THE DIGITAL WAY 2ND EDITION

ADOBE PHOTOSHOP CC
ADOBE BRIDGE CC
ADOBE LIGHTROOM CC

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WELCOME!

Welcome to my exclusive course, The Digital Way! Photoshop is one of the best and most powerful photo manipulation courses to date. Most, if not all, graphic designers use it in the workplace to fulfill client's needs. This course prepares students for the workplace, and more importantly, the Adobe Certified Associate Exam. I just recently took the exam for Photoshop. The exam is going to take time to train and prep for, and I hope that this course can do that for you.

- Zac DeLane, Author of the Digital Way

HOW TO READ THIS BOOK

All files, worksheets, and activities can be accessed online via The Digital Way website. Go to **https://goo.gl/gsjG18**, and select the module you're in.

If you want feedback on assignments and receive correct answers, try my Google Classroom! I can give critical feedback on designs, work, and lots more. As of this book publishing, you can go to **classroom.google.com** and put in code "fo7ykze".

Each lesson follows a similar structure:

- Lecture
- Activity A/B/C
- Quiz

At the end of each module, there is a Test Prep, and a Written and Visual test.

WHAT ARE WE EVEN LEARNING?

This book covers the concepts of Photography Manipulation and Design. I designed this book with the Adobe Certified Associate exam, lining up the chapters to match the main domains and learning points, while keeping it in a sequential order that makes sense. Once you get to Chapter/Module #6, tggEdu goals will be covered 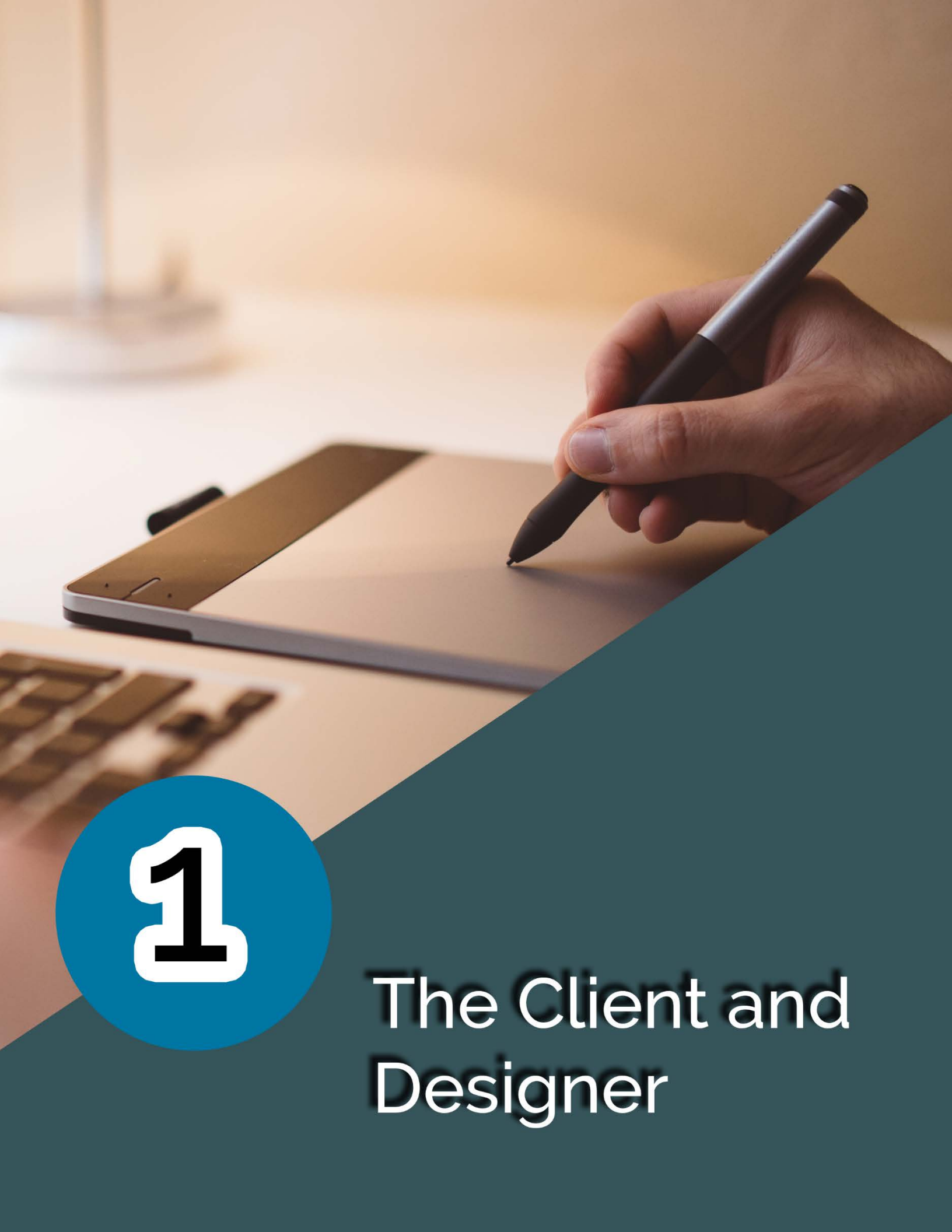for the tggEdu Photography Mastery Certification. Module #1-5 are all about prep for the Adobe Certified Associate exams. Will all areas of the exam be covered in this book? No, but I created this book from memory of questions I remember getting wrong, so you don't get them wrong too.

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The Client and Designer

1-1

PURPOSE

Main Idea	Terms	Adobe Goals
All images have a purpose, whether emotional, historical, or personal.	• Purpose • Audience • Demographics	Identify the purpose, audience, and audience needs for preparing images.

Every image has a purpose. This purpose can vary from image to image.

For instance, say you look at an image of your dog. What do you feel? All images have a connection to our emotions, thoughts, and sometimes your history.

As a designer, you need to be able to find images for your client that are useful and fit the purpose of the business. Look at these images.

You may find scenarios where you would use each of these images. As well, you may have ties (like emotional, thoughts that come to mind, or your prior experiences) to each of these images.

Remember that every single image has a purpose. Every person that sees an image thinks of something. As the designer, you need to be able to recognize the purpose behind the image to designate what is appropriate for your project.

Understanding your target audience and the demographics your appealing to can make or break your project. Ask your client key questions, like

- What target audience are you appealing to? (seniors, young kids, gender, etc.)
    - These groupings are called **Demographics.**

- What is the purpose of your business/company?

- What reaction do you want from your audience?

Remember, the images you choose to use in your project convey messages to audiences. You need to choose images, colors, and elements in your design that appeal to your target audience.

Lesson   **#1-1**   Quick Check

Define the following terms:
Purpose   Demographics   Audience

Answer the following questions:

- Why is it important to appeal to your audience?
- How can you measure demographics?

Expand your Thinking:

Create a Venn diagram, comparing 2 different images and the emotion tied to them.

Ps The **Digital** Way
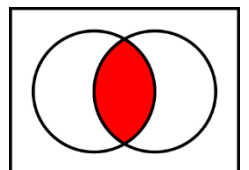
For each box, find an image on Google that would match all the requirements, and paste into the box.

Description	Image
You are designing a poster for a after school kids club. You want to include a picture that makes not just kids, but parents to take their kids to the after-school club.	
You are creating a web graphic that is to promote a new video game coming out. You want to include a photo that appeals for kids to buy this new product.	
You are creating a print advertisement to advertise a new school club, all about chess.	
You're creating an infographic that details global warming in the arctic regions.	

Lesson **#1-1** Activity B

Fill out each box with the correct definition of each term.
Remember, these terms will come back on quizzes and future tests.

Demographics	
Audience	
Audience Purpose	
Audience Reaction	
Target Audience	

Answer the following questions:

When should you meet with your client to discuss your target audience/demographics?

What else should you and your client discuss before starting the project?

COPYRIGHT AND LICENSING

Main Idea	Terms	Adobe Goals
Images and designs are protected by a legal right known as copyright.	• Copyright • Licensing • Fair Use	Summarize how designers make decisions about the type of content to include in a project, including considerations such as copyright, project fit, permissions, and licensing.

Copyright and design is one of the MOST IMPORTANT factors that goes into designs! This can affect your entire design, mainly, the images you use within your design.

> *the exclusive legal right, given to an originator or an assignee to print, publish, perform, film, or record literary, artistic, or musical material, and to authorize others to do the same.*
>
> From google.com

Figure 2.1 – Defines Copyright

Remember, copyright is the legal right given to creators that protects their work under the strict law. Copyright works last for

the creator's lifetime, **plus 70 years after they die.** If you are unsure about using a certain image, **don't use it, or contact the owner of the image.**

Licensing is the process done to gain rights to use an image for professional use. This can be done by websites, such as suttershock.com, or done by the owner directly. Generally, licensing does cost money.

REMEMBER:

YOU MUST contact the owner of the image, or license through a 3rd party. Just giving credit to the image or in the Metadata IS NOT ACCEPTABLE and could lead to legal actions.

