

# **Designing an Infographic**

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# **Designing an Infographic**

## The Goal

Learn to create an infographic that communicates a concept in a clear visual format.

## The Strategy

To accomplish the goal, we will do a variety of projects that will help you:

- Learn more about what infographics are used for an how you can use them too
- Examine existing infographics to review various styles, topics, colors, overall effectiveness
- Select your own topic (article or paper) that can be summarized in a visual format
- Design and sketch out an effective layout that represents your topic
- Turn your design into a digital format using Adobe InDesign

## Why Infographics?

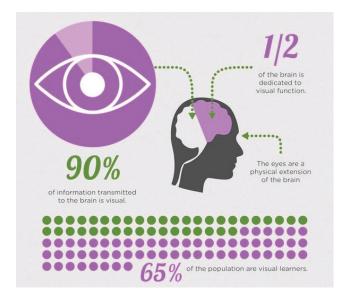
Learning to create an infographic will improve your visual communication skills. Understanding how to create graphics that illustrate and communicate ideas is a skill you can use in all sorts of applications. No matter what you want to communicate, you can create an infographic to help get your story across quickly and effectively.

Infographics sometimes have icons, images, charts, maps, or diagrams that help the viewer understand the content. As you work through this lesson, you will find that unique combinations of words and imagery and are often more powerful than words or imagery alone.

We interact with some form of infographics on a daily basis, from simple signage to complex graphics, infographics help us navigate our physical worlds and our intellectual worlds.

This workbook will guide you through the steps to design your own infographic.

## Did you know?



## **Infographic Practice 1**

Read the article below, then write a major point, a secondary point and a supporting data or statistic and another point of interest. The points you choose to highlight are key points that could be used in an infographic. Then draw at least two (or more) images that could be used to tell the story. In the box, sketch out a few images and words that could help you tell the story. This does not have to look like an infographic, it is intended as practice only.

For the last several years scientists have fretted over the future of bees, and although research has shed much light on the crisis, those in the bee business—from hive keepers to commercial farmers—say the insects remain in deep trouble as their colonies continue to struggle.

The current crisis arose during the fall of 2006 as beekeepers around the country reported massive losses more than a third of hives on average and up to 90 percent in some cases. Bees were flying away and simply not coming back; keepers would find boxes empty of adult bees except for a live queen. No bee corpses remained to tell the tale. The losses were unprecedented and fast.

Now it's five years later, and though colony collapse disorder (CCD)—the name given to the mysterious killer condition—has dwindled in the manner of cyclical diseases, bees are still battling for their lives and their colonies are weaker than ever. The latest data, from the 2012-2013 winter, indicate an average loss of 45.1 percent of hives across all U.S. beekeepers, up 78.2 percent from the previous winter, and a total loss of 31.1 percent of commercial hives, on par with the last six years. (Most keepers now consider a 15 percent loss "acceptable.") Why keep worrying over the fate of a bunch of pesky stinging insects? Bees in their crucial role as pollinators are paramount. Western nations rely heavily on managed honeybees—the "moveable force" of bees that ride in trucks from farm to farm—to keep commercial agriculture productive. About a third of our foods (some 100 key crops) rely on these insects, including apples, nuts, all the favorite summer fruits (like blueberries and strawberries), alfalfa (which cows eat), and guar bean (used in all kinds of products). In total, bees contribute more than \$15 billion to U.S. crop production, hardly small potatoes.

No, we wouldn't starve without their services—much of the world lives without managed pollinators. But we'd lose an awful lot of good, healthy food, from cherries and broccoli to onions and almonds. Or we'd pay exorbitant costs for farmers to use some other, less efficient pollination technique to supplement the work that healthy natural pollinators could do. Plus, bee health can tell us a lot about environmental health, and thus about our own well-being.

http://news.nationalgeographic.com/ news/2013/13/130510-honeybee-bee-scienceeuropean-union-pesticides-colony-collapse-epa-science/

Major point	·	•	<u> </u>	·
Secondary point				
Supporting data or statistic				
Another interesting point				

## **Infographic Practice 2**

Read the article below, then write a major point, a secondary point and a supporting data or statistic and another point of interest. The points you choose to highlight are key points that could be used in an infographic. Then draw at least two (or more) images that could be used to tell the story. In the box, sketch out a few images and words that could help you tell the story. This does not have to look like an infographic, it is intended as practice only.

