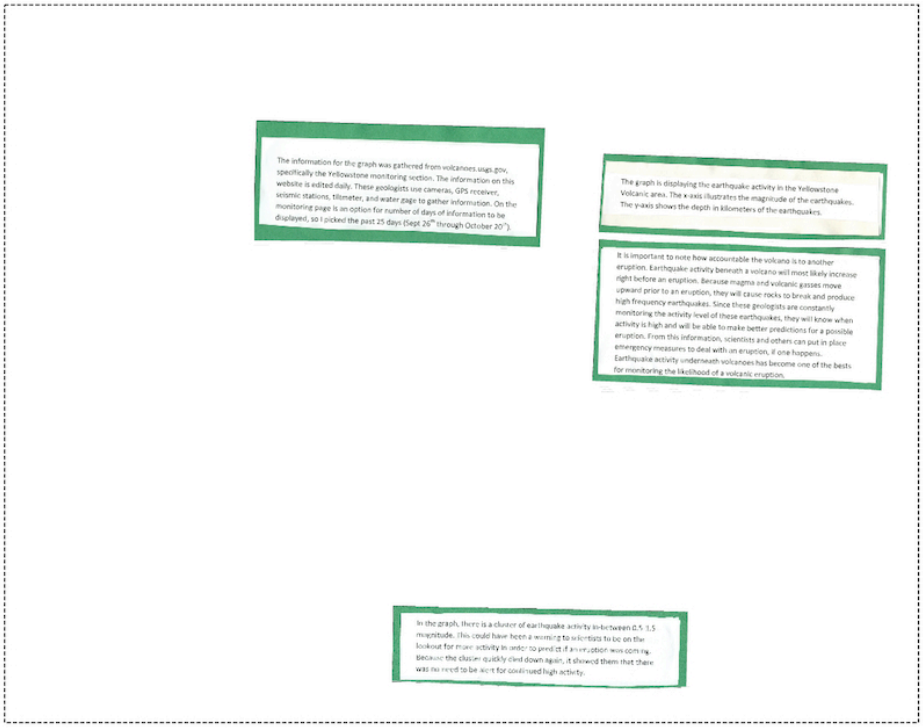
Summary B

Summary C

2. This summary was separated into several pieces that were placed in various places on the poster. The black dashed line shows the edges of the poster board, and the blank spaces were filled by other poster elements.

   Scan this arrangement of the summary. You do NOT have to try to read the text. Evaluate the overall effectiveness of presenting the summary in this way. Your answer should contain 15–20 words.

   (Short answer question with any answer accepted)



3. What is the most serious error in this summary?
   - Verb tenses are mixed: Some are present tense, while others are past tense.
   - Pronouns are used inconsistently, changing from first person (I) to third person (the user).
   - The word "data" is plural, so the first sentence should say "The data ... were..." instead of "The data ... was..."
   - **Font color changes back and forth between black and underlined gray.**

The data utilized for researching the correlation of an earthquake's depth with its magnitude was obtained from the Incorporated Research Institutions for Seismology. I obtained the data from an interactive map (Figure 3) that allows users to zoom in on a specific area as earthquakes appear where I collected data on 50 earthquakes with various depths and magnitudes spread throughout Indonesia.

Since I am evaluating whether any relationship, exists between an earthquake's magnitude and its depth, I used these values as the variables. I arranged depth values on the yaxis in reverse order to display the deepest earthquakes at the bottom.

At first it was difficult to pinpoint an exact relationship, because data seemed to be scattered throughout the graph. Secondly, fifty EQs is a very small data set, so an accurate correlation cannot be made. There may indeed be a slight correlation between depth and magnitude on figure 2, yet it's not sufficient to apply to the world. Usually, large-magnitude quakes occur within the lithosphere (above 100 km), and smaller-magnitude quakes may occur at any depth.

4. The sentence below, taken from the first draft of a summary, contains several errors. Match each part of the quotation to the error it contains.

   "More research could be done to see where the state's that produce more coal than they use send the leftovers, this would most likely correlate very well with the information found in the graph."

   "the state's that produce more coal" ... Incorrect plural form for a noun
   "most likely correlate very well" … Too emphatic
   "that produce more coal than they use send the leftovers" … Awkward phrasing
   "send the leftovers, this would" … Incorrect punctuation
   "the leftovers" … Strange way to refer to a valuable resource

5. The following passage is part of the summary for a poster on the topic of temperature and snowfall. Read through the excerpt and identify the major error it contains.

   "I decided to look into whether the temperature correlates with the inches of snow. I got all my data from the Illinois State Water Survey at Chicago, Illinois. The graph shows the mean temperature for each month from January 2008 to May 2013 and the total inches of snowfall for each month. The temperature starts low in winter, then goes up to a summer peak, and decreases again toward the next winter. Snow is the exact opposite: it starts at a peak, then decreases and bottoms out in summer, then increases back to the peak. All in all, you can see that the temperature and total snowfall are correlated. As the snowfall goes up, the temperature goes down...

   This is valuable information because it could help scientists predict the inches of snow from predicted temperature. This could also be another way of tracking global warming. This is interesting because some would think that after the temperature goes below 32o F, the amount of snow would not be affected. This isn't the case according to my graph, because the lower the temperature, the greater the snowfall.

   - The passage does not refer to the graph or explain what it shows.
   - **The topic is weather, but the last paragraph brings up global warming.**
   - The analysis includes summer months; therefore its conclusion is skewed.
   - The first paragraph merely states the obvious.

6. Read through this Poster Summary. From the information given, match each figure number to its description
   - Figure 1 … Unknown
   - Figure 2 … Unknown
   - Figure 3 … Graph of magnitude vs. death toll
   - Figure 4 … Graph of earthquakes in different regions

The largest earthquake ever recorded happened in the year 1960 in southern Chile, with a magnitude of 9.5 on the Richer scale (Figures 1 and 2). However, it was not the most deadly. The earthquake with the highest death toll was in Taiwan in 1999 with a death toll of 2,400. In the data I have recorded from U.S. Geological Survey, I compare the magnitude of the earthquake to the number of deaths recorded and show the region of where the earthquake occurred. The data are from the earthquakes that have happened in the past 100 years with 1,000 or more deaths and are updated every January.

There are two tables that I made to show the data collected and I have made two graphs to show illustrate the comparison. The first (Figure 3) shows a plot of magnitude vs. death toll. From the graph you can see that there is no real pattern or correlation between the two variables. The highest death toll earthquake was one with a magnitude of 7.5. The largest earthquake (Chile; 9.5 magnitude) had a death toll of 1,655. There is no connection.

The second graph (Figure 4) shows the region in the world of which the earthquake took place and the number of earthquakes that occurred there. We see more of a pattern here, because most of the earthquakes recorded were in the Middle East and East Asia, both areas have many faults. The Middle East lies between the converging African Plate and the Eurasian Plate. It is being squeezed and broken by them, making it a complex region. East Asia is complex as well; geologists have been studying it and believe that it consists of a number of small plates caught in the convergence zones along the Indiana, Australian, Philippine, and Eurasian Plates.

Limestone is a sedimentary rock formed from crystalized calcium carbonate. Its crystals can form out of the calcium carbonite shells of corals and other marine animals, or through inorganic precipitation of calcite. It is by far the most abundant rock in Illinois. In fact, most of the bedrock of Illinois is limestone. Its abundance equates to its use for gravel, building material and foundation rock. It is put into paint, paper, and toothpaste as a color additive. Limestone can be mixed with sand or gravel to make cement. Limestone is also added to bread as a source of calcium. Very finely ground limestone is used by farmers to neutralize the PH of the soil. The rock is also used as an additive for crop fertilizers. All in All, Limestone is very important to those living in Illinois.

Limestone is not always pure calcium carbonate. The rock often has other minerals and Chemicals incorporated into its composition. For instance it might have copper or iron. Or it might contain sodium, potassium or barium. These other metals are called trace elements. Trace elements are largely responsible for how easily limestone will weather and erode away. As these trace elements dissolve very well in water and can pull electrons away from the carbonate structure of the limestone, allowing more of the limestone to be lost to the forces of water and air. Trace elements also determine how well limestone can be used for building material, food additives, and agriculture products; as trace elements are able to strengthen or weaken limestone's physical properties

My graph and table show amounts of the trace element sodium in Illinois limestone. I have selected different quarries from all around the state to see if there was a pattern to the amount of sodium in limestone from north to south. There was not a recognizable pattern of amounts of sodium in limestone from north to south. And for the most part, all quarries produced limestone with relatively small masses of sodium. Limestone low in sodium is ideal, for low sodium limestone erodes less and displays the chemistry that is crucial to Illinois agriculture and industry. All in all, the bedrock of our state is in a good chemical state and it gives a solid foundation for agriculture, industry and way of life we now enjoy.

7. Read through the complete Poster Summary to the left, then rate each aspect as Excellent, Good, Fair, or Poor.
   - Discussion of graph … Fair
   - Grammar … Good
   - Background information … Excellent
   - Reference to figures … Poor
   - Overall appearance … Good

Project Sample Quiz 6: Pictures (answers in bold)

1. Proper formatting for pictures on the poster includes the following:
   - Each picture should have a figure number.
   - Each picture should have an explanatory caption.
   - All text on the poster, for pictures and other elements, should be computer-generated, not hand-written.
   - Pictures should be carefully mounted on poster board.

   Which formatting requirements does this picture satisfy? Check as many as apply.

   Has a caption.
   Mounted neatly on posterboard.
   Edge is even.
   Information is printed by computer.
   Has a figure number.

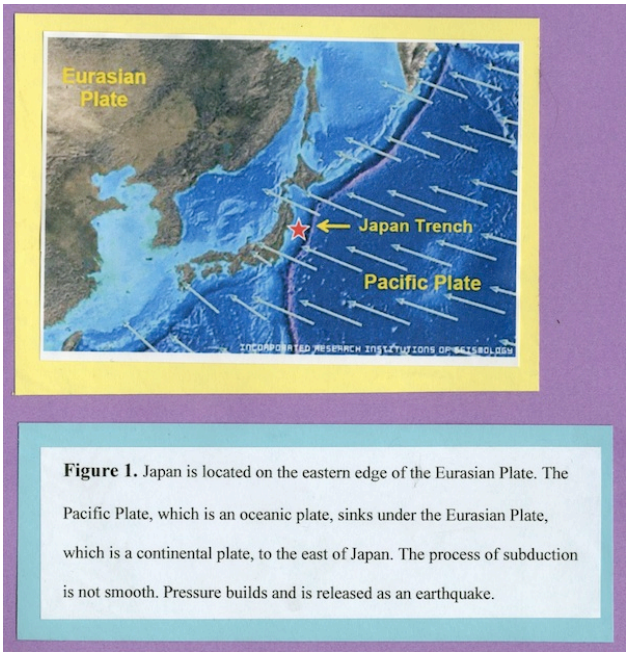


Figure 1. Japan is located on the eastern edge of the Eurasian Plate. The Pacific Plate, which is an oceanic plate, sinks under the Eurasian Plate, which is a continental plate, to the east of Japan. The process of subduction is not smooth. Pressure builds and is released as an earthquake.

2. Proper formatting for pictures on the poster includes the following:
   - Each picture should have a figure number.
   - Each picture should have an explanatory caption.
   - All text on the poster, for pictures and other elements, should be computer-generated, not hand-written.
   - Pictures should be carefully mounted on poster board.

   Which formatting requirements does this picture satisfy? Check as many as apply.

   Has a caption.
   Mounted neatly on posterboard.
   Edge is even.
   Information is printed by computer.
   Has a figure number.

3. Which formatting requirements does this picture satisfy? Check as many as apply.

   Has a caption.
   Mounted neatly on posterboard.
   Edge is even.
   Information is printed by computer.
   Has a figure number.

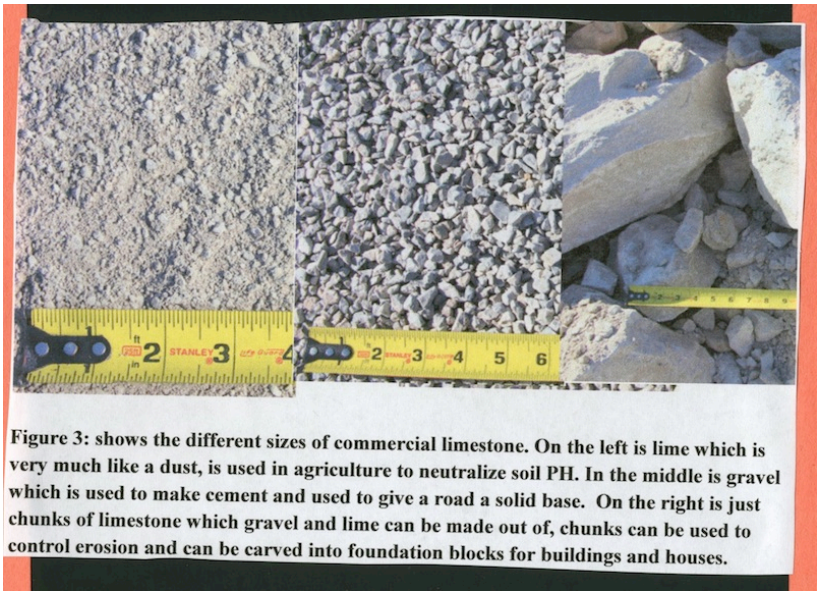


Figure 3: shows the different sizes of commercial limestone. On the left is lime which is very much like a dust, is used in agriculture to neutralize soil PH. In the middle is gravel which is used to make cement and used to give a road a solid base. On the right is just chunks of limestone which gravel and lime can be made out of, chunks can be used to control erosion and can be carved into foundation blocks for buildings and houses.