Fair Use is the principle of using copyrighted materials with specific reasons. The overall reasons/justifications for fair use are *Criticism*, *Comment*, *News Reporting*, *Teaching*, *Scholarship*, and *Research.*

See an example of copyright law in action. Watch the video at https://goo.gl/WnqLe5

Some resources to keep in mind to prevent copyright are using Google Images advance search, and Creative Commons Image Database. The US Government also developed a Fair Use checker, to verify if your use is deemed fair use.

Connecting to other Adobe Products

You can verify if someone has embedded Copyright into an image by using Adobe Bridge or Photoshop.

See an example of how to do this. Watch the video at https://youtu.be/PPqeDdM4QVA

Finally, remember that certain images will fit your project, based on the factors discussed in *Lesson #1-1* and this module.

Lesson #1-2 Quick Check

Define the following terms:
Copyright   **Fair Use**   **Legal Action**

Answer the following questions:

- How can copyright change your design?
- Why is copyright important?
- What does fair use entitle?

Expand your Thinking:

Create a Venn Diagram, comparing Fair Use and Licensing
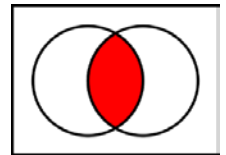
CASE STUDY: Obama's Campaign Poster

Back in 2011, A street artist by the name of Shepard Fairey created the iconic "Hope" poster, which was widely used in the Obama campaign. Right after printing, he started to sell them on the street, which made the posters grow in popularity. Yet, the image he used in the campaign was a copyrighted image by the AP (Associated Press). They both went to court to settle the scandal. At court, the AP argued that Fairey gained over $400,000 in sales from the hope image, while Fairey argued he modified the graphic so much it was covered by Fair Use policies. In the end, both agreed to settle the suit by sharing rights with the AP, although the financial terms remain disclosed.

CASE STUDY Questions

1. What could Fairley have done to prevent this altogether?

2. Why did Fairley argue for fair use?

You will be given 3 images. Determine, using Photoshop or Adobe Bridge, if these images are copyrighted or OK to use. If the image is OK to use, determine the audience purpose, demographics for the single image, etc.

Image	Copyrighted?	Audience Purpose?	Demographic?

Lesson **#1-2** **Activity B**

Billy is a graphic designer looking to find some images to use in his design project. Read each of his thoughts" and determine if it would be legal or illegal, and why.

Man, this image looks amazing! Maybe I can take it from there Instagram account, it's no big deal.

WOW! This image that I found via the Creative Commons search area looks so nice!

Cool! This logo looks amazing! This will surely help my client's reputation!

Neat! This image says nothing, so that must mean its free to use!

Visual
Complete the diagram
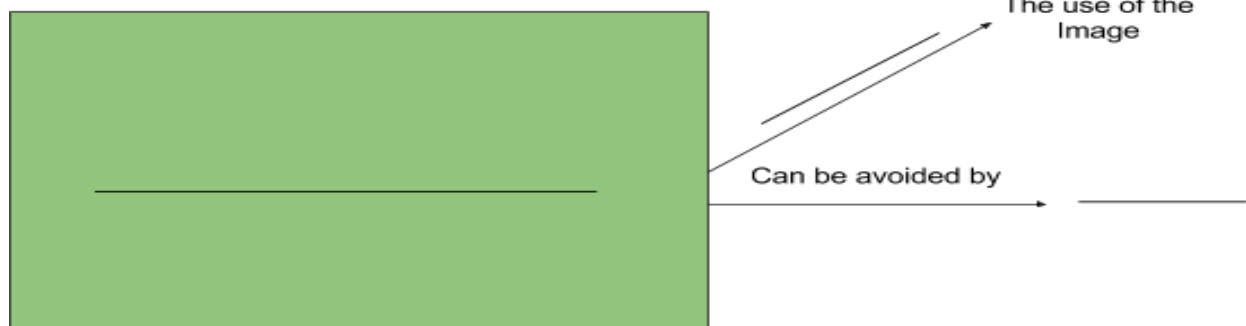
The use of the Image

Can be avoided by

_____

Fill out each box with the correct definition of each term.
Remember, these terms will come back on quizzes and future tests.

Fair Use	
Copyright	
Creative Commons	
Licensing	
Image/Content Fitting	

1-3

PROJECT MANAGEMENT

Main Idea	Terms	Adobe Goals
To manage a project with a client, the PMI has developed steps to efficiently manage your project.	• Scope • Scope Creep • Method Mismatch	Demonstrate knowledge of project management tasks and responsibilities.

Understanding how to make a project work efficiently is key to working with a client, your peers, and even yourself. Project Management is a system developed by the PMI (Project Management Institute) that sets key steps and strategies to efficiently manage a project.

Is it professional?

project update - things going well! _ ⬈ ✕

tggedu@gmail.com

project update - things going well!

Project Update - Things Going Well! _ ⬈ ✕

tggedu@gmail.com

Project Update - Things Going Well!

Figure 3-1: 2 emails, which one is more professional? Why?

Maintaining **professionalism** with your clients and peers is a key strategy used by many. As a starting graphic designer, you need to understand professionalism comes from the way you type, speak, and your body language to the client. Wearing business attire, spelling words correctly, and speaking professionally are key elements to professionalism.

Scheduling frequent meetings with your client is another great way to be professional, plus provide updates to your client. The Pitch meeting is the initial meeting with the client to discuss the ideas for your project.

At the Pitch Meeting,

- Talk budget for the project
- Discuss your target audience and demographics
- Lay out a timeline of start/end days of each step of the project
- Discuss what they want you to make, and why they want you to make it.

Scope: Project scope is the work required to output a project's deliverable. Change happens, and project scope management includes the process to manage scope changes and make sure the project will still come in on time and within budget. The scope is often defined by a work breakdown structure, and changes should take place only through formal change Ctrl procedures.

Method Mismatch: Methods on older/different scaled projects that may not work on a new project

Figure 3-2: Terms to know when managing your project

Scope and Method Mismatch are important concepts to implement into your project. Knowing the effort it will take to produce a product is important, so you can allocate resources efficiently through your design company. Using methods, you used on a smaller project, such as a project management software, would be very inefficient.

Say you use Project Management Plus, designed for small scale projects, like business cards, on creating posters for a fast food firm. This would be an example of Method Mismatch.

Understanding your project scope can help prevent Scope Creep, additions to a project without approval from the client that leads to your project growing out of Ctrl. Scope Creep can be common in many projects, and understanding and setting your scope and proper methods before starting can be key.

Steps in completing a project (IN ORDER) (based on PMI):

- Planning and analysis
- Design
- Building and testing
- Proofing and revising
- Implementation or publishing

These are the steps to completing a project. These are important, as they walk designers through an efficient process of completing a project with lots of planning and preparation.

Planning and Analysis involve the initial steps to get the project ideas going. Some designers create Mockups or a rough sketch of the design layout.

Design involves the overall creation. Wither it's a poster, business card, this is where the planning is put into action. Designers generally send frequent **rough drafts** through this phase to the client.

Building and Testing are where designers start to test the design. This is more present in web design, but can also be applied to print designs. For instance, designers can hold focus

groups and ask other designers for feedback on designs. After testing, Designers send the **Final Draft** to the client.

Proofing and Revising come after receiving feedback from the client. This can become one of the longest steps, as receiving lots of feedback can be a lot to correct.

Implementation and Publishing is the final step. Based on the client's needs the **Final, Final draft** will be published either to the web or to print. It's always good to stay in contact with the client after publishing to see if they need anything else or improvements.

Remember, professionalism is the MOST IMPORTANT ASPECT OF A WORKPLACE RELATIONSHIP!

Lesson   #1-3   Quick Check

Define the following terms:
Design   Analysis   Planning   Testing   Scope

Answer the following questions:

- Why would scope creep be bad?
- If scope creep occurs, what would be the best thing to do?

Read the email from the client, and prepare a timeline using the chart below. Some boxes may not be filled. Feel free to add boxes, too.

From: jerry@hamburgerhawns.com
Subject: Design Information
Sent on: 1/11/2017

**Hamburger Hawn's
We need YOU to design a billboard for the I-35 highway!**

It MUST be done by February 8th, 2017.

**Thanks,
Jerry**

Date	Item Started/Completed
1/11/2017	Project Started
2/8/2017	Project Finished and Submitted

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Fill the table out with the definitions of the key terms.

Timeline	
Project Management	
Professionalism	
Pitch	
Mockup	
Rough Draft	
Final Draft	

Lesson **#1-3** Activity C

Define each of the following terms, and signify their importance in your project.

Term	Define	Significance
Scope		
Plan		
Draft		
Testing		
Pitch		
Communication		
Scope Creep		

Write
What is Scope Creep? How can it affect your entire project?

1-4

COMMUNICATION

Main Idea	Terms	Adobe Goals
Communicating with coworkers and clients frequently is a crucial element of workplace relationships.	• Communication • Teamwork • Collaboration	Communicate with others (such as peers and clients) about design plans.

Communication with your clients, peers, and your coworkers is crucial to maintaining your professional nature.