There is enough water stored in the East Antarctic ice sheet to raise sea levels by 164 feet (50 meters).

Core samples, tide gauge readings, and, most recently, satellite measurements tell us that over the past century, Sea Level has risen by 4 to 8 inches. However, the annual rate of rise over the past 20 years has been 0.13 inches a year, roughly twice the average speed of the preceding 80 years.

Over the past century, the burning of fossil fuels and other human and natural activities has released enormous amounts of heat-trapping gases into the atmosphere. These emissions have caused the Earth's surface temperature to rise, and the oceans absorb about 80 percent of this additional heat.

The rise in sea levels is linked to three primary factors, all induced by this ongoing global climate change:

**Thermal expansion:** When water heats up, it expands. About half of the past century's rise in sea level is attributable to warmer oceans simply occupying more space. **Melting of glaciers and polar ice caps:** Large ice formations, like glaciers and the polar ice caps, naturally melt back a bit each summer. But in the winter, snows, made primarily from evaporated seawater, are generally sufficient to balance out the melting. Recently persistently higher temperatures caused by climate change have led to greater-than-average summer melting as well as diminished snowfall due to later winters and earlier springs. This imbalance results in a significant net gain in runoff versus evaporation for the ocean, causing sea levels to rise.

Ice loss from Greenland and West Antarctica: As with glaciers and the ice caps, increased heat is causing the massive ice sheets that cover Greenland and Antarctica to melt at an accelerated pace. Scientists also believe meltwater from above and seawater from below is seeping beneath Greenland's and West Antarctica's ice sheets, effectively lubricating ice streams and causing them to move more quickly into the sea. Moreover, higher sea temperatures are causing the massive ice shelves that extend out from Antarctica to melt from below, weaken, and break off.

http://ocean.nationalgeographic.com/ocean/criticalissues-sea-level-rise/

Major point	-
	-
Secondary point	
Supporting data or statistic	
	-
Another interesting point	

## **Infographic Practice 3**

Read the article below, then write a major point, a secondary point and a supporting data or statistic and another point of interest. The points you choose to highlight are key points that could be used in an infographic. Then draw at least two (or more) images that could be used to tell the story. In the box, sketch out a few images and words that could help you tell the story. This does not have to look like an infographic, it is intended as practice only.

Lively and speedy critters, chipmunks are small members of the squirrel family. Their pudgy cheeks, large, glossy eyes, stripes, and bushy tails have made them a favorite among animators, and landed them a series of starring roles in Hollywood.

Of the 25 species of chipmunks, all but one, Asia's Tamias sibiricus, is found in North America. Ranging from Canada to Mexico, they are generally seen scampering through the undergrowth of a variety of environments from alpine forests to shrubby deserts. Some dig burrows to live in, complete with tunnels and chambers, while others make their homes in nests, bushes, or logs.

Depending on species, chipmunks can be gray to reddishbrown in color with contrasting dark and light stripes on the sides of their face and across their back and tail. They range in size from the least chipmunk, which, at 7.2 to 8.5 inches (18.5 to 21.6 centimeters) and 1.1 to 1.8 ounces (32 to 50 grams), is the smallest chipmunk, to the Eastern chipmunk, which grows up to 11 inches (28 centimeters) and weighs as much as 4.4 ounces (125 grams).

Major point

Chipmunks generally gather food on the ground in areas with underbrush, rocks, and logs, where they can hide from predators like hawks, foxes, coyotes, weasels, and snakes. They feed on insects, nuts, berries, seeds, fruit, and grain which they stuff into their generous cheek pouches and carry to their burrow or nest to store. Chipmunks hibernate, but instead of storing fat, they periodically dip into their cache of nuts and seeds throughout the winter.