4. Which formatting requirements does this picture satisfy? Check as many as apply.

Has a caption.
Mounted neatly on posterboard.
Edge is even.
Information is printed by computer.
Has a figure number.

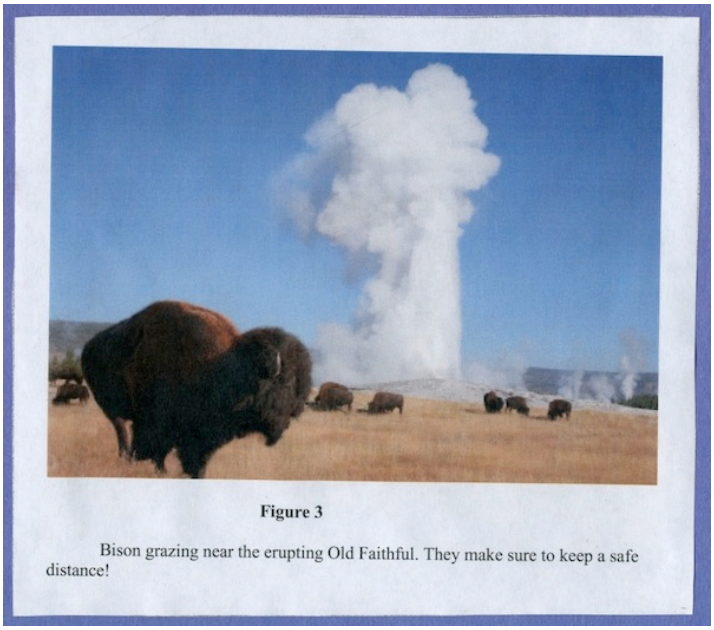
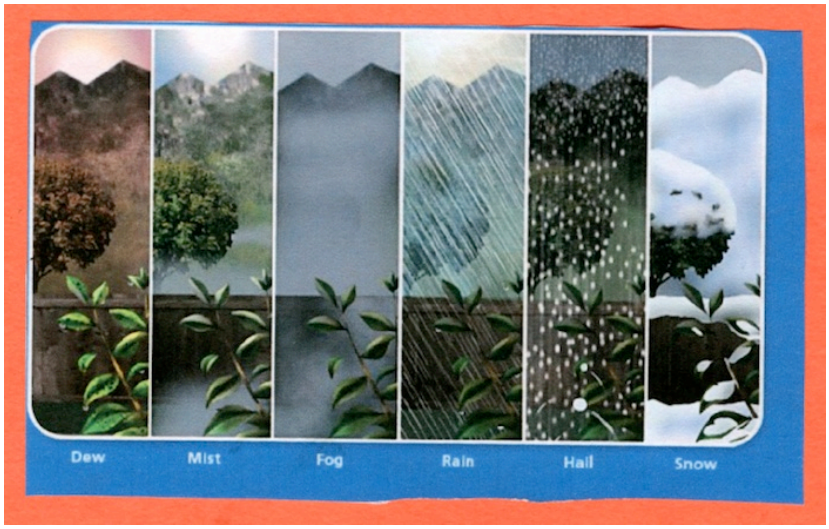


Figure 3

Bison grazing near the erupting Old Faithful. They make sure to keep a safe distance!

5. Which formatting requirements does this picture satisfy? Check as many as apply.

Has a caption.
Mounted neatly on posterboard.
Edge is even.
Information is printed by computer.
Has a figure number.



6. The purpose of a caption is to explain what the picture illustrates. Details could include the location, date, and which part or parts of the picture to focus on. For this picture, how informative is the caption?

Does not explain the picture.
Explains some details of the picture.
Gives the location.
Gives the date.
Explains most of the details of the picture

The effect of an earthquake on railroad tracks.

7. Which choice below would be the best improvement for the existing caption on this picture?

Results of coal mining in Centralia, PA.

This is what happens to the land and people where coal is mined.

Underground coal mining is the most dangerous occupation in the United States.

Coal mining in Centralia PA. a) Miner *(year);* b) Ground subsidence (*year*); c) Underground explosion (*year*).

8. Which choice states the best comparison between these two pictures and their captions?

B is better because the caption is more detailed.

A is better, because it has many labels and the caption is brief and clear.

A is better because it was drawn by a student, not downloaded from the internet.

B is better, because it uses photographs from the real world.

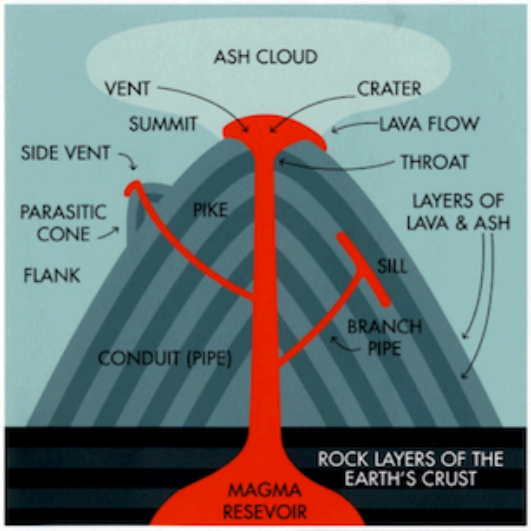


Figure 4. An illustration of all the parts of a volcano

Picture A

Picture B

Figure 3: shows the different sizes of commercial limestone. On the left is lime which is very much like a dust, is used in agriculture to neutralize soil PH. In the middle is gravel which is used to make cement and used to give a road a solid base. On the right is just chunks of limestone which gravel and lime can be made out of, chunks can be used to control erosion and can be carved into foundation blocks for buildings and houses.

9. Which choice best describes the caption to this picture?
   - This is a good caption. It needs only minor editing to make it an excellent one.
   - The caption contains errors in spelling and capitalization.
   - The caption should not be so much wider than the picture.
   - The caption needs a figure number.

Figure 2: An impassible Chicago Intersection in the January 1964 blizzard

10. The choices below rewrite this caption. Which new caption is best?
   - Example of an NWS station from 1979 when computers were first used (Peoria IL).
   - An example of a weather office in Peoria IL, when the National Weather Service began to use computerzed monitoring in 1979.
   - This picture shows a common example of a a weather monitoring station back in the 1970s.
   - **National Weather Service office at Peoria IL in 1979.**

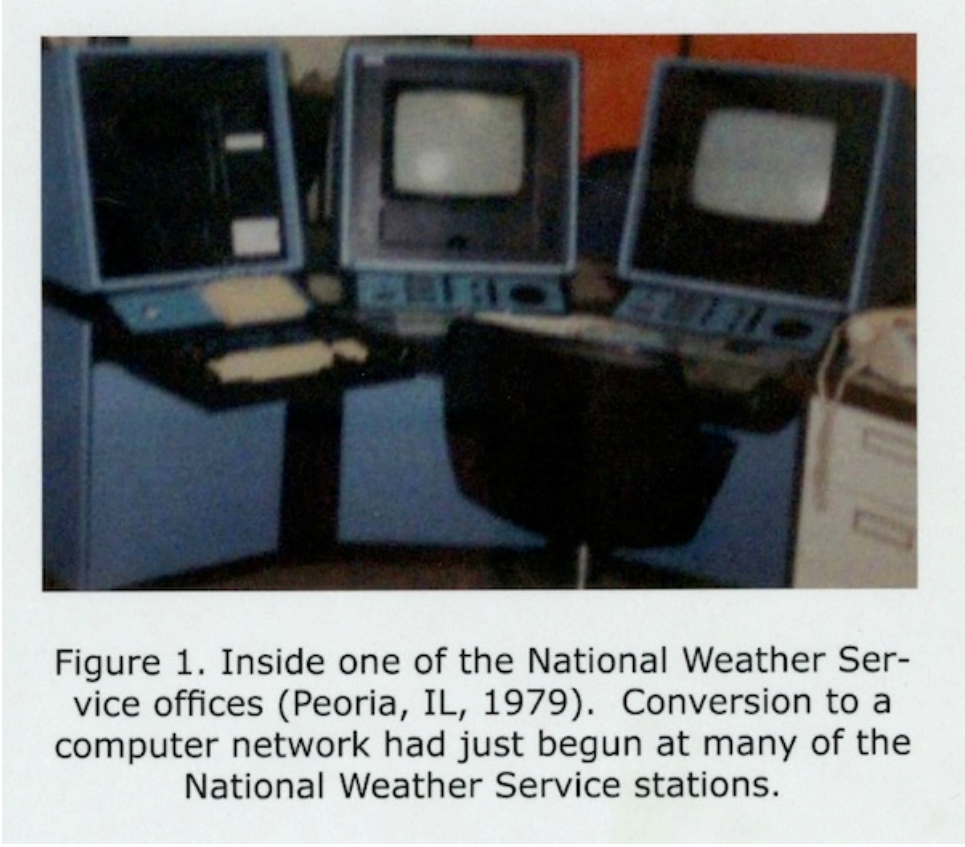
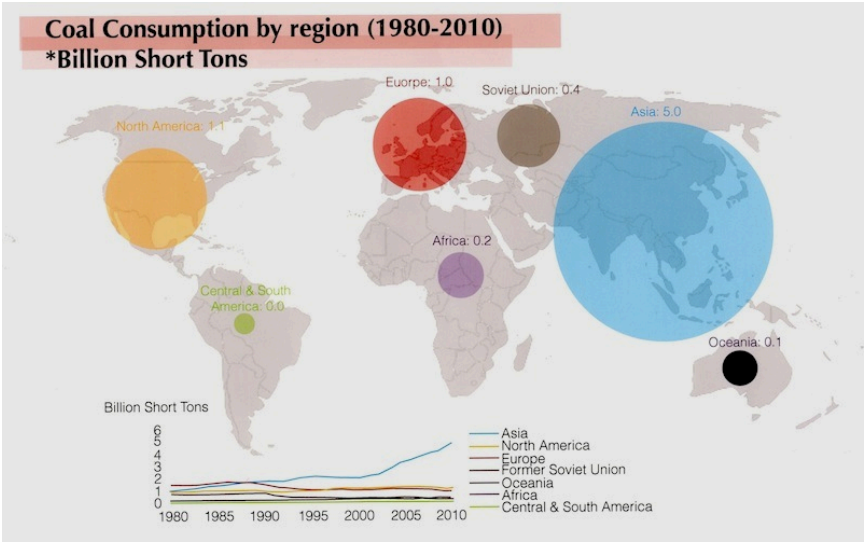


Figure 1. Inside one of the National Weather Service offices (Peoria, IL, 1979). Conversion to a computer network had just begun at many of the National Weather Service stations.

Project Sample Quiz 7: Maps (answers in bold)

1. Proper formatting for maps on the poster includes the following:
   - Each map should have a figure number.
   - Each map should have an explanatory caption.
   - All text on the poster, for maps and other elements, should be computer-generated, not hand-written.
   - Maps should be carefully mounted on poster board.

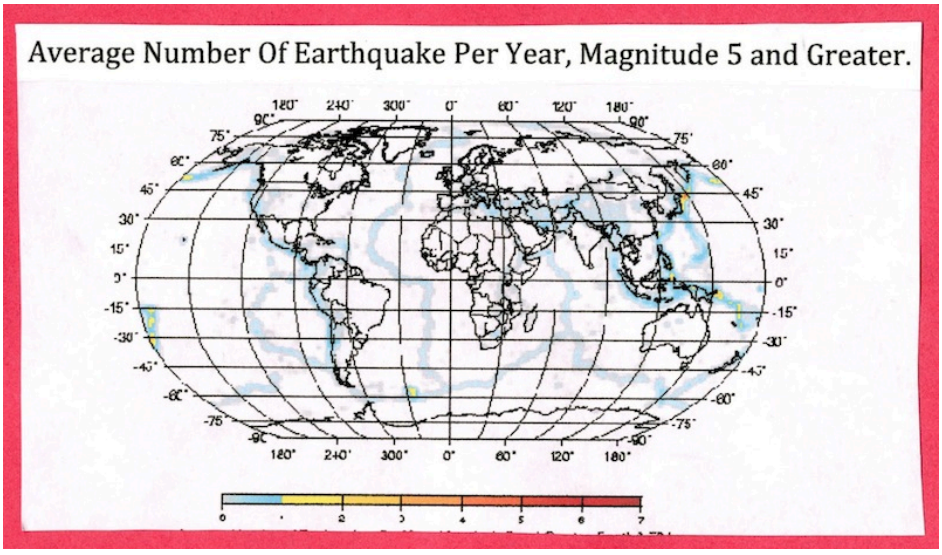
Which formatting requirements does this map satisfy? Check as many as apply.



Has a caption.
Has a figure number.
Edge is even.
Information is printed by computer.
Mounted neatly on posterboard.

2. Proper formatting for maps on the poster includes the following:
   - Each map should have a figure number.
   - Each map should have an explanatory caption.
   - All text on the poster, for maps and other elements, should be computer-generated, not hand-written.
   - Maps should be carefully mounted on poster board.

Which formatting requirements does this map satisfy? Check as many as apply.



Has a caption.
Has a figure number.
Edge is even.
Information is printed by computer.
Mounted neatly on posterboard.