Remember some key things:

- Send emails/updates frequently. Don't leave your client in the dark. It may be your project, but it's your client's design.
- Talk and type in professional ways. Using pop culture abbreviations like "LOL!" and "OMG!" are very unprofessional. Try your best not to use professional abbreviations, such as R.S.V.P, D.I.Y, or B.Y.O. Take the time to type the whole word out.
- Talk and dress in a professional manor.

Take the time to review *Lesson #1-2* and *Lesson #1-3*, as professionalism is debriefed more in those chapters.

Lesson **#1-4** Quick Check

Define the following terms:
Teamwork   **Collaboration**   **Communication**

Answer the following question:

- Why should you communicate frequently?

Lesson #1-4 Activity A

You and your co-workers are working on a project for a design company. Below are some emails your coworkers sent to you. Based on this, type a valid email response.

Sender: Enrique
Subject: Missing TIFF File

Hey,
I'm missing a file; do you happen to have it?

Thanks,
Enrique

REPLY
To: Enrique
Subject:

Sender: John
Subject: Hamburger Graphic

Hey,
I found this really cool graphic on copyrightedpics.org. Can I use it?

Thanks,
John

REPLY
To: Enrique
Subject:

Vocabulary
Review and type the definition of all the key terms.

Teamwork	
Collaboration	
Professionalism	

Connect to English
Rewrite the following email, and make it more professional.

Hey billy,
I was so busy last night, i reaally dont think i am going to make it last night. Truly, i think this prj is coming together lol. Really, i think is is coming together. I worked so hard in photoshop last nght. So sorry, the wife just had a baby and its really cute. Ill send pics.

Thaks,
joan

MODULE 1 TEST PREP

Look at the images, and write a scenario for a business that may use the image.
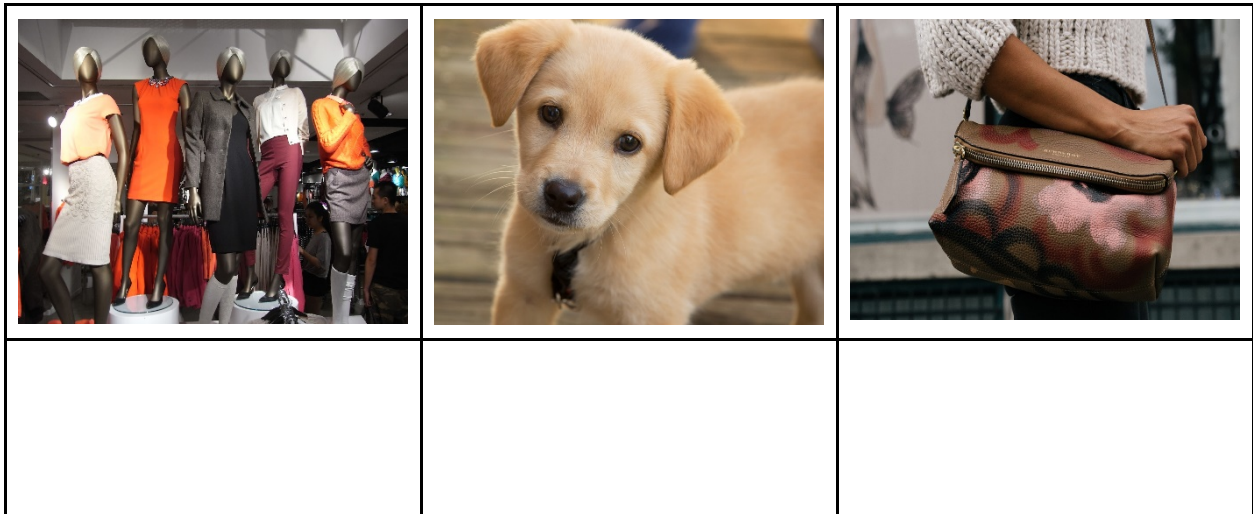
Define the following terms:

Demographics	
Target Audience	
Audience Reaction	
Purpose	

What is Fair Use? What reasons fall under fair use?

What does copyright mean? How can you avoid it/use free images?

What is licensing? What websites can provide licenses? What is the best way to get a license?

Define the following terms:

License	
Copyright Law	
Fair Use	
Image Fitting	

Professionalism is important in a client-designer workspace. Why?

When should you update your client?

When should you provide a rough draft of the project? A mockup? A final draft?

What is a pitch meeting? What should be presented at the pitch meeting?

Define the following vocab terms:

Pitch	
Mockup	
Professionalism	
Communication	
Draft	
Scope	
Project Mismatch	

What is one difference in the following emails? Which is more professional? Why?

Project Update - Things Going Well!   _ ⤢ ✕

tggedu@gmail.com

Project Update - Things Going Well!

project update - things going well!   _ ⤢ ✕

tggedu@gmail.com

project update - things going well!

Name the steps to complete a project in order, and their significance:

Define the following terms:

Teamwork	
Collaboration	
Professionalism	

VISUAL EXAM → MODULE #1

Use a free design service, such as canva.com, or pictochart.com to create an infographic that describes basic US Copyright laws, and fair use policies.

Be sure to include the following information:
- Information on modern copyright laws
- Information and policies on fair use

Rubric:

	5	10	15	20
The harmony of information presented on the graphic was well designed and well presented.				
The graphic looked clean and well presented to the audience.				
The graphic looked polished, the colors and shape elements were well chosen and thoughtfully presented.				
The graphic demonstrated the correct copyright definition.				
The graphic demonstrated the correct knowledge of fair use				

2

Properties of Images

To understand how all images work, there are some key terms
to know when working and manipulating images.

Resolution	Refers to the overall quality or appearance of the image. This can be represented by the pixels by the pixels *Example: HD Resolution is 1920 by 1080*
Pixels	The units of measurement on photos. *Example: 1920 pixels by 1080 pixels*
Type	Symbols used to create text within an image
Raster	An image which is made up of pixels; also known as a bitmap image.
Vector	An image which creates shapes through mathematical definitions.
Object	A shape which has been drawn in Photoshop which can be moved and rasterized.
Bitmap	Color mode that uses black and white values to specify color.
Render	A method to preview sections of all in its final form before it is exported.
Path	A vector shape that contains no pixels. Paths can also be converted to selections.

Lesson **BEB** Activity A

Fill in the blanks with either the definition or vocab word.

Type	
	A single dot in a digital image that is assigned a specific location and color value. Pixels are the base elements for all images in Photoshop.
	An image which creates shapes through mathematical definitions.
	An image which is made up of pixels; also known as a bitmap image.
Bitmap	
Path	
Render	
	The number of pixels per square inch on a computer-generated display. The greater the number of pixels per square inch, the higher the quality of the image.

Word	Scenario
	Judy is saving a final draft of her project to send to her client.
	Enrique is creating a new .psd fine that is 1920x1080.
	July is creating a new image, which is made up of pixels.
	Using some math, Bill was able to create some shapes on his .psd document.
	Suzy is using a certain color map while she is working in Photoshop.

Lesson   BEB   Quiz

Write the correct vocabulary word for each of the definitions.

	A single dot in a digital image that is assigned a specific location and color value. Pixels are the base elements for all images in Photoshop.
	An image which creates shapes through mathematical definitions.
Render	
	An image which is made up of pixels; also known as a bitmap image.
	The number of pixels per square inch on a computer-generated display. The greater the number of pixels per square inch, the higher the quality of the image.

Create a Venn diagram of Vector and Bitmaps.

2-1

DESIGN PRINCIPLES

Main Idea	Terms	Adobe Goals
The Design Principles are the building blocks of everything in design, in all fields.	• Contrast • Repetition • Harmony	Demonstrate knowledge of basic design principles and best practices employed in the visual design industry.

As the author of this book, writing all these lessons, worksheets, and content, I guarantee you, this will be the MOST IMPORTANT lesson of your graphic design career. These principles are the fundamentals of design. The question is, what are the design principles? Well, to put simply, these principles are the fundamentals of design, or the building blocks of design. You will be able to look at ANY piece of art or design, and be able to identify the elements of design.
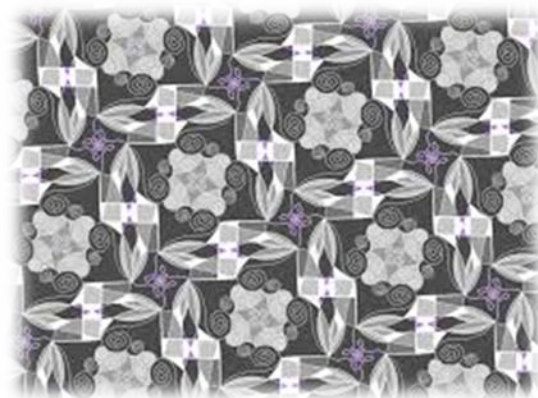
Repetition refers to an element repeating more than once on a design. It's good to repeat colors, fonts, and other elements on a design. Having too much diversity within a design gets very visually unattractive and busy for readers. Remember, you want to make a visual impression within 5 seconds of a patron looking at your design.

tggEdu Educational Center

Come to our center to take tests!

11092 Center Rd.
Austin, California

tggEdu Educational Center
Come to our center to take tests!