Their shrill, repeated, birdlike chirp is usually made upon sensing a threat but is also thought to be used as a mating call by females. Chipmunks are solitary creatures and normally ignore one another except during the spring, when mating takes place. After a 30day gestation, a litter of two to eight is born. The young stay with their parents for two months before they begin to gather their own provisions for the winter ahead.

For the most part, chipmunks, although susceptible to forest fragmentation, are not currently threatened. However, the Palmer's chipmunk (Tamias palmeri) is considered a vulnerable species.

http://animals.nationalgeographic.com/animals/ mammals/chipmunk/

Secondary point	
Currenting data as statistic	
Supporting data or statistic	
Another interesting point	
-	L

## Part 1 - Identify Infographics Used In Media

In this portion of the lesson, we will look at samples, discuss various kinds of infographics and become more aware of the visual data around us.

First, to appreciate how we use visual data in our daily lives, let's play a quick game of

Pictionary....



Now, let's think about the game of Pictionary.

What visual information helps you make a good guess as to what the person is trying to convey? Does the person doing the drawing have to draw well or is it more about the choices of things to draw?

#### Become aware of the infographics around us

Take 15 minutes to review the materials in the classroom; also, do a google image search of *USA Today* snapshots. Here you will find thousands of infographic examples from simple to complex.

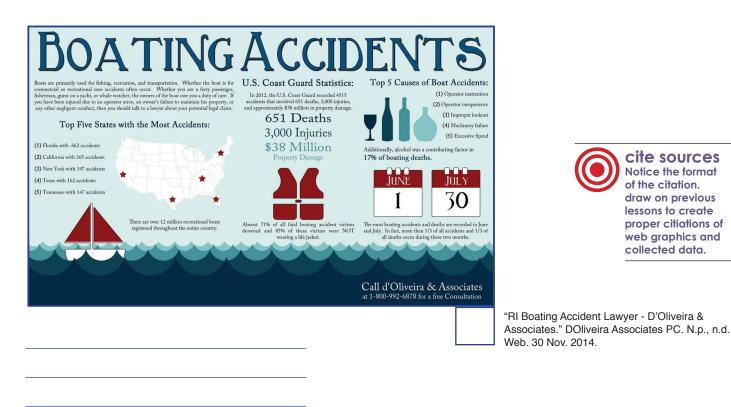
- Browse the Infographic books that have hundreds of examples in them
- Peruse the magazines that use infographics to convey information *Time, USA Today, National Geographic etc.*
- Notice the rotating slide show of USA Today snapshots (google search/images)

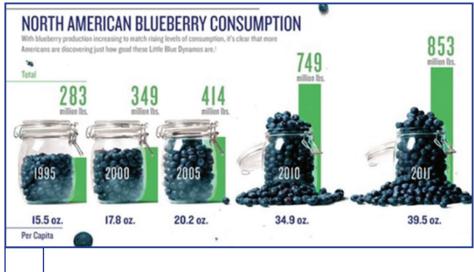
Throughout this lesson take some time to go back and review these materials.



#### Summarize and Identify Infographics

When you look at the infographics on the next two pages, what do you learn from them? In the space provided, write a few words for each sample to summarize what is being conveyed. Prepare to discuss in class.