3. Which formatting requirements are satisfied by this map? Check as many as apply.
   - **Has a caption.**
   - **Has a figure number.**
   - **Edge is even.**
   - **Information is printed by computer.**
   - **Mounted neatly on posterboard.**

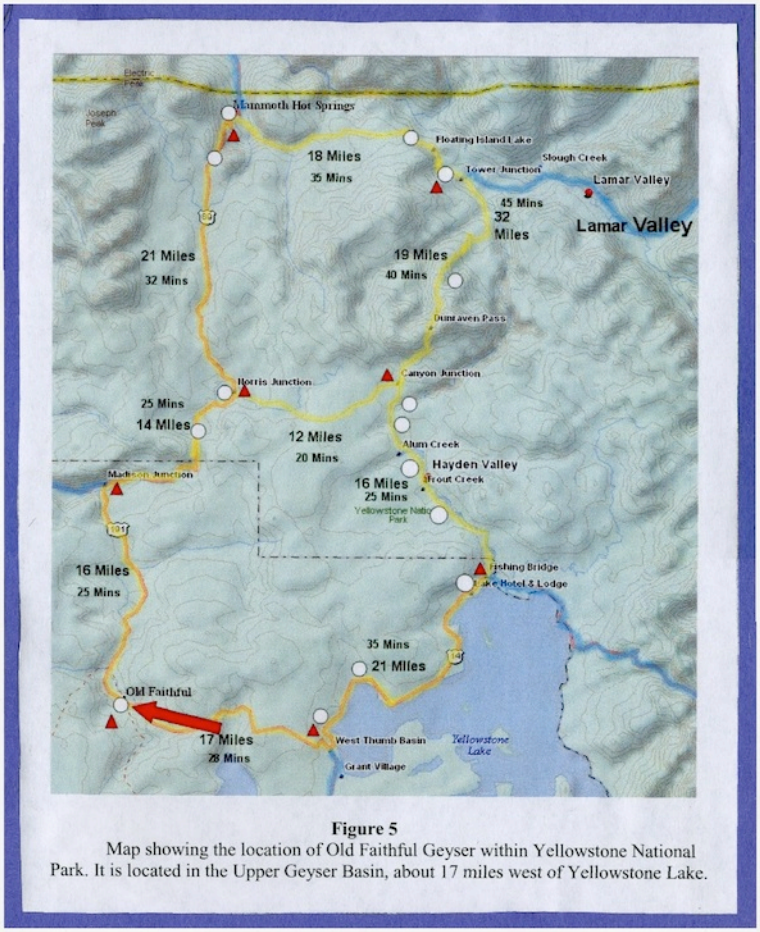
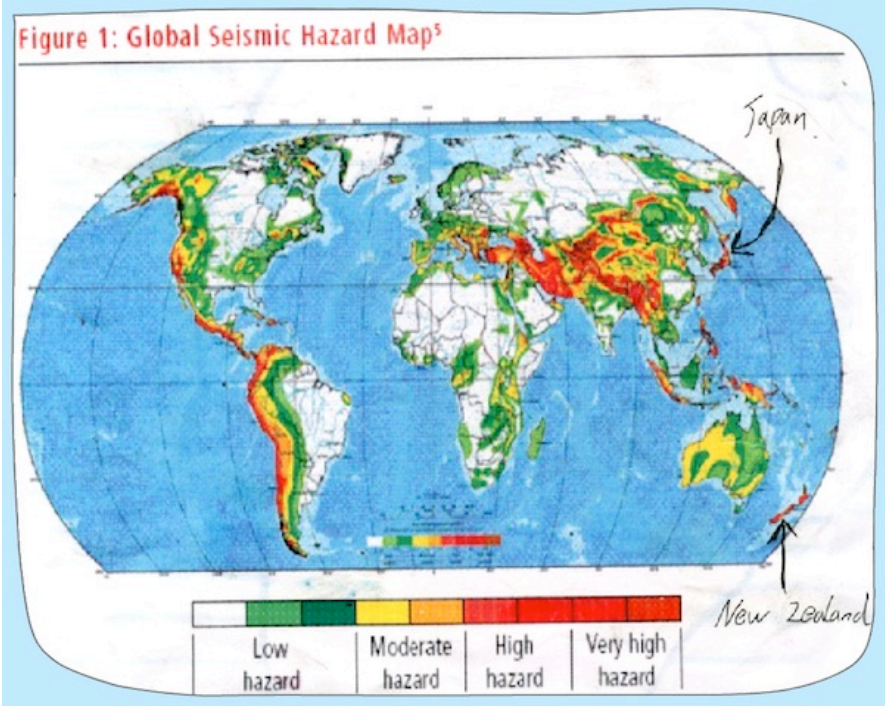


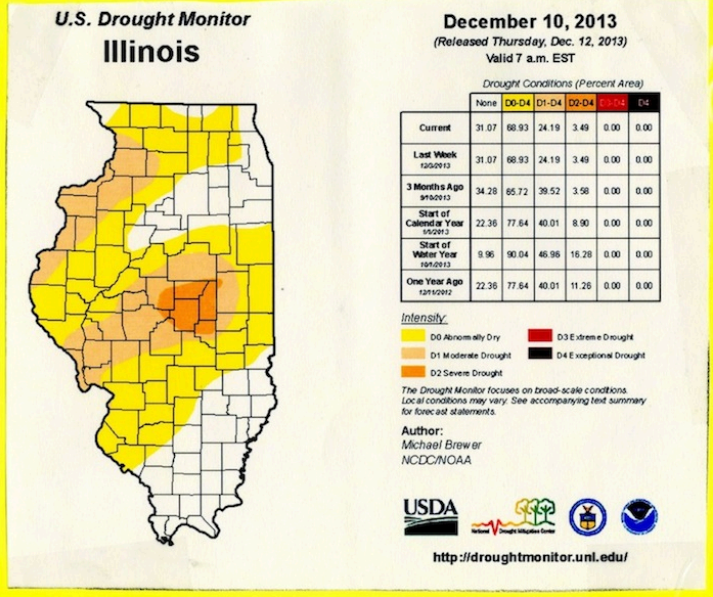
Figure 5
Map showing the location of Old Faithful Geyser within Yellowstone National Park. It is located in the Upper Geyser Basin, about 17 miles west of Yellowstone Lake.

4. Which formatting requirements are satisfied by this map? Check as many as apply.
   - **Has a caption.**
   - **Has a figure number.**
   - Edge is even.
   - Information is printed by computer.
   - **Mounted neatly on posterboard.**



5. Which formatting requirements are satisfied by this map? Check as many as apply.
   - **Has a caption.**
   - **Has a figure number.**
   - **Edge is even.**
   - **Information is printed by computer.**
   - Mounted neatly on posterboard.

Figure 5: Drought Monitor of Illinois 2013

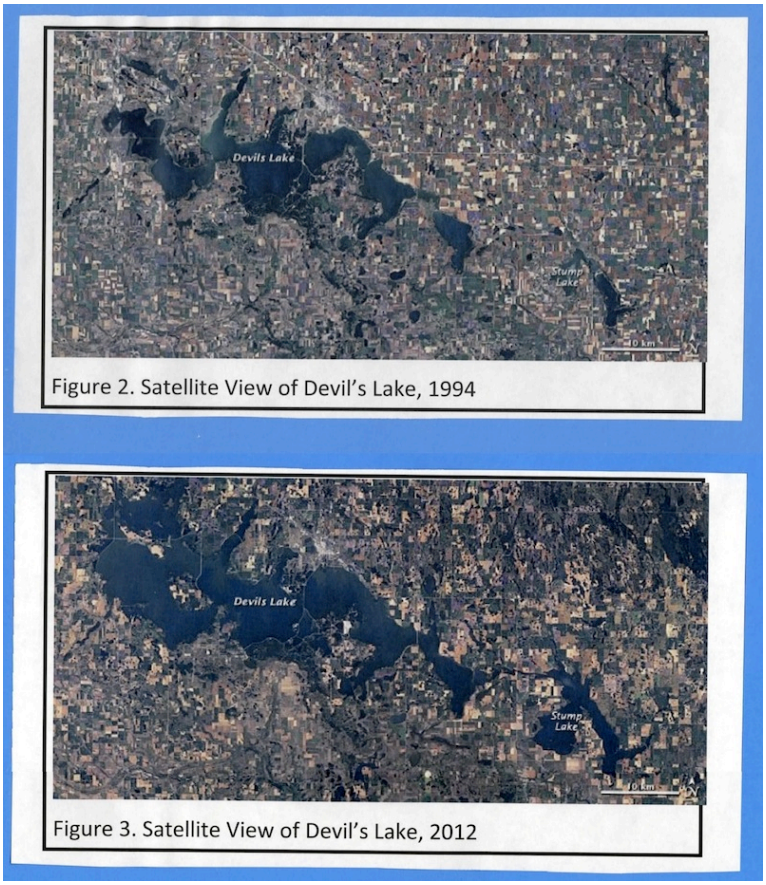


6. These maps are formatted correctly, but they are difficult to interpret. The topic of this poster is the increase in surface elevation of Devil's Lake over the past decade or so.
   Do the maps clearly show the difference in the water elevation (or lake depth) between 1994 and 2012?
   - Yes, the maps clearly show that the lake surface was higher in 2012 than in 1994.
   - **No, it is not really possible to see a difference in elevation in a map view.**

7. This question refers to the same two maps as the previous question. Part of the problem with the maps is their captions. Which choice would be the best way to edit the captions, in order to draw a clearer contrast between the maps?

   Figure 2. Satellite view of Devil's Lake in 1994, when the water surface was ~435 m above sea level and the lake area was ~200 km^2.
   Figure 3. By 2012, the water surface was ~442 m above sea level and the lake area was ~350 km^2.

   Combine the maps into one figure. Caption: Satellite views of Devil's Lake in 1994 (top) and 2012 (bottom). As the water surface elevation increased by ~7 m, lake area increased by over 50%.



8. The topic of the poster with this map is "Discharge along the Vermilion River in Illinois." What is the most important error illustrated by this map?

The background colors show through the paper, which is distracting.

The text in the key is blurry and hard to read.

The map shows soil conditions in the drainage basin.

The word "condition" should not be capitalized in the caption.

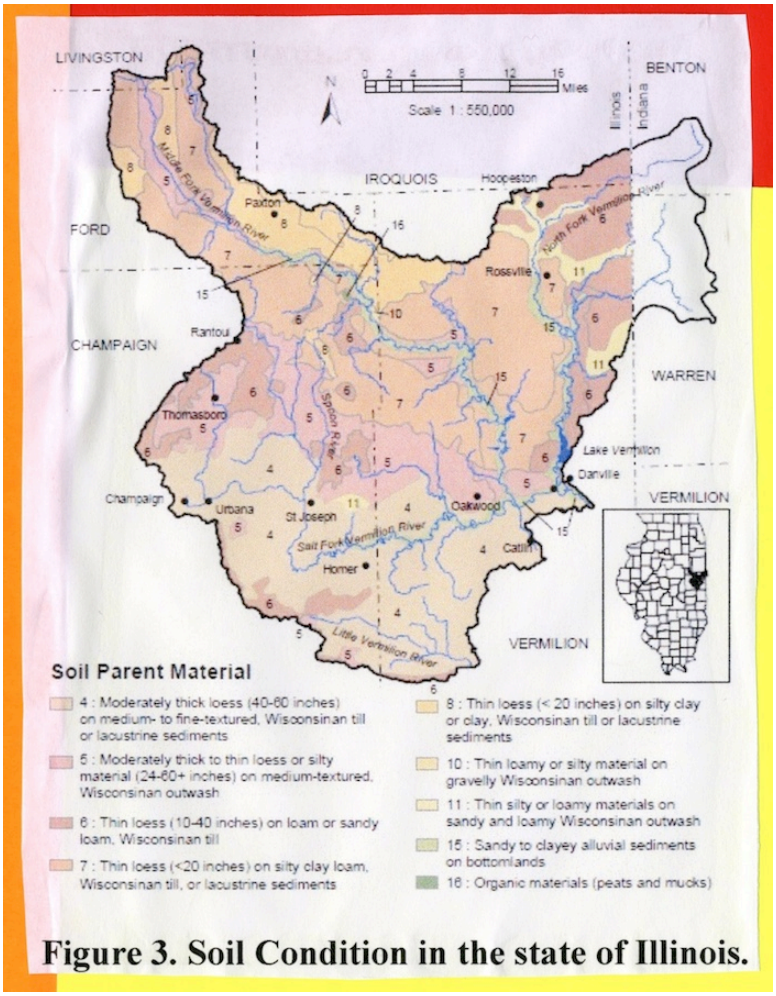


Figure 3. Soil Condition in the state of Illinois.

9. The caption on this map has awkward word arrangement and several grammatical errors. Which new caption is the best, in terms of its length and the amount of information presented?

Map of Illinois with approximate locations of quarries, which are numbered from 1 (farthest north) to 24 (farthest south).

Quarries considered in this project are shown in their approximate positions by labels numbered starting from the north.

Locations of quarries 1–24, numbered from north to south.

Locations of quarries included in this project. Quarries are numbered from north (1) to south (24).