11092 Center Rd.
Austin, California

Look at the 2 business cards above. While the one on the left demonstrates repetition, the left card shows too many changes in fonts, as well as the font size, does not repeat.

Contrast refers to the difference in color between the foreground and background. For instance, if I were to write this textbook in a bright yellow, do you think you could read it? The contrast between white and yellow is poor. Having good contrast between your background and foreground is key to make your design readable and visually appealing.

Figure 2-4: Demonstration of Contrast, black and white

tggEdu Educational Center

Come to our center to take tests!

11092 Center Rd.
Austin, California

tggEdu Educational Center
Come to our center to take tests!

11092 Center Rd.
Austin, California

Looking at the business card examples, the one on the right is readble, with the element (or the text), a nice white with a blue background. Yet, the one on the left is a dark green on a blue background.

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THOUGHT BUBBLE

Contrast is one of the most important design elements in the entire world! I remember doing Poetry Presentations in 10th grade and remembering someone people using a purple highlight with a dark blue font. Which would look like this. Could you even read that? Now try imaging to read it from 10 feet away. You may not have realized it, but you may have fallen to this in the past. Be cautious and aware of what you can and can't read!

O O O O O O   O O   O O   O O
O O O O O O   O O   O O   O O
O O O O O O   O O   O O   O O
O O O O O O   O O   O O   O O
O O O O O O   O O   O O   O O
O O O O O O   O O   O O   O O

Proximity is the principle of space with meaning. It also can be conveyed as placing related elements in your design together. For instance, placing an email and phone number next to each other makes sense. Being aware of what your elements mean and convey allows for easy placement of your design.

tggEdu Educational Center

Come to our center to take tests!

11092 Center Rd.
Austin, California

tggEdu Educational Center

Come to our center

11092 Austin,
California
Center Rd.

to take tests!

The card on the left demonstrates a solid knowledge of proximity. The phone number and address are grouped

separately from the title and tagline. Yet, in the image on the right, the description may be aligned, but they are separated, with the phone number and address in the middle, making the overall design look weird.
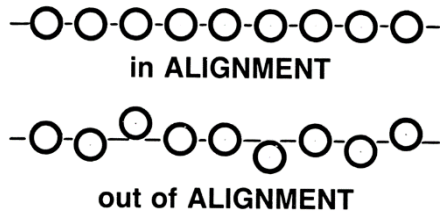
Alignment refers to the overall inline of elements. This can also refer to elements being centered, aligned to the right/left, or anywhere on the page.

Figure 2-7: Example of Good and Bad alignment
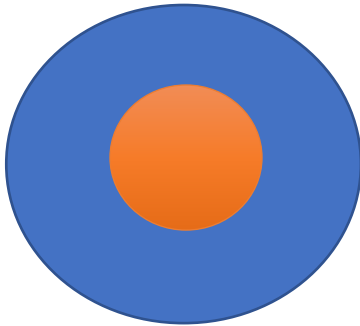
Scale refers to the size of certain elements on a page. Depending on how big or small something is what the scale is. Sometimes, your scale should be bigger than others to emphasize titles or headings.

demonstration of scale with circles.

tggEdu Educational

tggEdu Educational Center
Come to our center to take tests!
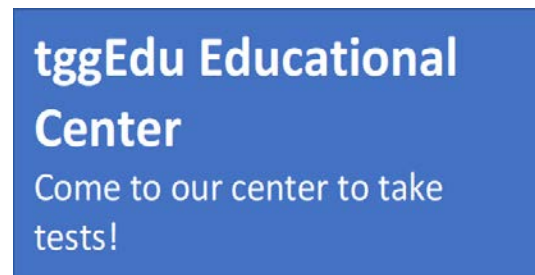
Depicted in the business cards above, the scale on the right is good, as the title is bigger than the text that proceeds it. While on the left, the scale of the title forces the other elements off the card, only showing part of the title.

There are lots more design principles in the world. Yet, one a lot of people have trouble with is **Harmony.** All Harmony details are that all parts of the image/design relate and complement each other, it pulls the image into one unified unit.

Lesson   #2-1   Quick Check

Define the following terms:
Harmony   Contrast   Scale   Alignment

Answer the following questions:

- Why do these principles exist?
- How can you apply/where do you see these principles executed in reality?

Expand your Thinking:

Google images of everyday designs or popular designs, and analyze how these principles are executed.

.
Name 4 design principles.

- .

- .

- .

- .

2. Which principle defines how big an object is?

3. Which principle defines the **space** and its relation to the subject?

4. Which principle defines the amount of space an object takes up?

5. Which principle defines how many times something repeats?

6. Which principle defines the alignment of elements of text on a page?

Lesson #2-1 Activity B

For each element listed, find a REAL-LIFE example. It is OK if the images are copyrighted. You can sketch in the book or use Google.

	Good Example	Bad Example	Good Explain	Bad Explain
Repetition				
Contrast				
Scale				
Harmony				
Alignment				
Proximity				

Lesson #2-1 Quiz

For each question, pick the best element.

Principle	Define
	This refers to how big something is on the page.
	This refers to the differences in color and background.
	This refers to how aligned text/graphics are on a page.
	This refers to how frequent an element/layout appears on the page.
	This refers to how close elements are to one another, including how info is laid out on a page.

Write a 3-4 sentence summary explaining the significance of the design principles:

2-2

TYPE AND COLOR

Main Idea	Terms	Adobe Goals
Typography and Color properties add harmony and details to your design.	• Type • Color • Serif	Demonstrate knowledge of typography and its use in visual design. Demonstrate knowledge of color and its use in digital images.

Type and Color are important aspects of your design. Whether choosing fancy fonts or attractive colors, these elements can make or break your designs. There are a few terms you need to know to use type and color correctly.

Types of Fonts:

Serif	Fonts that look more decorative because of the **serif** on the end of the letters. For Instance, Times Roman is a Serif font.
Sans-Serif	Fonts that don't have a serif on the end. This literally translates to "without serif".
Display	Fonts that are very decorative. For instance, the headings we use for this book are display fonts or BALBOAPLUS PRIMARY

Now that we have reviewed the types of fonts, let's review some principles found when formatting fonts.

Properties of Fonts:

Hierarchy	Organizing text by importance to allow readers to easily find information.
Leading	The distance between the baselines
Kerning	Amount of space between 2 letters *"To Kern" means to adjust the space between 2 letters*
Tracking	Amount of space between a group of letters.

There are a few rules to remember when using type and fonts within your designs:

- Use as few fonts as possible! The more fonts you use, the messier your design will look!
- AVOID FONTS LIKE COMIC SANS, PAPAYRUS, AND WINGDINGS! These are outdated and will NOT look good on high professional designs.
- Use websites, like Adobe Typekit to find web fonts to use in designs vs using the presents on your computer. *Remember, copyright rules still apply to font selections!*

Color is another key element in the design. It's good to use a single set of colors. There is some color sets, based on the color wheel, that designers frequently default to. This also helps increase the harmony of the design *(see Lesson #2-2)*

Monochromatic	One color on the wheel, using various shades of one color.
Analogous	On the color wheel, creates a large triangle of colors.
Complementary	On the color wheel, colors directly across from each other.
Split Complementary	On the color wheel, creates a small triangle of colors.
Triatic	On the color wheel, creates a normal triangle of colors.
Tetradic	On the color wheel, creates a rectangle of colors.

This is a hard concept to grasp, as they are triangles. Be sure to use Google Images to study visuals and how the look. As well, use the video later in the lesson to help study.

There are also some key terms that deal with color.

Hue	A color or shade
Saturation	The power of a specific color in an image or design
Value	The light and dark values within a color.

All these terms are important to understand and grasp, as they will help the harmony of your design, which in the long run will make your design look better.

Lesson	#2-2	Quick Check

Define the following terms:
Hue   Value   Kerning   Tracking   Display   Serif

Answer the following questions:

- Why does font readability matter?
- Why does having a limited amount of fonts matter?

Use the boxes to type an example work in the provided font type, as well as type a basic definition and use of each type.

	Use/Definition	Example
Serif		
Sans-Serif		
Display		

Should you limit yourself when using fonts?

Do opposites attract for fonts? What are some examples?

Fill out the following chart:

	Definition	How do you establish?
Hierarchy		
Leading		
Kerning		
Tracking		

Define the 4 styles of fonts and their uses:

This activity follows a video, located at The Digital Way website, Module #2-3, Lecture slides.

Answer these questions:

What is "Color Theory?"

What is a color wheel?

	Define the Terms
Hue	
Saturation	
Value	

Fill out the formulas for Harmony:

Monochromatic	
Analogous	
Complementary	
Split Complementary	
Triatic	
Tetradic	

List the do's and don'ts of color, and list the solutions.

Now that you have understood how to use the color wheel and color combos, you can now create your own combos based on these rules. One web app, Adobe Color can help with that!

For this activity, you will use a web device to go to **color.adobe.com** and create your own color wheels based on these rules. Then, take the HEX codes (which look like #xxxxxx) and write (or type) it in the table below.

The first one is an example.

