

December 1 Day 54

Charts and Graphs. Put your name at the top of this sheet.

We will answer these questions inside our ELA notebook. (Do not "take out" the paper.)

chart - a diagram of information usually made up of numbers, proportions, or steps in a process (ex. flow chart, pie chart)

graph - contains x and y axes; x = time; and y = some other value (ex. bar graph, line graph)

Steps:

- decide whether it is a chart or graph
- look carefully at the **title** and the **explanation**
- read the **key** - what the symbols mean
- read the text around the chart/graph in the article or book

p43. a. Add up the percentages in the Energy Consumed Bar.

b. Why is the graph called “Too Much Fuel for Too Little Food”?

c. What kind of fuel are they referring to?

d. How many quads of energy do humans take in as food?

a. 100%. Whenever you talk about percentages, the totals almost always add up to 100.

b. We put in or use up seven times more energy in fuel for the food than the energy we get out of that food.

c. Fossil fuels or petroleum

d. We Americans take in 1.4 quads of energy in our food.

p45. a. Why is the chart called “The Nitrogen Cycle”? In other words, what is the nitrogen cycle?

b. Give two examples of human activities that add nitrogen to the soil.

c. Give two examples of non-human or natural activities that add nitrogen to the soil.

d. Give one example of a human activity that adds nitrogen to the atmosphere.

e. Give one example of a non-human activity that adds nitrogen to the atmosphere.

a. The chart illustrates the process by which nitrogen goes from soil to air and from air back to soil.

b. Fertilizer and acid rain

c. animal waste, bacteria, dead animals/plants

d. car exhaust and smoke stacks

e. bacteria and ammonia

- p58. a. Why is this called a pie chart?
b. The slices are divided into what kind of units?
c. Almost 50% of corn is used for what?
d. [complete:]We use six times as much corn for _____ as for _____.

- a. It looks like slices of pie.
b. The units are bushels of corn; the slices are percentages.
c. Animal feed
d. ... six times as much corn for **fuel** as for **HFCS**

p80. a. What is the biggest part of the kernel?

a. endosperm

b. What part of the kernel is corn oil extracted from?

b. germ **p. 82-83**

p86. a. The row of cents along the bottom add up to what?

a. 100 (a dollar!)

b. Of every dollar you spend on processed food, how much (on average) goes to advertising the product?

b. 4 cents

p124. a. Is this a chart or a graph or something else?

b. What does this illustration claim or suggest about obesity and HFCS?

c. [dictionary] Explain the difference between causation and correlation.

a. It's actually a graph placed on top of a chart (see p92).

b. Pollan is suggesting that HFCS causes obesity.

c. **Causation** means cause and effect; event *a* causes event *b* to happen. **Correlation** means that the two events are somehow related; they are seen together at the same time, but we cannot say for sure that *a* causes *b*; we can only say that they are somehow **related** or **correlated**.

D. p92 Explain the connection between the chart on p92 and the graph on p124. What is Pollan suggesting by *superimposing* the graph onto the chart?

Brainstorming: p92 says obesity -- sitting at desks all day, watching tv, playing videos games inside instead of playing outside

p124 suggests a different reason: HFCS

chart shows two trends occurring at the same time