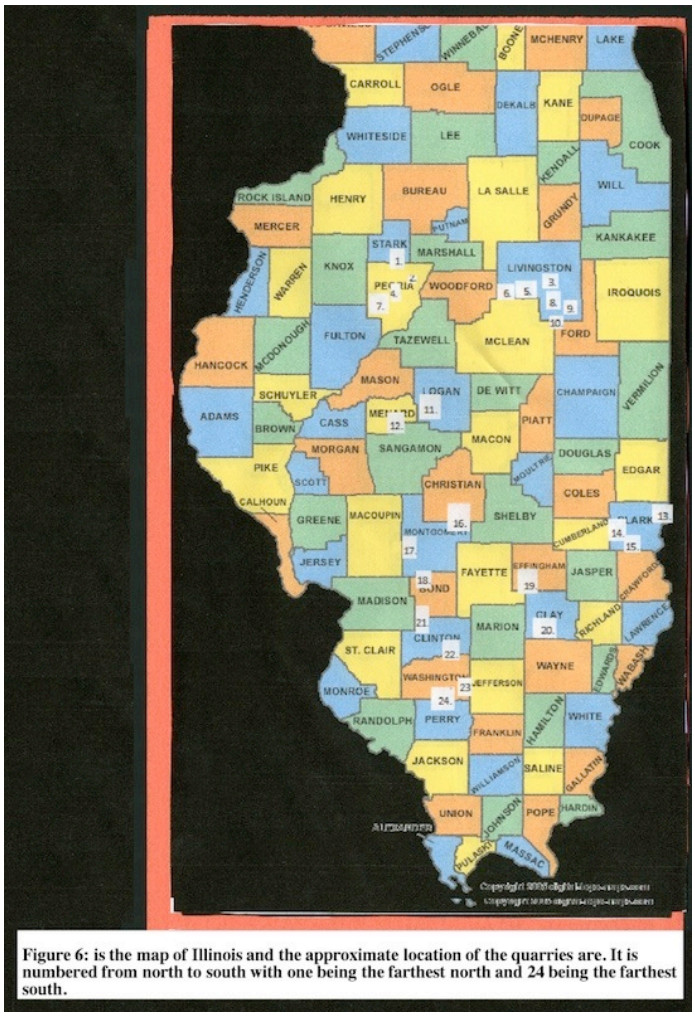


Figure 6: is the map of Illinois and the approximate location of the quarries are. It is numbered from north to south with one being the farthest north and 24 being the farthest south.

Figure 6: is the map of Illinois and the approximate location of the quarries are. It is numbered from north to south with one being the farthest north and 24 being the farthest south.

10. The poster with this map analyzes measurements of sea level at Key West over the past 100 years. Evaluate this map, based on the requirements illustrated in previous questions.

(**Short answer question with any answer accepted**)

Figure 1. Florida Keys map

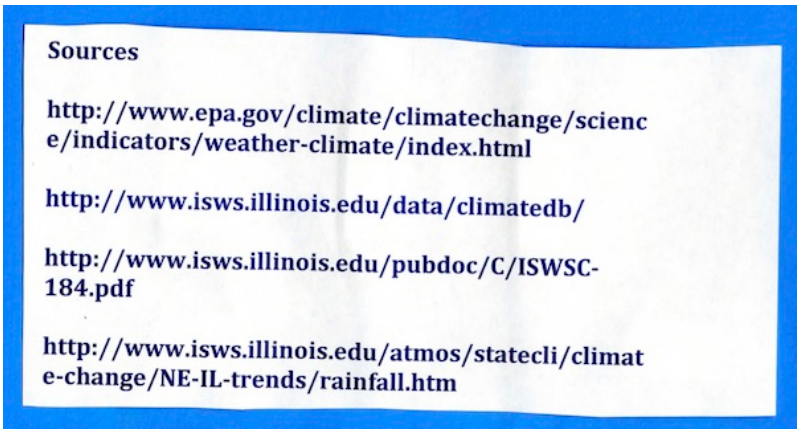
Poster Sample Quiz 8: References (answers in bold)

1. Proper formatting for references on the poster includes the following:
   - A complete Internet reference includes a brief title and the entire URL. Enough information must be provided for the reader to access the website.
   - Article references should include title, author, journal name, volume number, and page(s).
   - Three references are required for a rating of "Good" on this section of the poster.
   - All text on the poster, for references and other elements, should be computer-generated not hand-written.

   The reference list should be carefully mounted on poster board.

   Which formatting requirements does this reference list satisfy? Check as many as apply.

   All references provide complete information.
   Reference list is mounted neatly on poster board.
   At least three references are included.
   Information is printed by computer.
   List includes both Internet and printed resources.


Sources

http://www.epa.gov/climate/climatechange/science/indicators/weather-climate/index.html

http://www.isws.illinois.edu/data/climatedb/

http://www.isws.illinois.edu/pubdoc/C/ISWSC-184.pdf

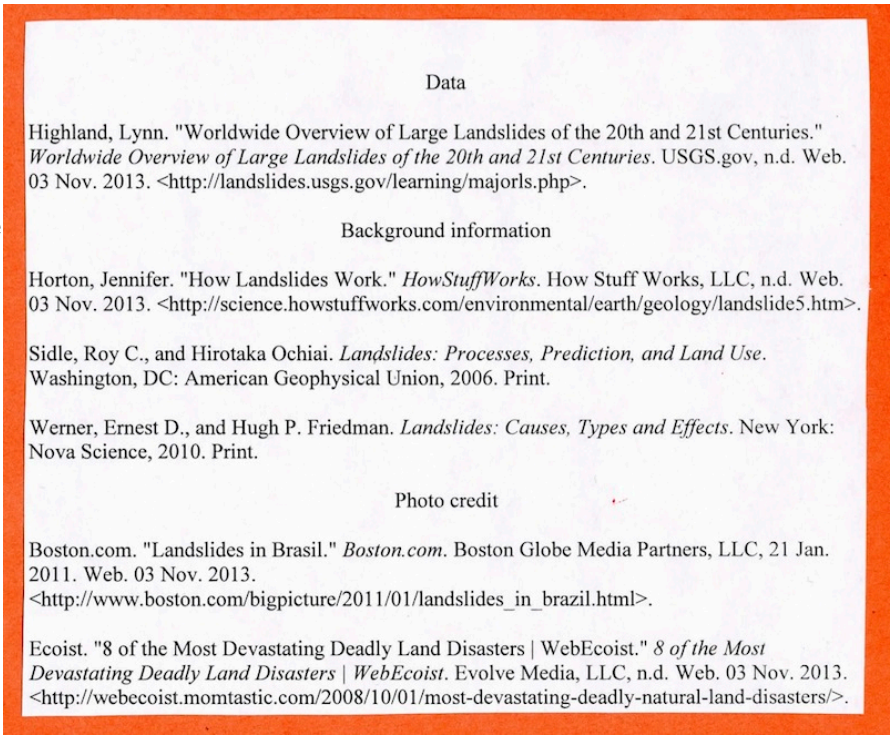
http://www.isws.illinois.edu/atmos/statecli/climate-change/NE-IL-trends/rainfall.htm

2. Proper formatting for references on the poster includes the following:
   - A complete Internet reference includes a brief title and the entire URL. Enough information must be provided for the reader to access the website.
   - Article references should include title, author, journal name, volume number, and page(s).
   - Three references are required for a rating of "Good" on this section of the poster.
   - All text on the poster, for references and other elements, should be computer-generated not hand-written.

   The reference list should be carefully mounted on poster board.

   Which formatting requirements does this reference list satisfy? Check as many as apply.

   All references provide complete information.
   Reference list is mounted neatly on poster board.
   At least three references are included.
   Information is printed by computer.
   List includes both Internet and printed resources.


Data

Highland, Lynn. "Worldwide Overview of Large Landslides of the 20th and 21st Centuries." *Worldwide Overview of Large Landslides of the 20th and 21st Centuries*. USGS.gov, n.d. Web. 03 Nov. 2013. <http://landslides.usgs.gov/learning/majorls.php>.

Background information

Horton, Jennifer. "How Landslides Work." *HowStuffWorks*. How Stuff Works, LLC, n.d. Web. 03 Nov. 2013. <http://science.howstuffworks.com/environmental/earth/geology/landslide5.htm>.

Sidle, Roy C., and Hirotaka Ochiai. *Landslides: Processes, Prediction, and Land Use*. Washington, DC: American Geophysical Union, 2006. Print.

Werner, Ernest D., and Hugh P. Friedman. *Landslides: Causes, Types and Effects*. New York: Nova Science, 2010. Print.

Photo credit

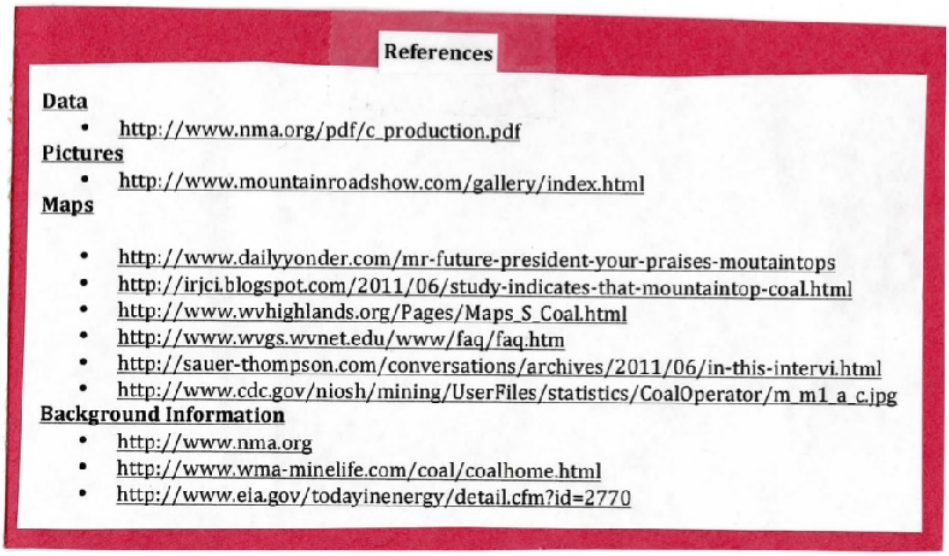
Boston.com. "Landslides in Brasil." *Boston.com*. Boston Globe Media Partners, LLC, 21 Jan. 2011. Web. 03 Nov. 2013. <http://www.boston.com/bigpicture/2011/01/landslides_in_brazil.html>.

Ecoist. "8 of the Most Devastating Deadly Land Disasters | WebEcoist." *8 of the Most Devastating Deadly Land Disasters | WebEcoist*. Evolve Media, LLC, n.d. Web. 03 Nov. 2013. <http://webecoist.momtastic.com/2008/10/01/most-devastating-deadly-natural-land-disasters/>.

3. Proper formatting for references on the poster includes the following:
   - A complete Internet reference includes a brief title and the entire URL. Enough information must be provided for the reader to access the website.
   - Article references should include title, author, journal name, volume number, and page(s).
   - Three references are required for a rating of "Good" on this section of the poster.
   - All text on the poster, for references and other elements, should be computer-generated not hand-written.

   The reference list should be carefully mounted on poster board.
   Which formatting requirements does this reference list satisfy? Check as many as apply.

   All references provide complete information.
   Reference list is mounted neatly on poster board.
   At least three references are included.
   Information is printed by computer.
   List includes both Internet and printed resources.



References

Data
- http://www.nma.org/pdf/c_production.pdf

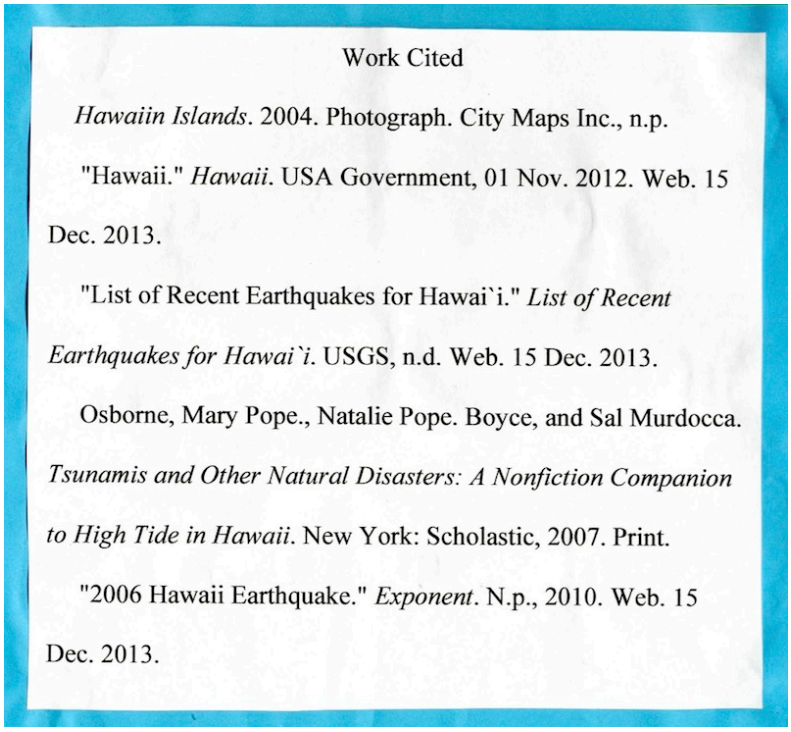
Pictures
- http://www.mountainroadshow.com/gallery/index.html

Maps
- http://www.dailyyonder.com/mr-future-president-your-praises-moutaintops
- http://irjci.blogspot.com/2011/06/study-indicates-that-mountaintop-coal.html
- http://www.wvhighlands.org/Pages/Maps_S_Coal.html
- http://www.wvgs.wvnet.edu/www/faq/faq.htm
- http://sauer-thompson.com/conversations/archives/2011/06/in-this-intervi.html
- http://www.cdc.gov/niosh/mining/UserFiles/statistics/CoalOperator/m_m1_a_c.jpg

Background Information
- http://www.nma.org
- http://www.wma-minelife.com/coal/coalhome.html
- http://www.eia.gov/todayinenergy/detail.cfm?id=2770

4. Which formatting requirements does this reference list satisfy? Check as many as apply.

   All references provide complete information.
   Reference list is mounted neatly on poster board.
   At least three references are included.
   Information is printed by computer.
   List includes both Internet and printed resources.



Work Cited

Hawaiin Islands. 2004. Photograph. City Maps Inc., n.p.