Monochromatic	417F1B	4DCC00	61FF00	90FF4C	307F00
Analogous					
Complementary					
Split Complementary					
Triatic					
Tetraic					

Conclusion:

What can Adobe Color be used for?

BEHIND THE IMAGE

| Main Idea	Terms	Adobe Goals
There are plenty of image file types in the world which have various pros and cons. Image resolution and quality may influence with the types of files you use.	• PNG • JPEG • GIF	Demonstrate knowledge of image resolution, image size, and image file format for web, video, and print.

All images have a set of properties. Yet, these can differ between images. For instance, a more colorful image may have a set of different properties than an image that is just black and white. These properties are also known as **Resolution** and **File Type**.

To identify these properties, just look at the file icon on your computer.
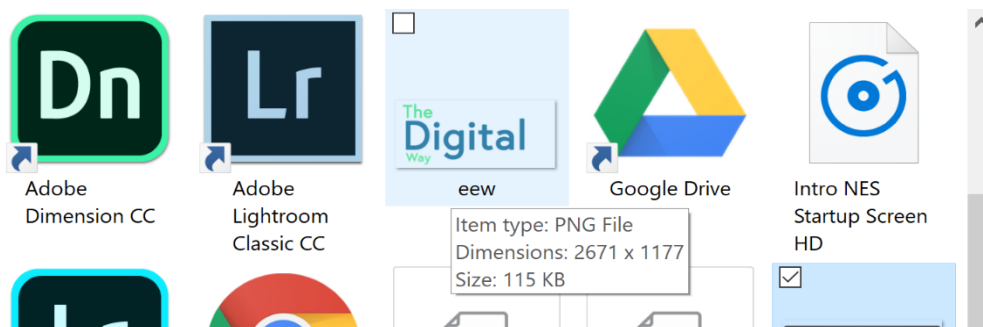
On Windows machines, just by hovering over an image, or right click → properties. This may differ on Mac/Linux.

Resolution (also known as dimensions) is the image size (width by height) which is generally measured in **Pixels.** There are a few common resolutions to remember when designing.

	Width	Height
HD	1920	1080
4K	3840	2160
Letter Paper	8.5in	11in
Legal Paper	8.5in	11in
720p	1280	720
Normal Photo	4in	6in
Email Header	480px	480px

When publishing your design *(see Module #5)*, It's important to be aware of the file type you're going to publish and the file type your using in your design.

Types of Files:

	Define
.gif	Allows for animation, or combination of pictures to create an animation. Allows for
.png	Portable Network Graphics, a very basic and easy file, commonly used on internet
.jpeg	Joint Photographic Experts Group, allows for a lot of info in a small file size.
.tiff	Tagged Image File Format, very large sizes of images, very flexible for color (allows for better printing).
.bmp	Vector, Capable of storing lots of info. File size is bigger
Raw images	Digital info from a camera, have not been processed, so allows for raw data. Must be processed by special software.

Lesson   #2-3   Quick Check

What is the best file type for print?

Lesson **#2-3** Activity A

Fill out the chart below:

	Pros	Cons
.gif		
.png		
.jpeg		
.tiff		
.bmp		
Raw images		

What image type would you use for the best quality, regardless of space?

What image type would you use to print flyers to distribute at school?

What image type would you use to upload quickly to the internet or a webpage?

What image type allows you to animate or combine multiple photos into one?

Answer the following questions:

- What does PPI stand for? How can it be applied to design?

- What math gets you your ppi?

- Describe how the crop tool affects the resolution:

Fill out the table. Be sure to SPECIFY your measurements!

	Width	**Height**
HD		
4K		
Letter Paper		
Legal Paper		
720p		
Normal Photo		
Email Header	480px	480px

MODULE 2 TEST PREP

Fill out this table with the correct image term:

	A single dot in a digital image that is assigned a specific location and color value. Pixels are the base elements for all images in Photoshop.
	An image which creates shapes through mathematical definitions.
	An image which is made up of pixels; also known as a bitmap image.
Bitmap	
Path	
Render	
	The number of pixels per square inch on a computer generated display. The greater the number of pixels per square inch, the higher the quality of the image.

From the words above, insert the one that defines the type of file.

Word	Scenario
	Judy is saving a final draft of her project to send to her client.
	Enrique is creating a new .psd file that is 1920x1080.
	July is creating a new image, which is made up of pixels.
	Using some math, Bill was able to create some shapes on his .psd document.
	Suzy is using a certain color map while she is working in Photoshop.

In the table, name all the principles and their definition.

Principle	Define

Fill out this table:

	Use/Definition	Example
Serif		
Sans-Serif		
Display		

Fill out the following chart:

	Definition	How do you establish?
Hierarchy		
Leading		
Kerning		
Tracking		

Should you limit yourself when using fonts?

Do opposites attract for fonts? What are some examples?

What are the general font styles?

What is the most important aspect of typography?

What fonts should you avoid when creating designs? (name 3)

What is "Color Theory?"

What is a color wheel?

	Define the Terms
Hue	
Saturation	
Value	

Fill out the formulas for Harmony:

Monochromatic	
Analogous	
Complementary	
Split Complementary	
Triatic	
Tetraic	

List the do's and don'ts of color, and list the solutions.

	Pros	Cons
.gif		
.png		
.jpeg		
.tiff		
.bmp		
Raw images		

What image type would you use for the best quality, regardless of space?

What image type would you use to print flyers to distribute at school?

What image type would you use to upload quickly to the internet or a webpage?

What image type allows you to animate or combine multiple photos into one?

What does PPI stand for? How can it be applied to design?

What are some common resolutions?

VISUAL EXAM → MODULE #2

You will be creating another infographic or poster to demonstrate 5 (1 per poster) design principles of your choosing. You may use canva.com or pictochart.com.

Requirements:
- At least 2 copyright free images demonstrating the image on each poster. (SCHOOL APPROPRIATE! That means, no bikinis, shirtless men, etc. If you're doubting if you can use it, DON'T or ASK!)
- Definition and Title of the element
- All posters should be creative, and should, in the sense, demonstrate all the principles with your placement of elements.
- Choose only 1 COLOR PALETTE *(see lesson #1-3)* we have learned from the color wheel to use!
- Choose only 3 FONTS FOR ALL POSTERS, and STAY CONSTANT!

YOU WILL TURN IN 5 IMAGES!

Rubric:

	5	10	15	20
The elements demonstrate the knowledge of the principles				
All 5 principles were correct in definition and examples.				
The color scheme matched what was specified.				
The typography matched and was well executed.				
The file type that was submitted was appropriate for this project.				
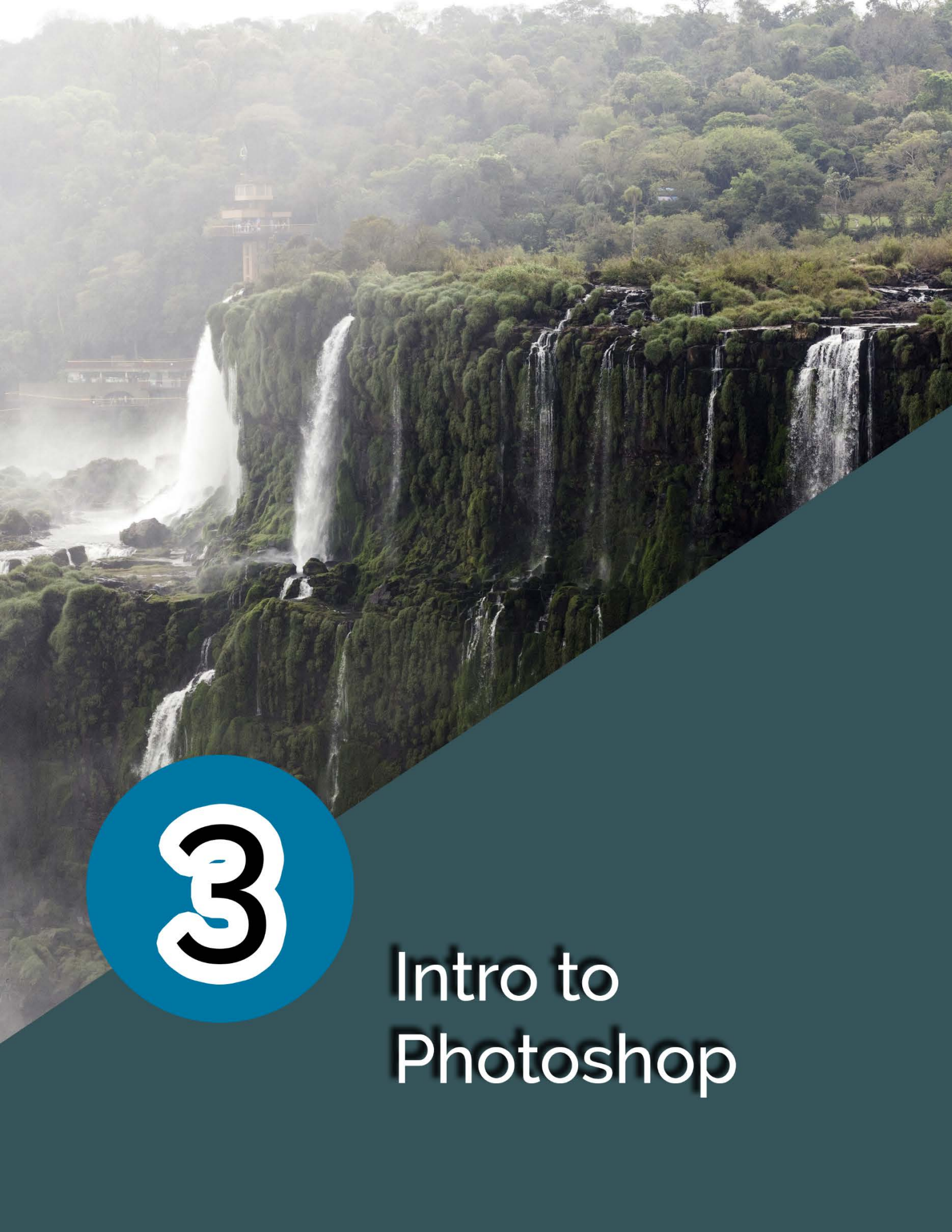
3