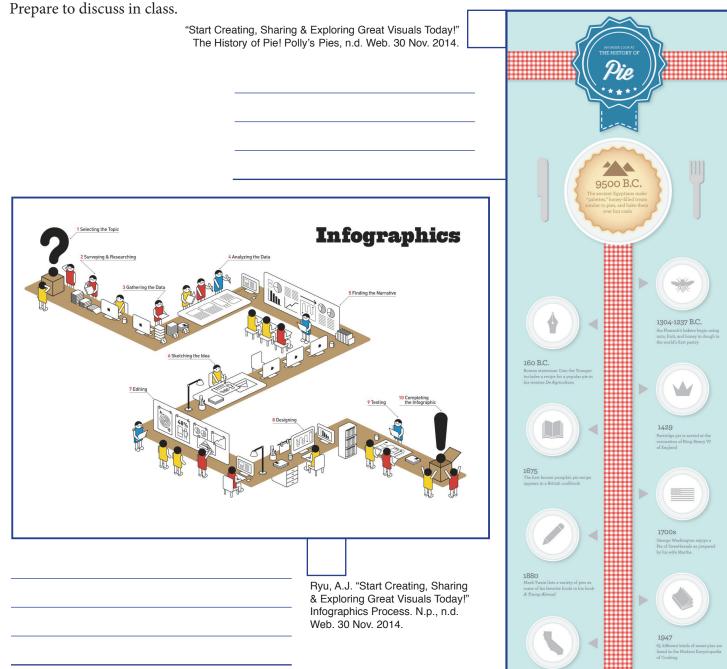




"Blueberry Nutrition - U.S. Highbush Blueberry Council." U.S. Highbush Blueberry Council. N.p., n.d. Web. 30 Nov. 2014.

## Summarize and Identify Infographics

When you look at the infographics below, what do you learn from them? In the space provided, write a few words for each sample to summarize what is being conveyed.



As you continue your research, you will discover there are all sorts of infographics. For this lesson we will focus on four very popular formats.

T) Timeline	I) Informational
S) Statistical	P) Process

Take a guess to determine which kind of infographic each sample represents. Go back to each infographic and write the corresponding letter inside the box next to the infographic.

8

November 1st.

TODAY

1968

#### **Brainstorm discussion**

We have reviewed several samples that show how infographics can make complex ideas easier to understand, Now it is time to brainstorm ways you might use an infographic to communicate something. Take some time to browse the samples in the classroom, the magazines (especially *USA Today*) Describe an infographic topic that you might create that would communicate to:

your family?	
your school?	
science fair attendees?	
other?	

#### Wow, watch this!

Watch this video describing the process of creating an infographic. While this may differ slightly from our lesson, it is a nice overview of the process. Take some brief notes so you are prepared to discuss in class.



#### "A Picture is Worth a Thousand Words" by Kathy Schrock http://vimeo.com/25328216

#### **Cross Curriculum Bonus!**

Over the course of this semester you can earn 3 bonus points for each idea you bring in where you have applied your infographic skills in other classes. To earn the points, the ideas should be based on real case scenarios and must be presented with a rough draft sketch and shared with the class.

## Part 2 - Select Topic and Gather Data

In this segment of the lesson we will be doing the planning tasks of selecting a topic and gathering data. To do so we will use the media lab, internet searches and materials provided in the classroom to help us find suitable topics. We'll discuss using the worksheet to collect data and the importance of citing the data we collect Lets begin with a short exercise and video to help us understand more in depth why visual information can be so useful in communicating ideas.

#### Read the text below.

Why Illustrations are Important

"Of all our inventions for mass communication...pictures still speak the most universally understood language." *Walt Disney* 

How we see and learn can be understood with learning styles. 5% of us learn experientially, 30% verbally, and 65% visually. 90% of all the information that comes into the brain is visual. Learning improves 400% when visuals are used in classrooms. Illustrations can highlight key concepts and objects not easily seen such as the parathyroid glands and the cellular structure of plants.

Our eyes can register 36,000 images an hour, and images are processed 60,000 times faster than text. In a world of stock photos, hand drawings offer unique and interesting perspectives, and are key to many media productions.

#### Now watch the video.

"Why Illustrations are Important" by Vicky Earle. http://vimeo.com/96222642



Discuss: Which has more impact, which is more memorable- the text article or the video?

#### Selecting a Topic

Choosing a topic for an infographic is similar to choosing a theme to write about in English class, a subject to research for Science Fair or a book to read for leisure. Thanks to the internet we can find plenty of significant (and insignificant) information on nearly any topic. Here are some general criteria to consider as you select the topic for your infographic. Remember, sometimes simple is better.