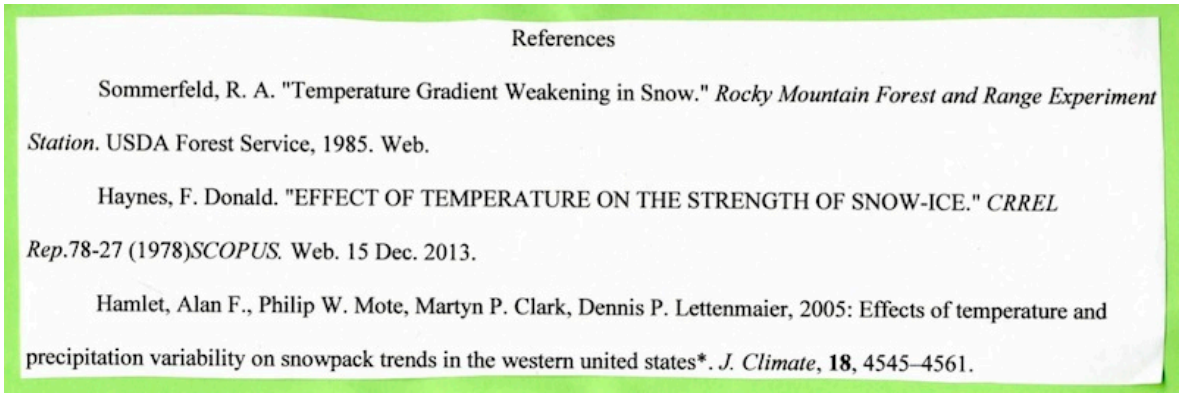
"Hawaii." *Hawaii*. USA Government, 01 Nov. 2012. Web. 15 Dec. 2013.

"List of Recent Earthquakes for Hawai`i." *List of Recent Earthquakes for Hawai`i*. USGS, n.d. Web. 15 Dec. 2013.

Osborne, Mary Pope., Natalie Pope. Boyce, and Sal Murdocca. *Tsunamis and Other Natural Disasters: A Nonfiction Companion to High Tide in Hawaii*. New York: Scholastic, 2007. Print.

"2006 Hawaii Earthquake." *Exponent*. N.p., 2010. Web. 15 Dec. 2013.

5. Which formatting requirements does this reference list satisfy? Check as many as apply.
   All references provide complete information.
   Reference list is mounted neatly on poster board.
   At least three references are included.
   Information is printed by computer.
   List includes both Internet and printed resources.



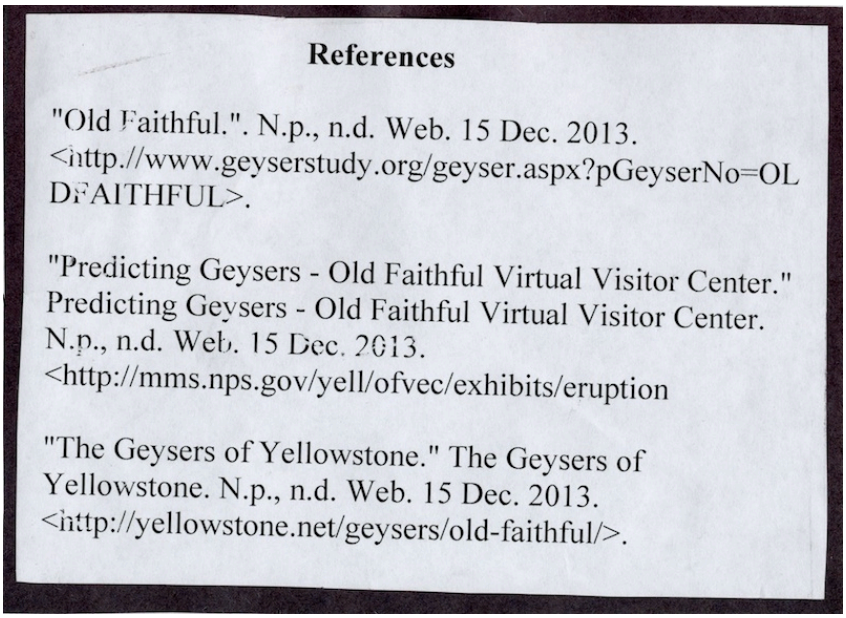
References

Sommerfeld, R. A. "Temperature Gradient Weakening in Snow." *Rocky Mountain Forest and Range Experiment Station*. USDA Forest Service, 1985. Web.

Haynes, F. Donald. "EFFECT OF TEMPERATURE ON THE STRENGTH OF SNOW-ICE." *CRREL Rep.*78-27 (1978)*SCOPUS*. Web. 15 Dec. 2013.

Hamlet, Alan F., Philip W. Mote, Martyn P. Clark, Dennis P. Lettenmaier, 2005: Effects of temperature and precipitation variability on snowpack trends in the western united states*. *J. Climate*, **18**, 4545–4561.

6. Which of the following criticisms is the most serious flaw for this reference list?
   The list should specifiy which sources are for data, pictures, or other information.
   There are only three references, and they all come from the Internet.
   No website title is given for the online references.
   It is hard to see which reference is the data source.



References

"Old Faithful.". N.p., n.d. Web. 15 Dec. 2013. <http://www.geyserstudy.org/geyser.aspx?pGeyserNo=OLDFAITHFUL>.

"Predicting Geysers - Old Faithful Virtual Visitor Center." Predicting Geysers - Old Faithful Virtual Visitor Center. N.p., n.d. Web. 15 Dec. 2013. <http://mms.nps.gov/yell/ofvec/exhibits/eruption

"The Geysers of Yellowstone." The Geysers of Yellowstone. N.p., n.d. Web. 15 Dec. 2013. <http://yellowstone.net/geysers/old-faithful/>.

7. This reference list would be scored as "Poor." What are the reasons for this rating?

There is no data source listed.
***World Almanac* is too old.**
References are not primary sources.
The list is poorly formatted.

References:

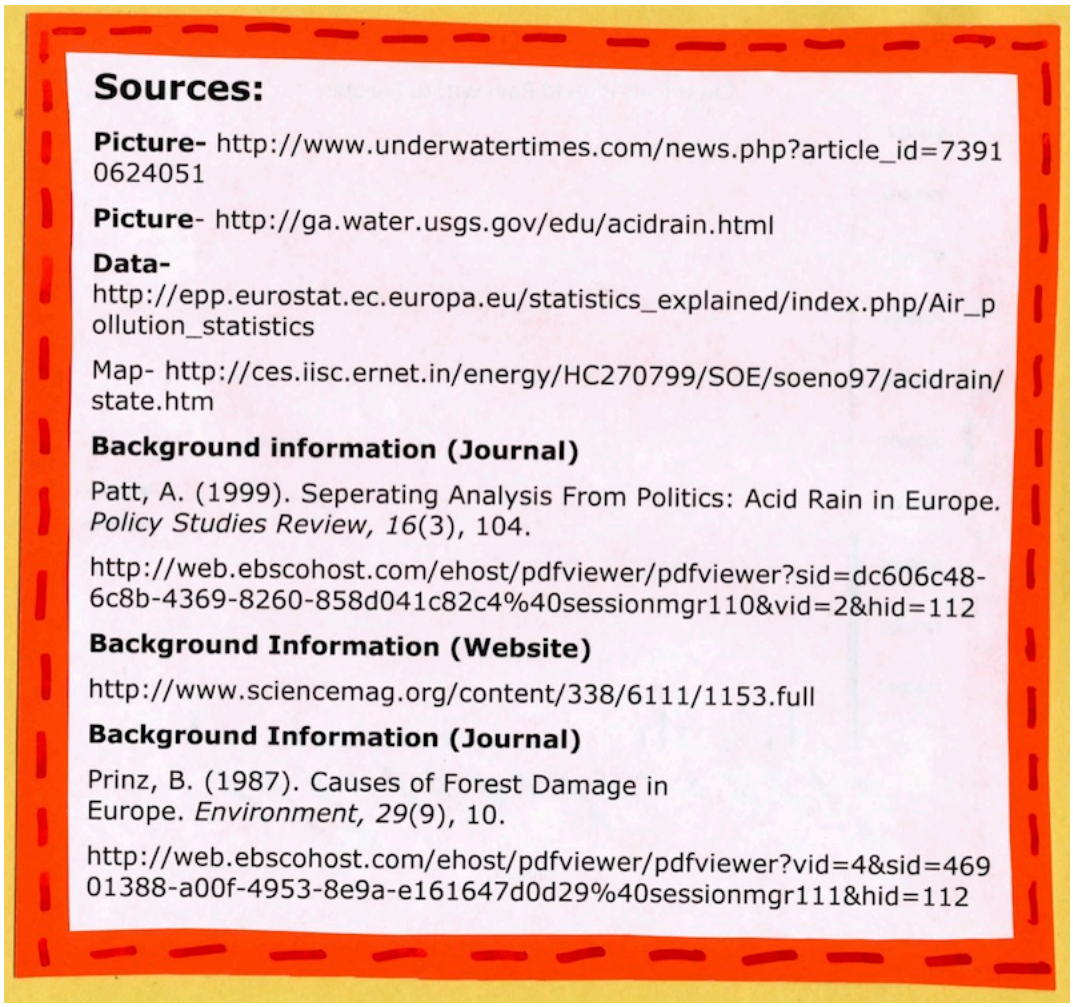
The World Almanac, 1989.

Visual Photos. N.p., n.d. Web. 16 Nov. 2013.

"HowStuffWorks "Maps of United States Annual Rainfall""
HowStuffWorks. N.p., n.d. Web. 18 Nov. 2013.

8. This reference list would be rated as "Excellent." Which choices help explain why it is rated so highly?

All sources are reliable: governmental, academic, or professional.
Each reference is complete with title and URL.
There are more than three references.
References are grouped according to type: data, images, information.



Sources:

Picture- http://www.underwatertimes.com/news.php?article_id=7391 0624051

Picture- http://ga.water.usgs.gov/edu/acidrain.html

Data-
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Air_p ollution_statistics

Map- http://ces.iisc.ernet.in/energy/HC270799/SOE/soeno97/acidrain/ state.htm

Background information (Journal)

Patt, A. (1999). Seperating Analysis From Politics: Acid Rain in Europe. *Policy Studies Review, 16*(3), 104.

http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=dc606c48-6c8b-4369-8260-858d041c82c4%40sessionmgr110&vid=2&hid=112

Background Information (Website)

http://www.sciencemag.org/content/338/6111/1153.full

Background Information (Journal)

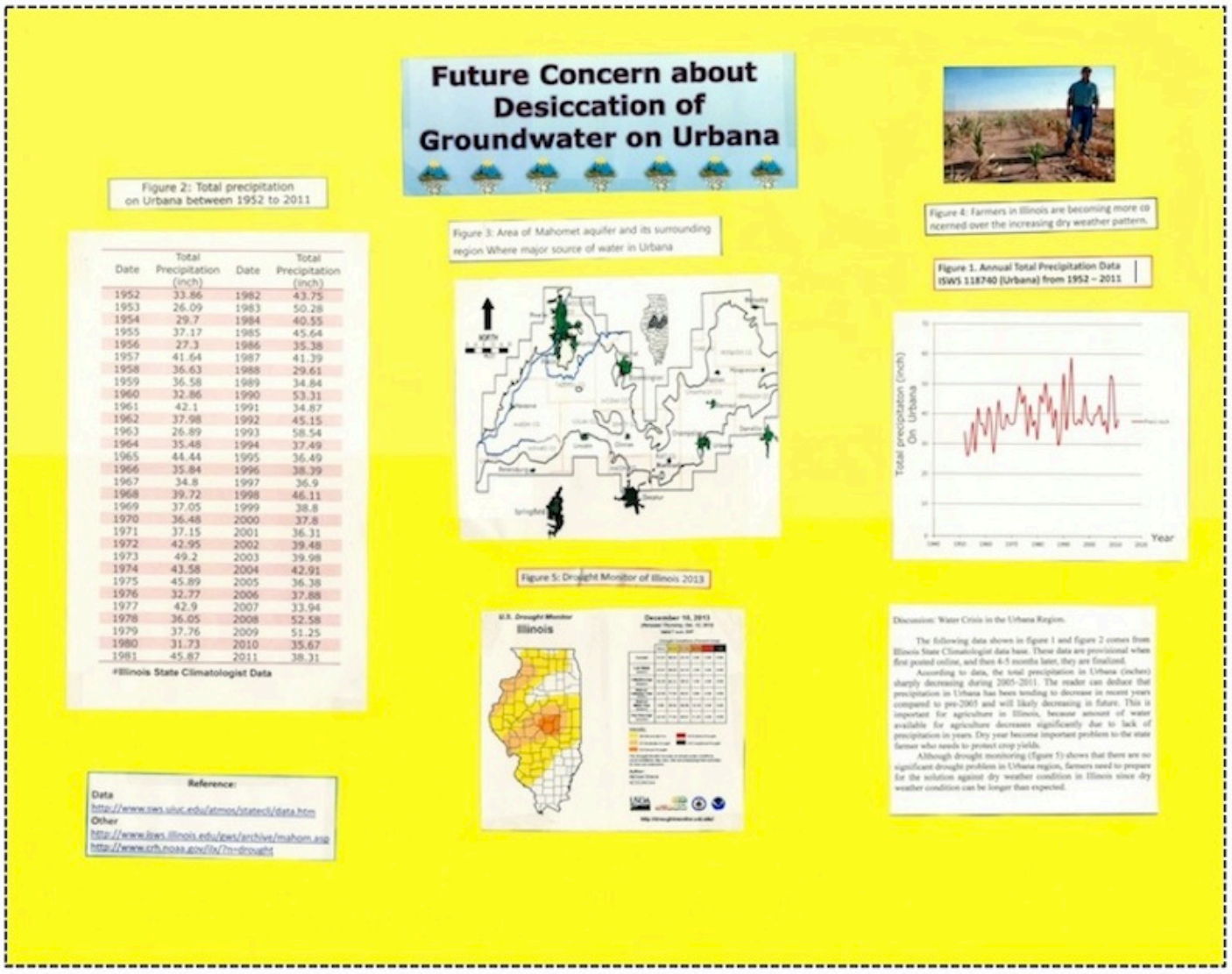
Prinz, B. (1987). Causes of Forest Damage in Europe. *Environment, 29*(9), 10.

http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=469 01388-a00f-4953-8e9a-e161647d0d29%40sessionmgr111&hid=112

Poster Sample Quiz 9: Practice Evaluations (answers in bold)

1. Which required elements are present in this poster? Check as many as apply. Note: The dashed line marks the edge of the poster board. Click here for a larger image (opens in new window).