Intro to Photoshop

3-1

WORKSPACE

| Main Idea	Terms	Adobe Goals
The Photoshop interface has a lot of functions ticked into the simple UI, and has many panels preforming different functions.	• Layers • Adjustment Layer • Rulers (Ctrl+R)	Identify elements of the Photoshop CC user interface and demonstrate knowledge of their functions and define the functions of commonly used Panels, including the Properties, Layers, Brushes, Adjustments, and Type panels.

Lectures will work a bit differently beyond this lesson. Instead, you will be walk through a tutorial within Photoshop. That's right, you get to open and use Photoshop now! Be sure to follow each step, so you can learn certain functions of the program.

You Will Need:

One .psd File
"Lecture psd.psd"

All files can be found on The Digital Way website.
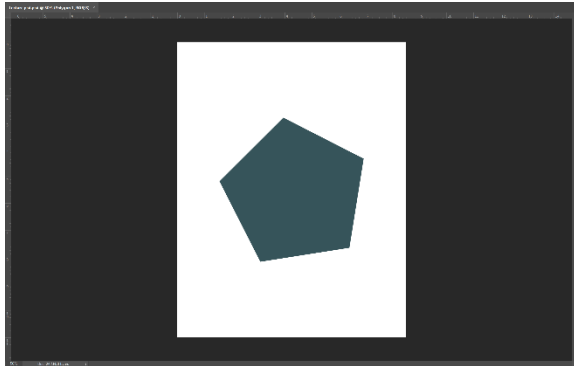
First, let's start by opening the file in Photoshop. All you will see is a Polygon.

Through this tutorial, we will identify some properties of the workspace, and how to use them.

First, let's measure this shape. Go to **View, Rulers, or use Ctrl+R, or Command+R for Mac.**

Well, we want to use some better measurements. Let's change the ruler to Centimeters. **Right-click on the Rulers and click Centimeters**.

Now that we have the rulers in centimeters, let's try turning on and off the polygon. **Find the "Layers" panel, and click the Eye icon on the "Polygon 1" layer.** *Notice how the layer disappears from the canvas.*
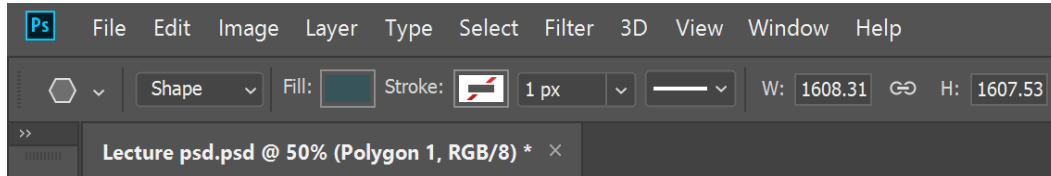
Go ahead and turn the **layer back on by clicking the eye icon on the "Polygon 1" layer.**

That color looks kind of bad for a Polygon. Go ahead and select the **polygon layer.** On the toolbar, find the swatch panel, and choose the **foreground color** (or the one in the front). Change it to a **Light Blue** *(or HEX code #94d6e4)* and confirm the change.

Wait. The color didn't change? Oh. Well, that's the thing, you need to select the shape. We just selected the layer, not the shape. Go ahead and locate the **Shape tool** ⬡ *(we will discuss tools in the next lesson).*

Sometimes, with the shape layer selected, you can use the "Properties" panel to change the color.

Now that the shape is selected, we can use the workspace at the top to change the fill.
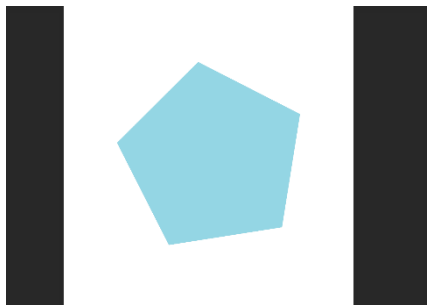
Go ahead and locate the **Fill option** on the top bar.

Once clicking, this pallet menu will be loaded. The most recent colors will be shown at the top. Since we made that "mistake" earlier, the color should be the first color.

Just in case the blue is not in the recent colors, Change the to a **Light Blue** *(or HEX code #94d6e4)* and confirm the change.

This is what the shape should look like now. Now, we are going to add a filter to the image using the Adjustments window

Open the Adjustments panel, either by going to **window → Adjustments, or by looking for the panel Adjustments on the right side,** above the layers panel.

TIP: You can adjust and customize your workspace under the Window tab.

TIP: You can remove "Swatches" by **right clicking on a swatch.** Plus, clicking on the Gear icon allows you to save your current layout and share.

TIP: Don't see the adjustments panel? Add it under the Window option.

Choose the brightness/contrast adjustment ⚙ and it will create a new layer. All the layers below this "adjustment" layers will be changed based on this adjustment. A new window, known as the adjustments layer, will come up. Try sliding the brightness and contrast up and down, and notice the changes.

Click the "Auto" button on this panel. This will adjust the settings automatically. **Verify the brightness is 31 and the contrast is 56.**

Now, the shape should look brighter. There are a few others panels we will discuss before finishing this lesson up.

The brushes panel allows you to add and create brushes. For some lessons, you may use the brush tool to create and choose brushes.

Let's try using the brushes panel. Select the **Brush Tool** 🖌 and open the brushes panel. We're going to create a new brush. Open **"Brush Settings"** Brush Settings on the brushes panel. Create a brush with the following requirements:

- Shape Dynamics: Jitter 50%
- Dual Brush: Size 30px
- Noise: Checked on
- Color Dynamics: Hue Jitter: 20%

To save this new brush, click the **New icon** 🗗 and name it **"lecture1brush" and make sure "Include Tool Settings" and "Include Color" are checked.**

Select a color, and try painting on the shape. Notice how that differs from a normal brush? Undo the changes of paint until it's gone.
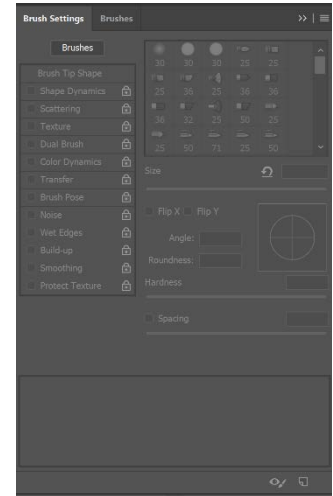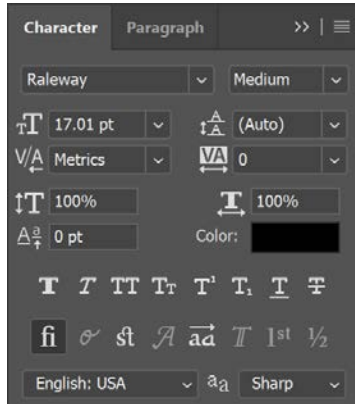
The character and paragraph panel allows you to manipulate the type properties.

Remember the terms Kerning, Tracking, and Leading? This panel allows you to edit and manipulate these properties.

Let's try using the characters panel! Locate the **text tool** T. , and click on your canvas to create a text box.