#### You might choose a topic you

- 1) are interested in or passionate about
- 2) can easily collect information about
- 3) already know something about
- 4) want to learn about
- 5) can use with an assignment in another class

#### Try to select a topic that is not too complex, but has enough detail to include:

- 1) 1 major point
- 2) 1 secondary point
- 3) at least 1 instance of supporting data\*
- 4) at least 1 eye-catching image\*

*\*depending on your topic you may have more)* 

#### Infographic Rubric

Directions: Use this rubric as a guide to help you understand what elements are required for successful completion of this lesson. Do you have what it takes to be an Infographic Designer?

Level of Mastery	Time Magazine will be asking for me!	I am getting a handle on this infographic thing!	Back to the drawing board, I need to try this again!
Overall look and design	Complimentary color choices, clean and dynamic layout, proportional balanced layout, matches or improves upon sketch, uses a hand drawn image (25 points)	Reasonable color choices, basic layout, maintains most elements of sketch, no hand drawn images (10-20 points)	Incomplete color application, undeveloped layout, does not match sketch, no images at all. (0-5 points)
Communicates the idea or topic clearly	When compared to the summary, the layout communicates all aspects. (25 points)	When compared to the summary, the layout communicates some aspects, but not all. (10- 20 points)	When compared to the summary, the layout does not get the idea across. It lacks information. (0-5 points
Technicals: correct finish size, 2 fonts, 2 colors, large and small elements reflect planned emphasis, images and data have sources listed	Meets and or exceeds all technical requirements. (25 points)	Meets some of the technical requirements. (10-20 points)	Few or none of the technical requirements are met. (0-10 points)
InDesign Document and process is complete: correctly named, layers in tact, scanned at correct resolution and file type	All aspects of the InDesign process are completed as instructed. (25 points)	Some aspects of the InDesign process are completed as instructed. (10-20 points)	Few or none of the InDesign process instructions are evident (0-10 points)

**Infographic Topic Ideas** You might consider starting with a statement or question. Read the ideas below for inspiration; you may use one of these if you want.

- Animal facts
- Personal food consumption
- Daily time use
- Biography

- How to make something
- Where do we spend our money?
- What makes us healthy?
- Breakdown of nutrients in a meal
- Compare favorite vegetables
- Favorite school sports
- Where does energy come from?
- How does a boat sail?

#### Select Topic and Gather Data

#### Infographic Worksheet

Use this worksheet to collect everything you need to create the infographic. It is very similar to the practice sheets. Use the internet and or media center resources to find your topic and data. Remember to cite all your data, including images. If you wish to use an image from the internet, note its source and sketch it out in the box.

My topic is	
Major point	
source	
Secondary point	
source	
Supporting data or statistic	
source	
Another interesting point	
Source	
Optional additional info	
source/s	source/s

## Part 3 - Plan and Design a Rough Draft

Now for the fun part! The research is done and it's time to put it all together. Think about your audience, choose a style, colors, fonts, and general layout for the infographic. The goal is a rough draft sketch of your infographic. If you have any questions, be sure to ask.

My audience is (Describe your audience, age, gender, group characteristics etc. It could be everyone.)

<b>2 colors</b> that suit my topic are
and
Remember to apply what you know about
the color wheel and complementary colors.
Remember you will want at least one eye-catching graphic does it need a specific color?

**2 fonts** that will work my infographic are: (*circle only 2*, *one headline font and one body font below*) Is your topic casual or serious? Consider the feeling or mood a font conveys. Apply what you know about fonts.



**Times Bold** Noteworthy



**BODY FONTS** 

Helvetica Regular

Times Regular

Arial Avant Garde

Alternatively, you may choose your own fonts \_\_\_\_\_

## ... and now for the transformation!

Use the next sheet in the workbook to bring it all together. Use this sheet and the infographic worksheet (pg 11) to create your rough draft. Mock up the fonts for now, you will add them later when you convert your sketch to digital format. Sketch the infographic out using colored pencils in the 2 colors you've chosen. Remember: hierarchy of information, proportion, intended audience, and space at the bottom for credits in 7pt text.

Feel free to use additional paper for planning. Ask questions if you need more information. Review the Rubric on (pg 10) before you begin.