An informative title	**At least one picture**
Table with 50 data points	**At least one map**
A 1-page summary	**At least one graph**
Reference list with at least 3 sources	**Uses standard poster board (22x28 inches, 56x71 cm)**



Date	Total Precipitation (inch)	Date	Total Precipitation (inch)
1952	33.86	1982	43.75
1953	26.09	1983	50.28
1954	29.7	1984	40.55
1955	37.17	1985	45.64
1956	27.3	1986	35.38
1957	41.64	1987	41.39
1958	36.63	1988	29.61
1959	36.58	1989	34.84
1960	32.86	1990	53.31
1961	42.1	1991	34.87
1962	37.98	1992	45.15
1963	26.89	1993	58.54
1964	35.48	1994	37.49
1965	44.44	1995	36.49
1966	35.84	1996	38.39
1967	34.8	1997	36.9
1968	39.72	1998	46.11
1969	37.05	1999	38.8
1970	36.48	2000	37.8
1971	37.15	2001	36.31
1972	42.95	2002	39.48
1973	49.2	2003	39.98
1974	43.58	2004	42.91
1975	45.89	2005	36.38
1976	32.77	2006	37.88
1977	42.9	2007	33.94
1978	36.05	2008	52.58
1979	37.76	2009	51.25
1980	31.73	2010	35.67
1981	45.87	2011	38.31

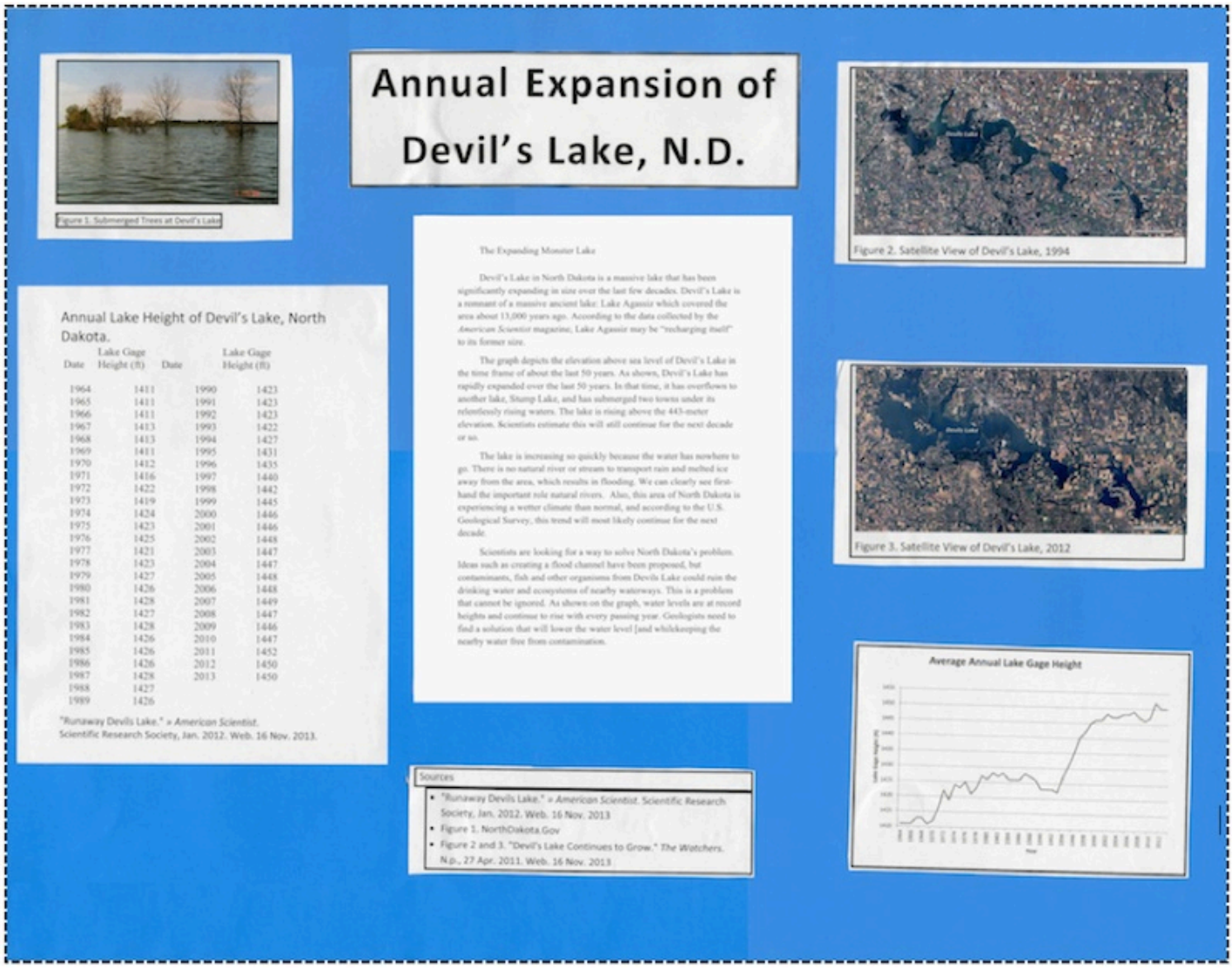
#Illinois State Climatologist Data

2. What is the major error on this poster?

Separate pieces are not mounted evenly on the poster board.
There is too much blank space.
The graph is not well formatted.
The summary is too short.
There are no figure numbers

3. Which required elements are present in this poster? Check as many as apply. Note: The dashed line marks the edge of the poster board. Click here for a larger image (opens in new window).

An informative title
Table with 50 data points
A 1-page summary
Reference list with at least 3 sources
At least one picture
At least one map
At least one graph
Uses standard poster board (22x28 inches, 56x71 cm)

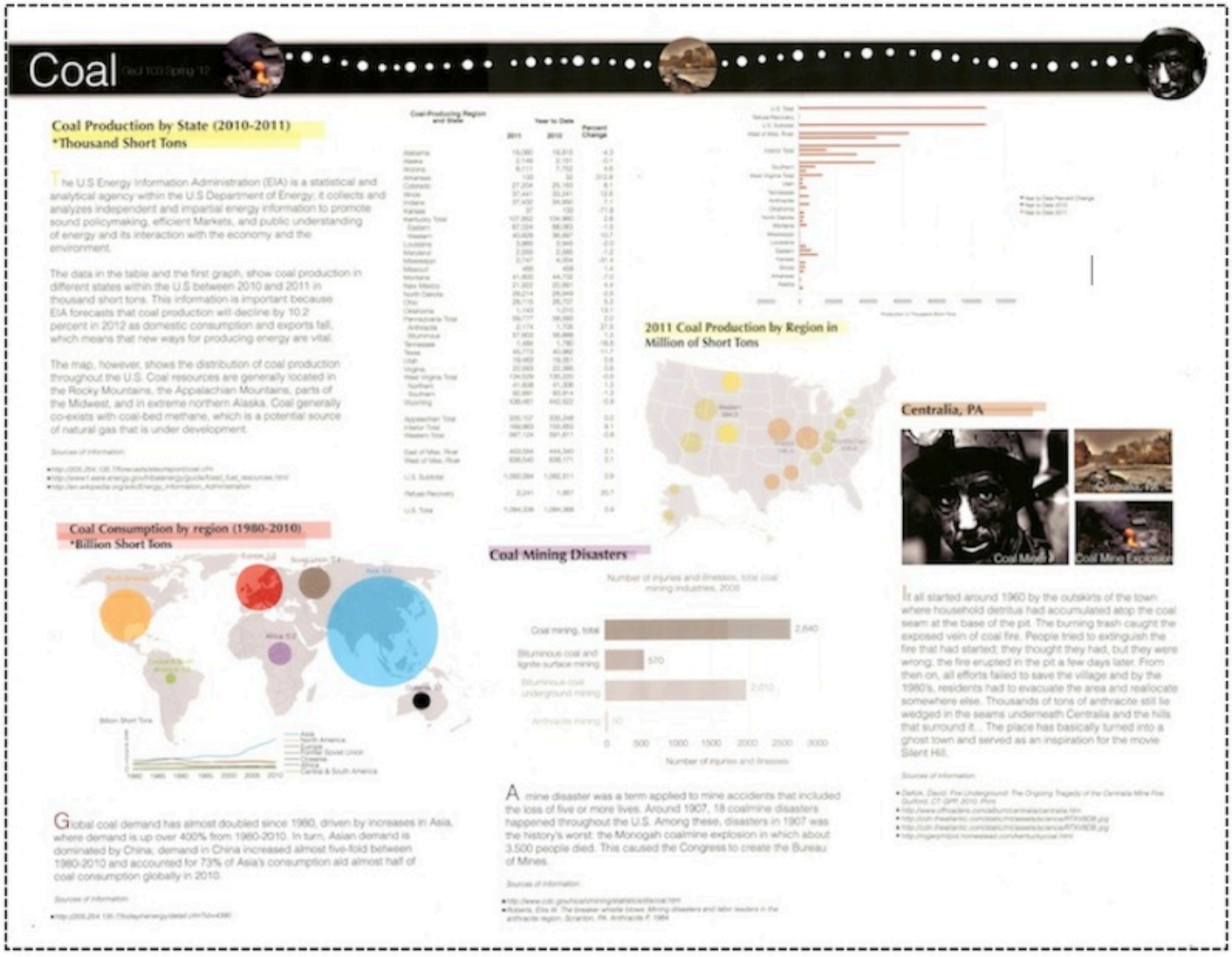


4. What is the major error on this poster?

The graph should use separate data markers, not connected by a smoothed line.
Information is not well organized.
Individual pieces are mounted unevenly on the poster board.
There is no location map.
There are no figure numbers.

5. Which required elements are present in this poster? Check as many as apply. Note: The dashed line marks the edge of the poster board. Click here for a larger image (opens in new window).

An informative title	**At least one picture**
Table with 50 data points	**At least one map**
A 1-page summary	**At least one graph**
Reference list with at least 3 sources	**Uses standard poster board (22x28 inches, 56x71 cm)**

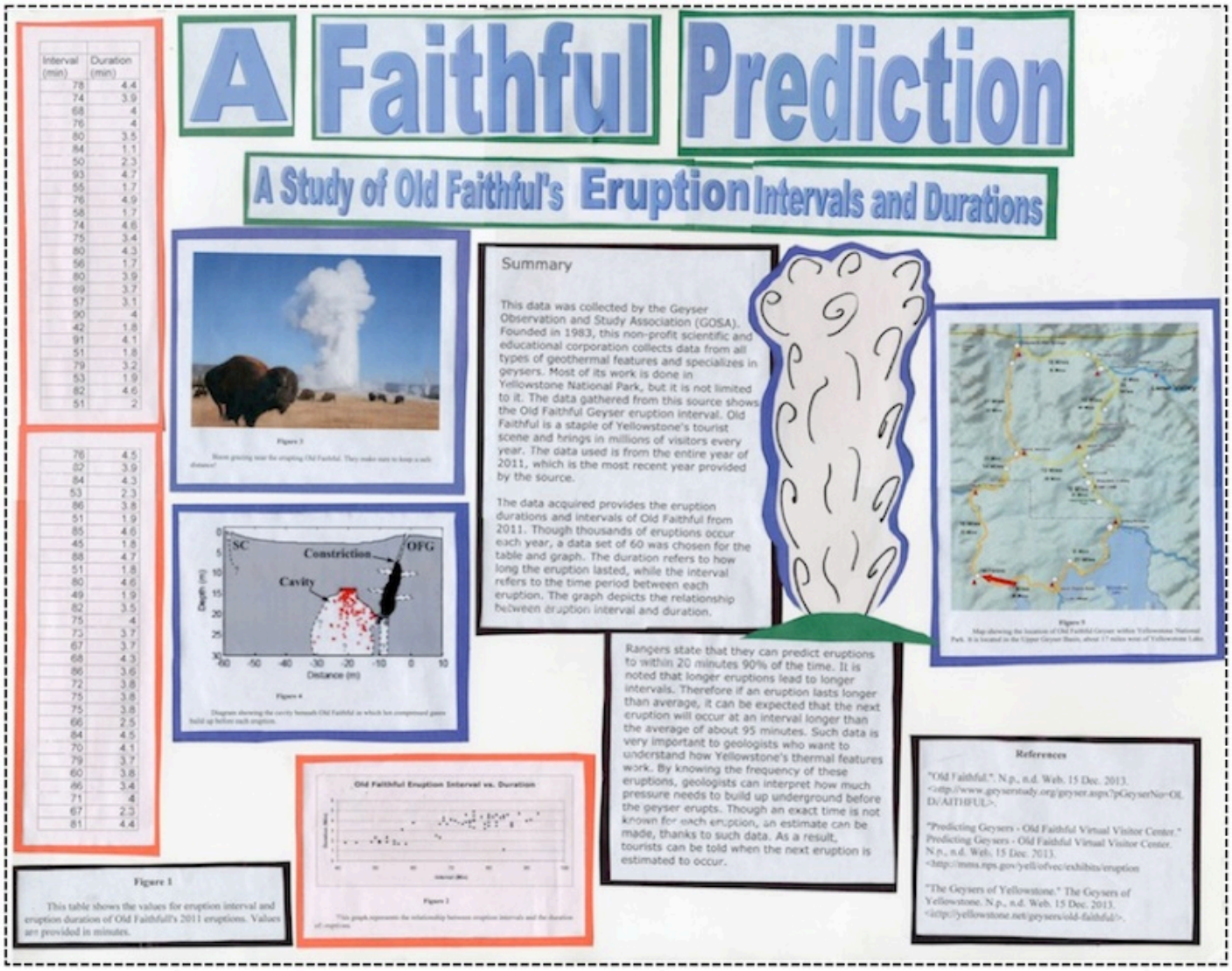


6. What is the major error on this poster?

There are no figure numbers.
Information is not well organized.
There is not much color contrast, so it is hard to read.
Individual pieces are mounted unevenly on the poster board.
Sources are cited as part of the figure captions, instead of on a single list.