Type "shape" on the canvas. Then, go to **Window** and open the **Characters** panel. With the text selected, edit the properties to the following:
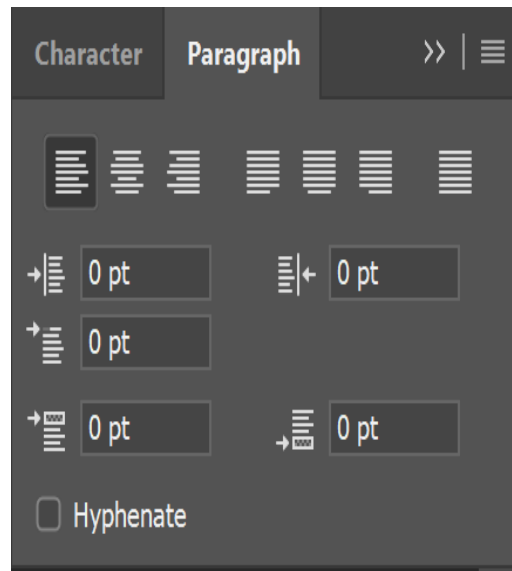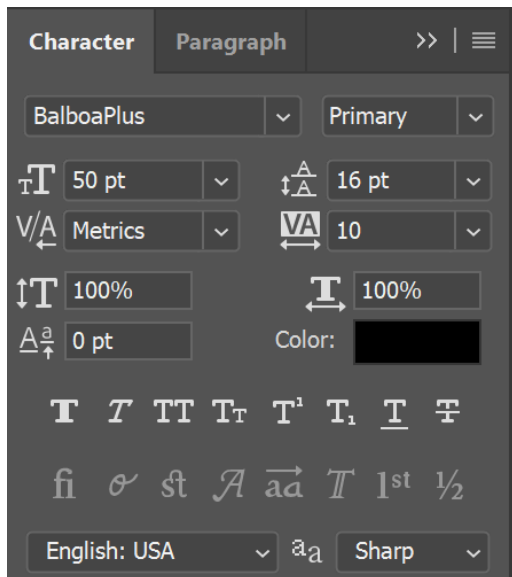
Notice how the text changes. Fell free to try manipulating any of these measurements and see the changes.

And that's the workspace! We covered some common panels, yet as you delve into these lessons, you will get to know more of the workspace through using them for various tasks.

Lesson #3-1 Quick Check

How do all these panels differ?

Lesson **#3-1** **Activity A**

Look at the provided image, and describe the basic functions of each space.
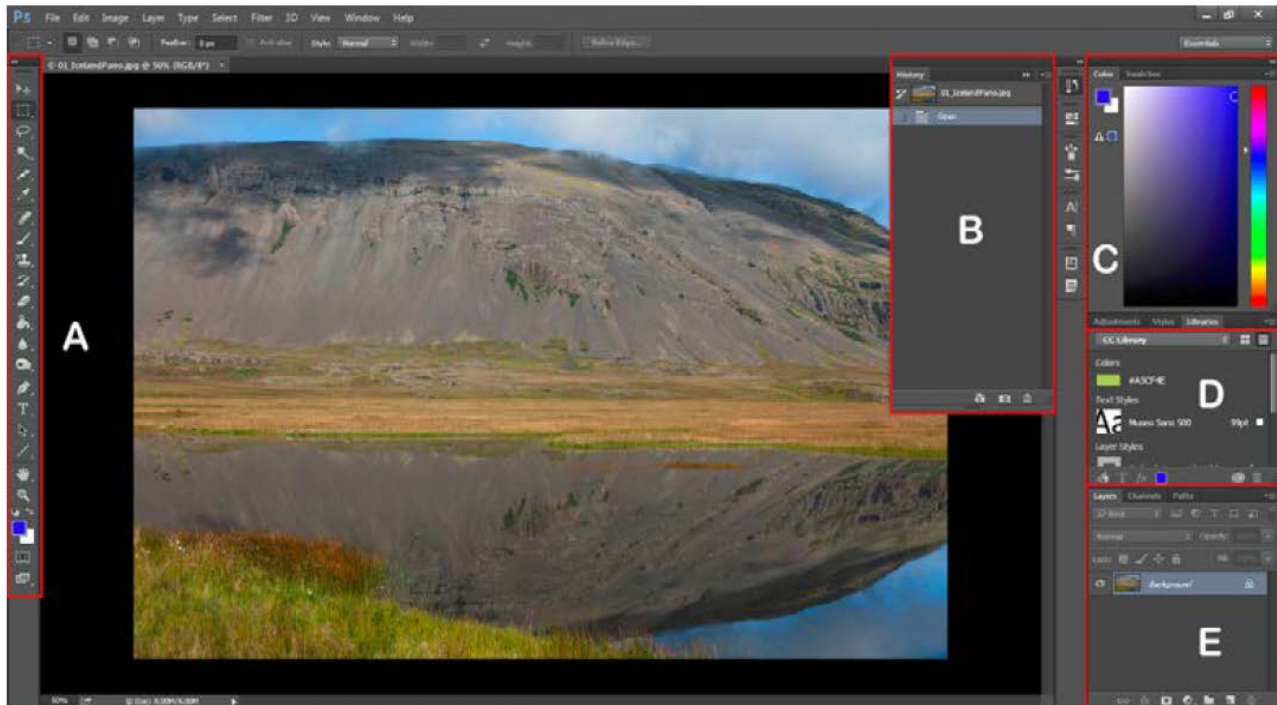
A	
B	
C	
D	

Vocabulary
Using the following table, describe the following terms.

Properties Panel	
Type Panel	
Customize	
Adjustments Panel	
Layers Panel	
Brushes Panel	

Synthesize
Read the prompt, and using your Photoshop knowledge, describe what happens next.

Bill is customizing a panel to meet his needs.

SELECTIONS AND TOOLS

Main Idea

The heart of Photoshop comes when use tools and create selections. It's best to know all the tools and decipher what tool is best for what job.

Terms

- Selection
- Quick Selection
- Magic Wand

Adobe Goals

Define the functions of commonly used tools, including selection, drawing, painting, type, and vector shape tools.

You Will Need:

PSD

One .psd File
"Lecture psd 2.psd"

One .jpg File
"hanks.jpg"

All files can be found on The Digital Way website.

In this lecture, we will discuss all the tools Photoshop has to offer.

Open the provided file. Notice this image includes 4 shapes.

We will use these shapes to create a sunshine with a face in the middle.

First, let's learn to duplicate a shape. Select the layer "A" in the layers panel. **Right Click and click Duplicate Layer.**

The shape is duplicated. Do this to create rays around the sun. Your image should look like one depicted to the left.

Next, we need to rotate the triangles to make the triangles look more like rays from a sun. To do this, we will use the Free Transform tool. Select a ray, and go to **Edit** (in the File Window), and click **Free Transform** (or click Ctrl+t/Command+T). Rotate all the rays to make the base of the triangle face the circle.

Your image should look like the one to the left.

Now, we are going to select Tom Hank's face and paste it into the sun. Open Hanks in a new window by goung **to File → Open**, and locating the file.

There are many ways to select items through a lot of tools. Let's play with some selection tools to get a feel of whats best for the snerio.

Locate the **Lasso tool** . The lasso tool allows you to create a selection by "lassoing" a part of an image. Let's try lassoing around Tom's head.

Once lassoed, a selection will be generated. Copy the selection and paste on the same document. Now, turn **off the background layer** (eye in layer panel).

The image to the left is what the lasso tool produced. It's not the best, but it could be better. **Undo (ctrl+alt+z)** until the layer goes away.

Up next is the **Magic Wand** . Try selecting a part of Tom's face, then Copy, Paste, and view the selection you made.

Well, that does not look right. Let's try getting to the quick selection tool. Go ahead and undo the selection.

Now, hold down (or right click) the **Magic Wand** tool, and select the **Quick Selection tool** . This is like a brush for selecting. Brush over Tom's face and copy+paste the selection.

Well, that looks like a pretty solid selection. Now, let's do a few edits before making Tom the sun.

Let's add an adjustment layer of Hue/Saturation. Set the hue to +33, saturation to +100, and lightness to +30.

This will make Tom's face bright, like the sun.

Remember back in previous lessons about the definitions of hue and saturation? The lightness can also be known as Value.

Next, let's prepare to make Tom a part of the sun.

Go to **Edit → Canvas Size**. Change the measurments to Width: 6cm and the Height: 10cm. This will center the head on the canvas. This is a good way to adjust the canvas if you crop an image. And that is exactly what we are going to do.

Locate the **Crop Tool** . Crop the canvas so it just is Tom Hanks.

After cropping, the image should look like to the left.

Now, we will select the image using another tool.

Locate the **Rectangle Marquee** tool and select the entire image. Make sure the head layer is selected and not the background. After selecting, go to Edit → Copy Merged. This will copy your selection. (Ctrl+C WON'T WORK here)

Next, head back to the sun graphic. Select the circular part of the sun. After selecting the circular part of the image, go to **Edit → Paste Special → In Place**. This will paste your image into the circle.

Go to **"Free Transform"** and make the image fill the entire circle.

Go ahead and save the .psd.

On the next page, there is a quick diagram of all the tools and functions. Note that there are A LOT more tools than whatwe just preseted. As you go through the activities, you will start to discover more functions of the tools.

Let's review some of the other tools and there functions.

Move Tool: Moves elements on the document

Marquee Tool: Selects a geometric part of

Lasso Tool: Selects a free-formed part of

Magic Wand: Selects a color/similar area of document
Quick Selection: Selects an area determined by user

Eyedropper: Selects a color of the document

Brush: Paints on the document

Clone Stamp Tool: "Clones" another element,

Eraser Tool: Erases part of the layer

Paint Bucket: Fills selected areas

Text Tool: Type on your document

Pen: Create custom shapes and paths

Path Selection: Selects paths

Shape Tool: Creates shapes

Hand Tool: Pans over parts of image

Zoom Tool: Zooms on a part of an image

YES, there are more tools. See more tools online at https://goo.gl/3fUZbq

Lesson **#3-2** **Activity A**

Using the start files, follow the directions to create a new image.