Remember to Cite SOURCES for all borrowed images and data.

Create your "final" rough draft on this page

## Part 4 - Execute the Digital Layout

In this segment of the lesson you will turn your sketch into a finished digital infographic rendered in Adobe InDesign. This will involve:

- 1) scanning and placing the sketch for reference
- 2) creating a new document (page)
- 3) establishing layers in the document
- 4) using drawing tools to render a graphic/icon/ drawing
- 5) typing the headers and selecting fonts
- 6) setting up colors in the color palette
- 7) arranging elements on the page
- 8) saving and printing the final document

On the following page you will find a Digital Layout Check Sheet to help guide you through the steps in the process.

These steps will require you to call on skills you have learned in previous lessons. Please ask questions if you need assistance. Use what you know about the proper naming of files, how and where to save files, and formats used for scanning graphics.

#### What does it take to be a designer anyway?

Ponder this: Do you have to be a fantastic artist and have the ability to draw realistically to be a designer? We've all heard people say- "I can't draw a stick figure!" Right? Do those who don't like to draw have to avoid design careers? What other stereotypes can you think of that might keep people from pursuing their dreams?

#### Watch this TEDTalk video

"The Beauty of Data Visualization" by David McCandless. http://www.ted.com/talks/david\_mccandless\_the\_beauty\_of\_data\_visualization#t-1481



Discuss: Is good design more about being an observant person, a creative thinker, or an artist? How is being a creative thinker different from being artistically inclined?

## **Digital Layout Check Sheet**

The goal is to make a polished, digital version from your infographic sketch. Go to your assigned computer station and confirm your access to the following tools. 1) a computer, a mouse 2) Adobe InDesign 3) connection to a flatbed scanner 4) connection to a color printer

Create your finished design by following these steps. You do not have to do them in this exact order, but check them off as you complete them.

- Place sketch on scanner and save as color jpeg at 150 dpi.If a hand drawn image will be used in final, it should be scanned at 300 dpi.
- \_\_\_\_\_ Open a new InDesign document (dimensions 12 x 18 with 2 inch margins), and save document as "firstname\_lastname\_infog1".
- \_\_\_\_\_ Open your document, create 2 layers. Name the top layer 1 "infographic" and bottom layer 2 "scan".
- \_\_\_\_\_ Place the jpeg scan onto bottom layer, size it to fit the page, then lock layer.
- \_\_\_\_\_ Render images with drawing tools or place selected images into the layout. Scale as necessary
- \_\_\_\_\_ Type header, key points, supporting data
- \_\_\_\_\_ Type and place credits in 7pt Helvetica (regardless of the 2 fonts you have chosen) along the bottom with commas to separate credits. You do not need to specify what credit goes to what data or image for this lesson.
- \_\_\_\_\_ Select your 2 colors and place them in swatches.
- \_\_\_\_\_ Colorize the text and elements as you like using the 2 colors. If both of your colors are light you may use black for small text.
- \_\_\_\_\_ Remove all other unused colors from the swatch palette.
- \_\_\_\_\_ Select and incorporate only 2 fonts into your design.
- \_\_\_\_\_ Arrange elements, to match or improve upon the original sketch. You may add linear elements, boxes, shapes, reverse text etc.
- \_\_\_\_\_ Turn off the visibility of the "scan" layer as you need to check your progress and to finalize the arrangement. Layer should be turned off to submit work.
- \_\_\_\_\_ Review the Rubric on page 10 and revise your design if necessary.
- \_\_\_\_\_ Print your final infographic design in color and hang on the gallery wall at the front of the class.

#### Success is yours! You have completed the lesson!

#### **Lesson Reflection**

Now that you have finished the *Designing an Infographic* lesson, please take a moment to review and critique the lesson itself. Your input is valuable as it will help the instructor make improvements for future lessons.

What changes could help this lesson be more successfull?

Is there anything you would add to the lesson?

Is there anything you might remove from the lesson?

Was the language easy to follow?

Were the activities relative to your life?

Do you have any additional suggestions or comments?