7. Which required elements are present in this poster? Check as many as apply. Note: The dashed line marks the edge of the poster board. Click here for a larger image (opens in new window).

An informative title
Table with 50 data points
A 1-page summary
Reference list with at least 3 sources
At least one picture
At least one map
At least one graph
Uses standard poster board (22x28 inches, 56x71 cm)



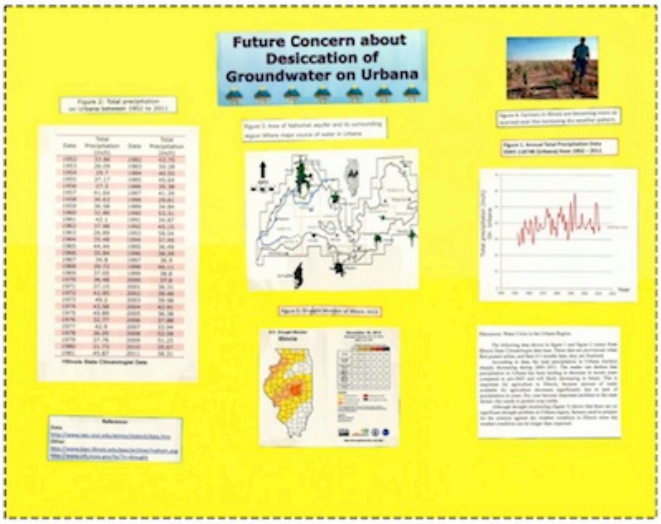
8. What is the main error on this poster?

The summary does not refer to each figure.
The title is too large.
The table should not be in two separate pieces.
Individual pieces are mounted unevenly on the poster board.
Information is not well organized.

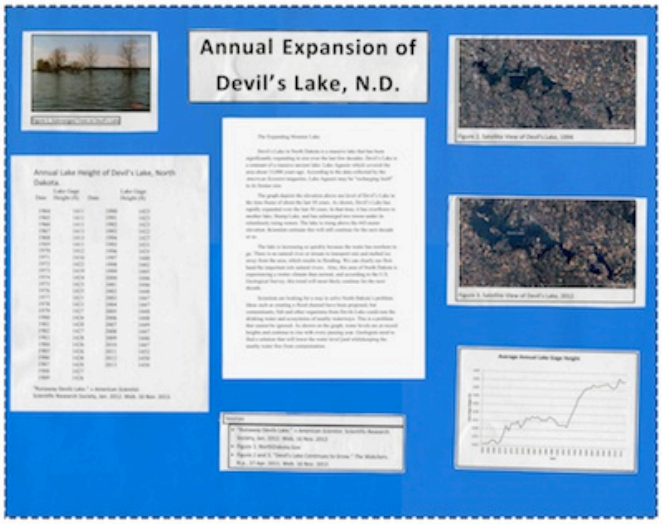
9. Which of these two posters do you think is better overall? Note: The dashed lines indicate the edge of the poster board.

(Either answer is acceptable.)

Poster A



Poster B



10. Briefly explain your choice from question #9.

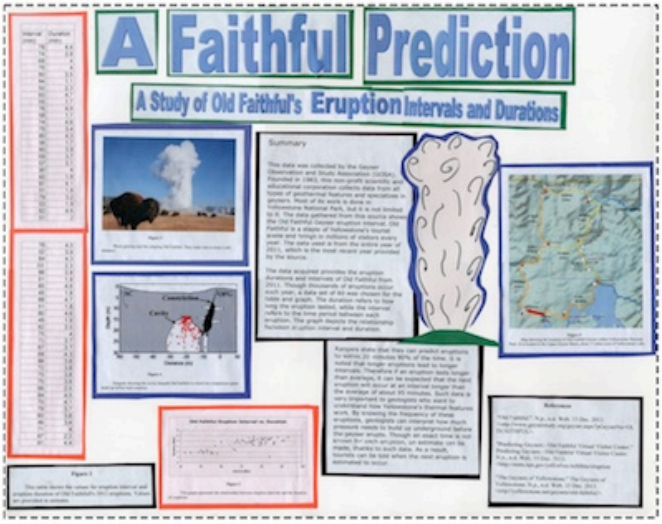
(Short answer question with any answer accepted)

11. Which of these two posters do you think is better overall? Note: The dashed lines indicate the edge of the poster board.

(Either answer is acceptable.)

Poster A

Poster B



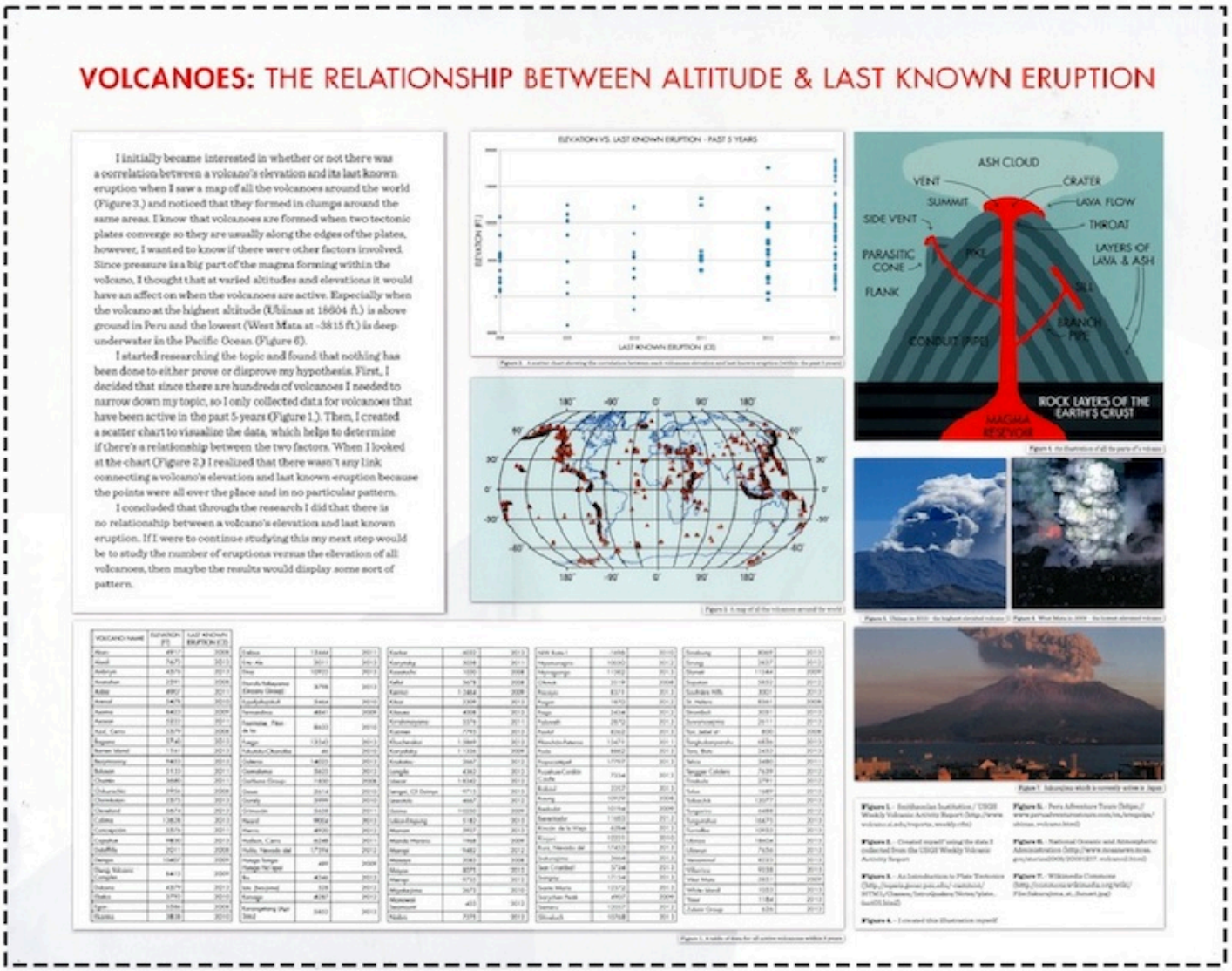
12. Briefly explain your choice from question #11.

(Short answer question with any answer accepted)

Poster Sample Quiz 10: Practice Evaluations (answers in bold)

1. Which required elements are present in this poster? Check as many as apply. Note: The dashed line marks the edge of the poster board. Click here for a larger image (opens in new window).

An informative title
Table with 50 data points
A 1-page summary
Reference list with at least 3 sources
At least one picture
At least one map
At least one graph
Uses standard poster board (22x28 inches, 56x71 cm)

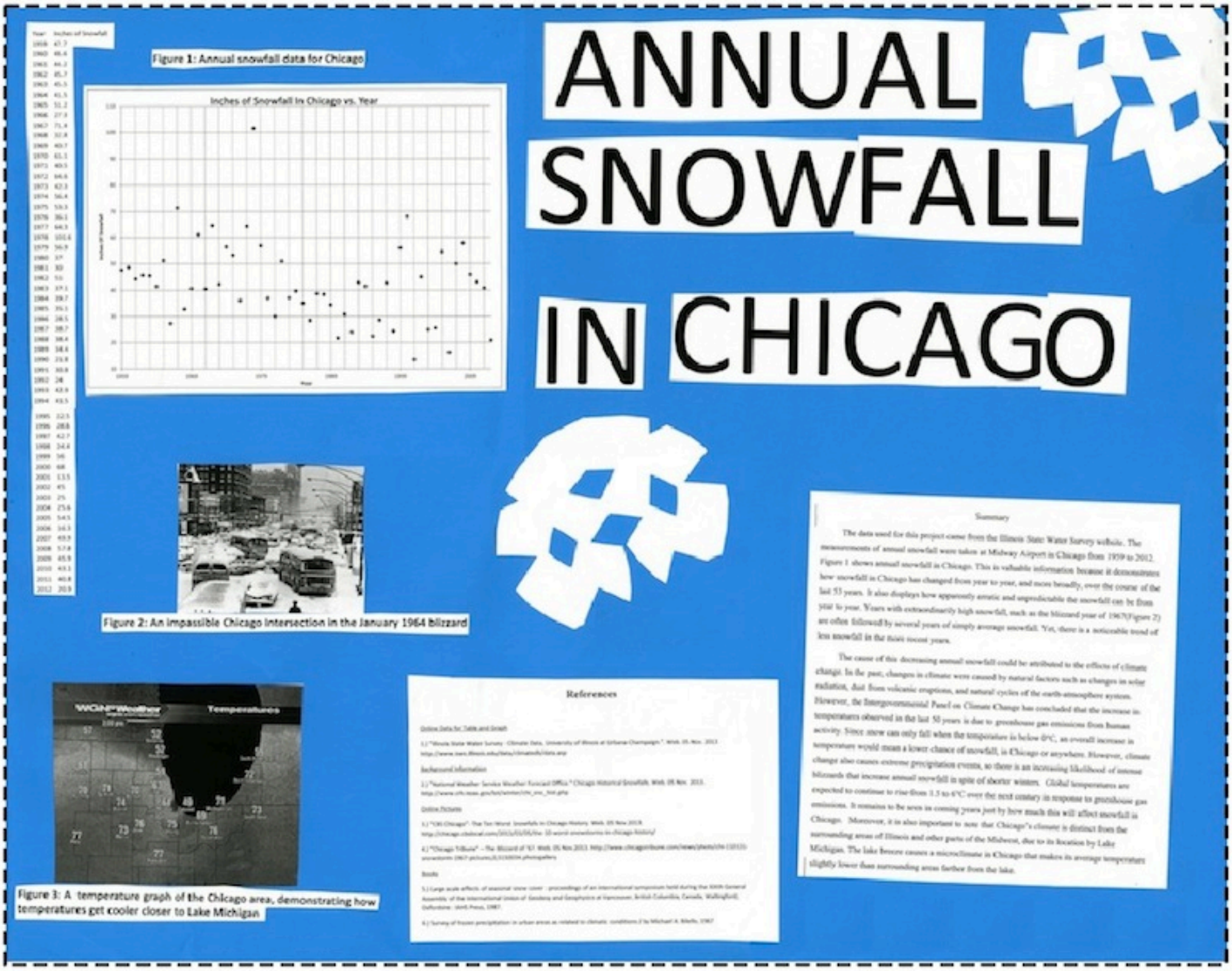


2. What is the major flaw of this poster?

The graph uses default formatting.
The summary contains many grammatical errors.
The title uses an ampersand sign (&).
The topic (or hypothesis) is not logical.

3. Which required elements are present in this poster? Check as many as apply. Note: The dashed line marks the edge of the poster board. Click here for a larger image (opens in new window).

An informative title	**At least one picture**
Table with 50 data points	**At least one map**
A 1-page summary	**At least one graph**
Reference list with at least 3 sources	**Uses standard poster board (22x28 inches, 56x71 cm)**

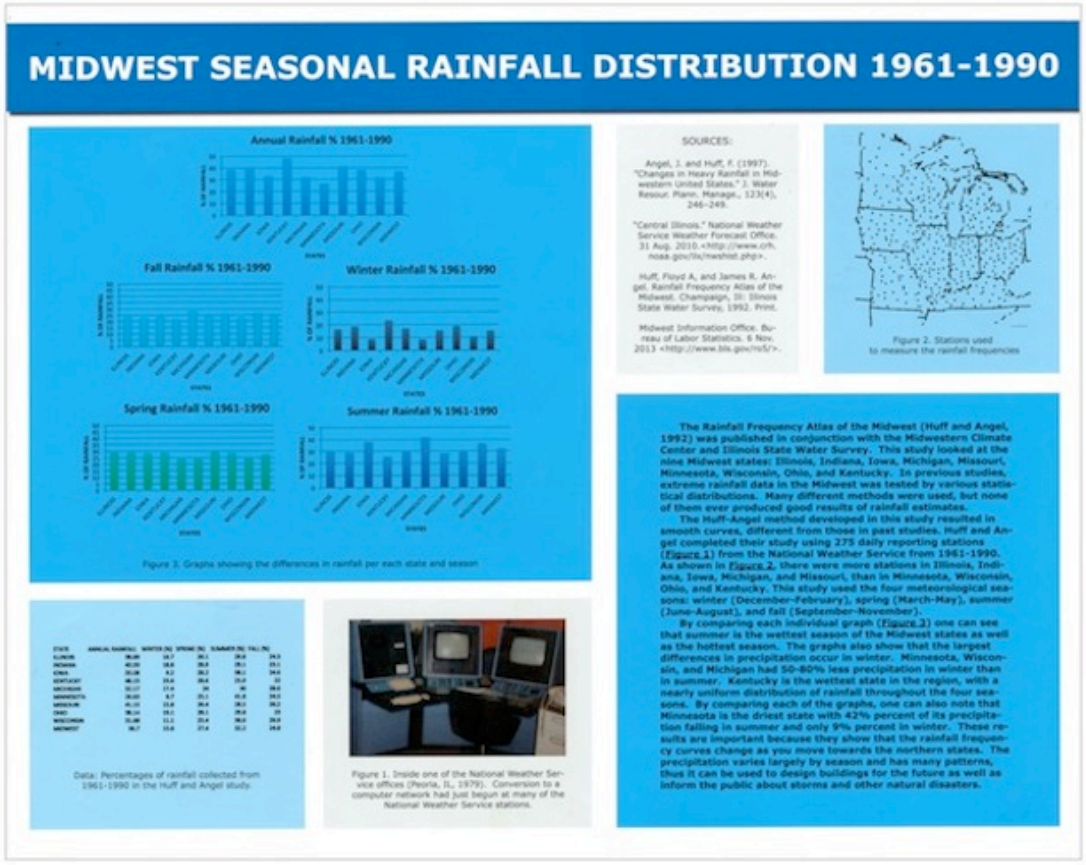


4. What is the major error on this poster?

There is too much empty space.
There are no figure numbers.
The graph was not created in Excel by the student.
Elements of the project are mounted unevenly on the poster board.
The title is too large.

5. Which required elements are present in this poster? Check as many as apply. Note: The dashed line marks the edge of the poster board. Click here for a larger image (opens in new window).

An informative title	**At least one picture**
Table with 50 data points	**At least one map**
A 1-page summary	**At least one graph**
Reference list with at least 3 sources	Uses standard poster board (22x28 inches, 56x71 cm)

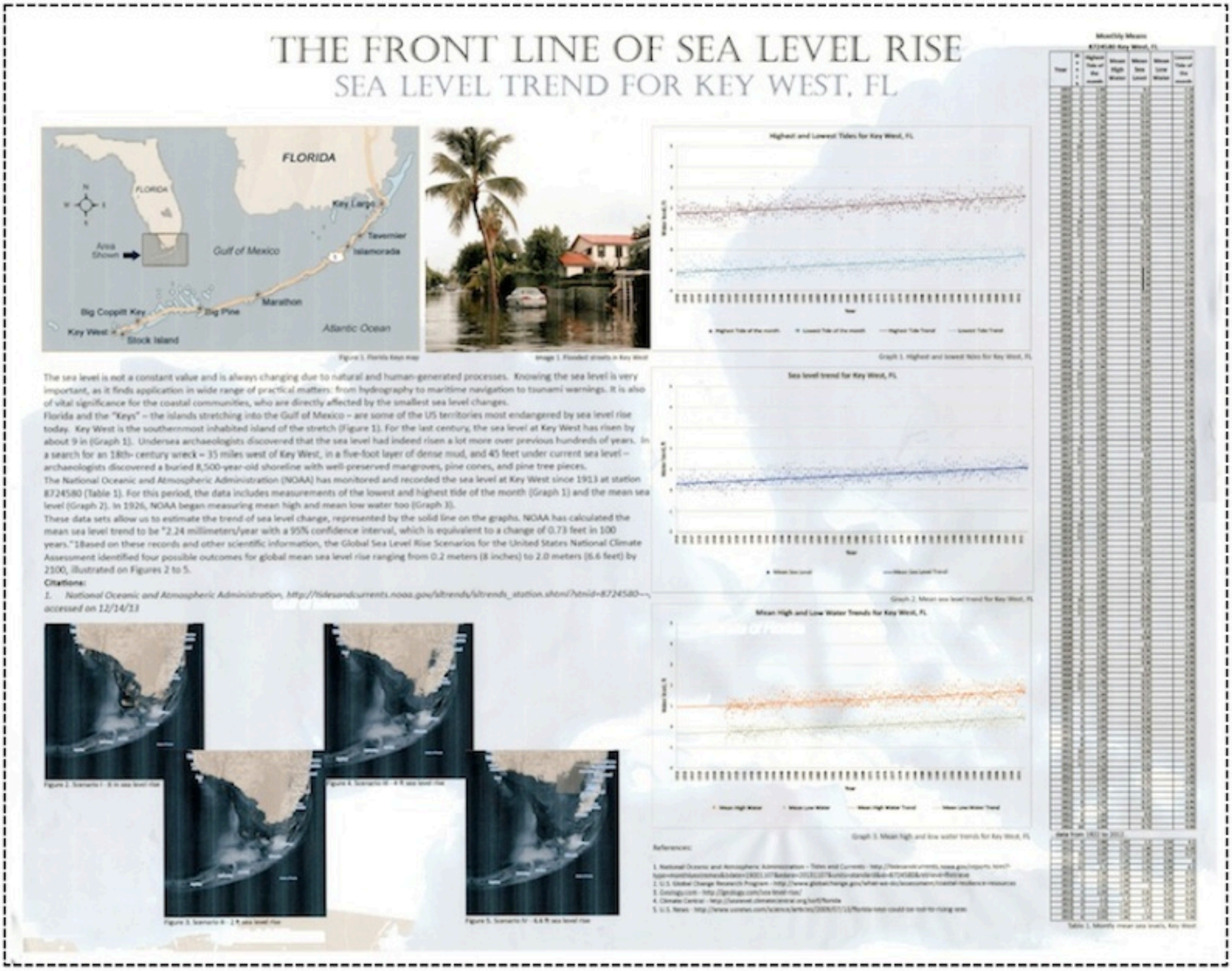


6. What is the major error in this poster?

Text and graphs are hard to read against the background colors.
The title is not informative.
It does not use standard poster board (22x28 inches, 56x71 cm)
Summary and other parts are mounted crookedly on the poster board.
The first graph should be total inches, not percentage.

7. Which required elements are present in this poster? Check as many as apply. Note: The dashed line marks the edge of the poster board. Click here for a larger image (opens in new window).

An informative title
Table with 50 data points
A 1-page summary
Reference list with at least 3 sources
At least one picture
At least one map
At least one graph
Uses standard poster board (22x28 inches, 56x71 cm)

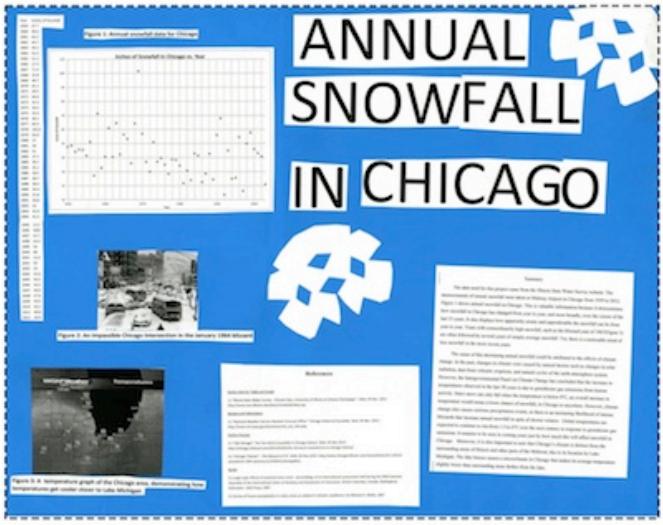


8. What are the major errors on this poster?

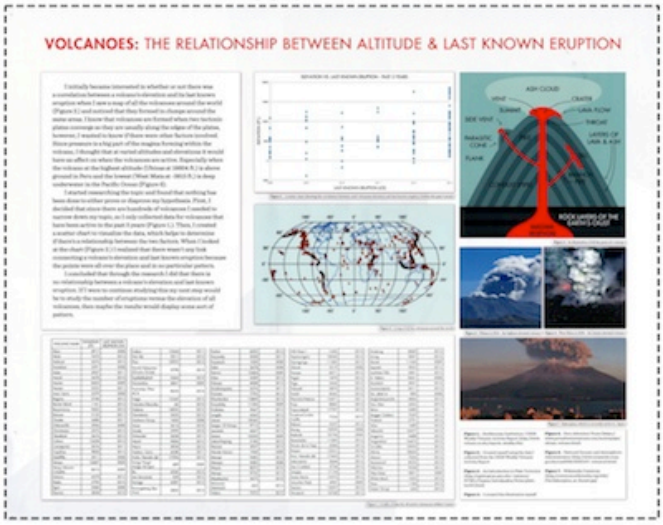
Font sizes are too small to read easily.
The summary does not mention any of the figures.
Text and images are blurry when you zoom in.
There is not enough contrast between the content and background.
Poster elements are crowded together and not straight.

9. Which of these two posters do you think is better overall? Note: The dashed lines indicate the edge of the poster board.
   (Either answer is acceptable.)

Poster A



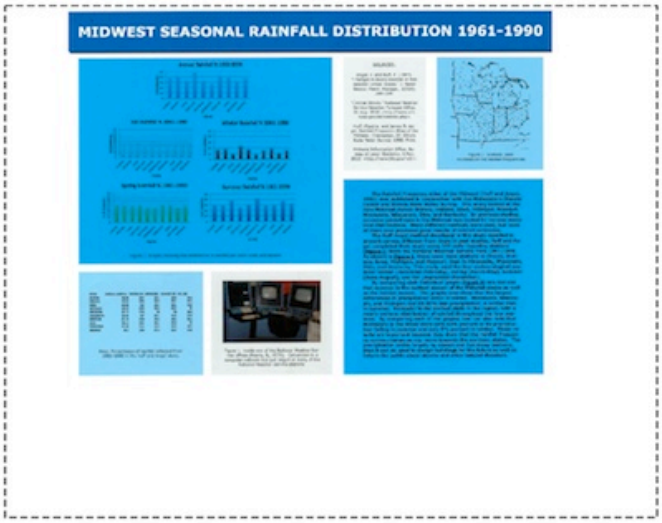
Poster B



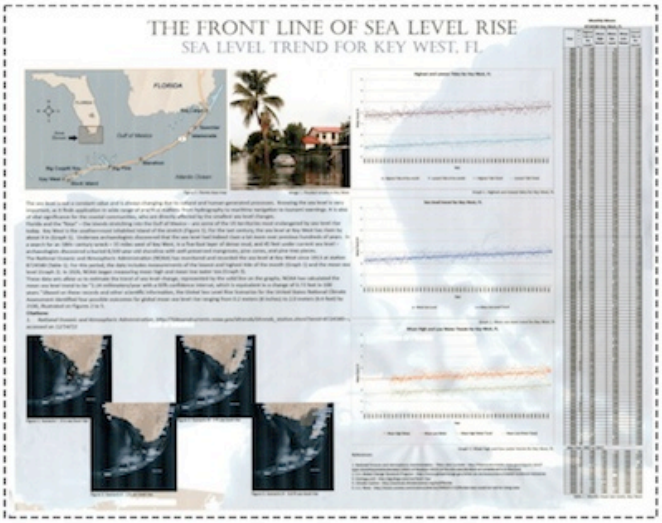
10. Briefly explain your choice from question #9.
    (Short answer question with any answer accepted)

11. Which of these two posters do you think is better overall? Note: The dashed lines indicate the edge of the poster board.
    (Either answer is acceptable.)

Poster A



Poster B



12. Briefly explain your choice from question #11.
    (Short answer question with any answer accepted)