1. Opening the Image
   1. Drag and Drop "puppy.JPG" into Photoshop. DO NOT create a new document
   2. Checking for Copyright
   3. Go to File --> Info, and check for Copyright.
2. Selecting the Dog
   1. Use the **"Quick Selection Tool,"** by holding/right clicking the Magic Wand tool, and select the dog's head.
   2. Copy (ctrl+c/command+c) the dog's head, and paste (ctrl+v/command+v) back onto the palette.
   3. Turn off the background of the image by using the **eye icon** in the **layers panel**. Refer to **FIGURE A-1** for what your workspace should look like.
3. Adding a Background to the Dog Head
   1. Drag and Drop "sunny.jpg" into Photoshop as a NEW PROJECT, NOT TO THE CURRENT WORKSPACE. (or FILE --> OPEN, then select the "sunny.jpg")
   2. Go to File --> Info, and check for Copyright.
   3. Use the "Rectangle Marquee Tool" to select the entire image. Copy (ctrl+C or command+c or file-->copy) the selection
   4. Paste the image into "puppy.JPG"
   5. Position the background behind the dog heads using the Layers Panel. Refer to **FIGURE A-2** for what your workspace should look like.
4. Position the Background
   1. With the "Layer 2" or Background selected, use the Move tool to move the image in view of the tree.
   2. Go to Edit, and Free Transform to position the entire image on the canvas (this WILL look warped, but it is OK for now) Refer to **FIGURE A-3** for reference.
5. Adding Text
   1. Open the Type Tool.
   2. Drag the Text tool onto the sky, and within the new text box, type "Olly" into the box
   3. Change the Size to 36pt, the Minion Pro font, a center alignment, and a color of #f06838
   4. Conform the changes, and verify that your window matches **FIGURE A-4.**
6. Customizing Text
   . Right click the text layer, and click "Blending Options"
   1. Check Bevel and Emboss, with a Depth of 1000%, a size of 5px and 0px for soften. Notice the changes.
   2. Check Drop Shadow with an opacity of 100%, a distance of 4px, a spread of 1%, and a size of 8px.
   3. Check Stroke with a size of 6px, outside, and an opacity of 100%

4. Confirm all changes, and click OK. Make sure your new image matches **FIGURE A-5.**

7. Adding a Gradient
    1. Use the gradient tool, use the upper toolbar to select the type of gradient you want, which should be a Black and Transparent gradient.
    2. Create a New Layer, and move it to the top of the Layer Window.
    3. With the new layer selected, from the bottom left to the upper right, drag the tool. Confirm your changes match with **FIGURE A-6.**
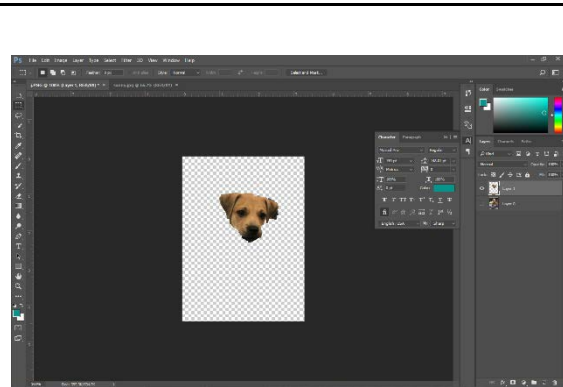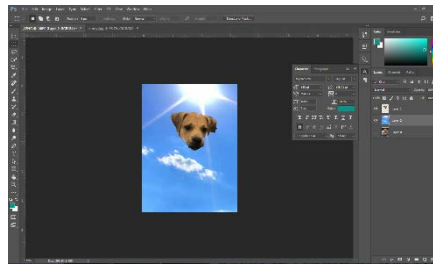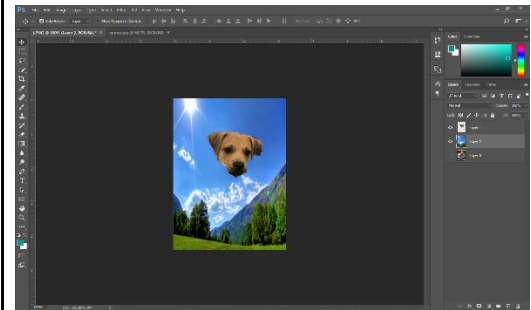

FIGURE A-1

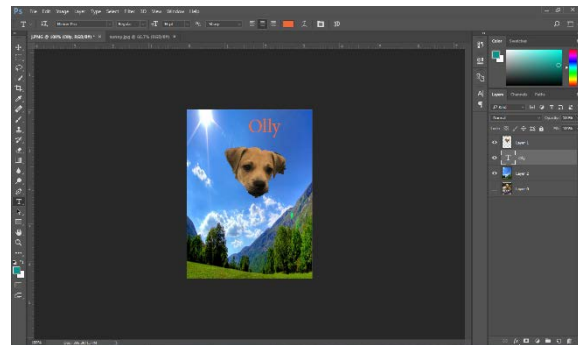FIGURE A-2
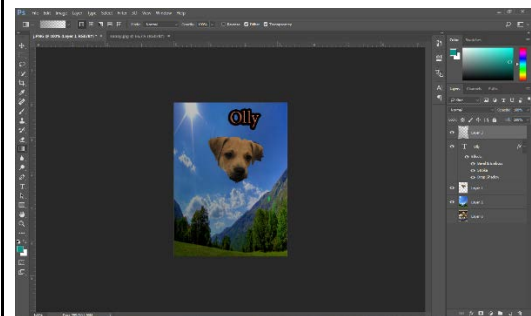

FIGURE A-3

FIGURE A-4

FIGURE A-5

FIGURE A-6

Lesson **#3-2** **Activity B**

Using your Photoshop skills and start files, mimic the following graphic. You may use your own font, colors, BUT MUST MIMIC THE LAYOUT, including ERASING DETAILS!

Pay attention to all the details while you complete this assignment.

Lesson **#3-2** Activity C

Using the provided start files, follow the steps to create the design.

1. Open "Activity C Start 3-2.psd" into Photoshop.
2. Change the circle color to a dark green color.
3. Change the letter spacing of the words "Old Soda Shop" to 160, so it matches the width of the main title.
4. Change the text alignment to right.
5. Open "Tessie.jpg" in Photoshop.
6. Equip the Ellipse Marquee tool (hold down/right click the rectangle marquee tool)
7. Start in the center and hold alt.
   This allows the circle to expand around where you started.
   Try to create a full circle around the hands WITHOUT going off the canvas.
8. Once you've made a good selection Ctrl+C, or copy.
9. Go back to "Activity 3-2 C Start" file and paste the hands image on the canvas. Position it to the left of the words, and shrink the image so it fits using the Free Transform option.
10. Bring the text back onto the ellipse, so the white text does not blend with the background.
11. Make the text smaller so it fits into the ellipse (yes, you could also do this with the Free Transform tool)
12. Select the text and use the Warp Option to apply a "Bulge" effect with a +50 bend.
13. Use the Text tool to add a new line of text that says, "Serving Sodas to you and your Grandma since 1885!". Make it center-aligned, the Baskerville Old Face font family, regular.
14. Go to Blending options by right clicking the text layer in the layers panel.
15. Check the "Drop Shadow," and make the drop shadow Black, a opacity of 41%, a 90 degree angle (using global light), a distance of 3px, a spread of 20%, and a size of 6px. Click OK.
16. Go to Image → Canvas Size, and change the height to 10 Centimeters.
17. Create a group of elements by selecting the layers of text, the image, the ellipse, and the title text by shift clicking all the images in the layers panel, and clicking the group icon. (you can also right click and glick "Group from Layers")
18. Shift click all the elements in the group and move them to the top of the page, while centering it in the center of the canvas. (use the pink guides to help you)
19. Create a text box (by using the text tool, and dragging across the page. The next page will detail what you need to put in that text box.
    While dragging the text box, note the pink margins. Try to align the text box with the outer left edge of the circle.

The Warp Option looks like this:

The Group Icon looks like this:

Text Box #1: Our Locations: Cafe in the Bronx 1300 Maple Street New York, New York Seasemie Avenue 1923 Abbibile Lane Coffee, Ohio

20. Right click the text box layer you just created in the layers panel and click "Duplicate Layer" to duplicate the text box.

21. After duplicating, drag text box to right align to the ellipse.
Notice the guides in relation to the ellipse.

22. Type the following in the text box:

Text Box #2: Contact Us: Cafe in the Bronx (813) - 818 – 9183 Seasemie Avenue (891) - 819 - 8281

23. Change the header of the Text Box to a larger font to make the header bigger than the body of text.

24. File → Quick Export as PNG

Below is what the final image should look like:

Ps The **Digital** Way

Vocabulary
Define each word, and the significance it has.

Magic Wand	
Quick Selection	
Brush	
Type Tool	
Blending Options	

Connection to Art
How does Photoshop and Physical art differ? How are they similar?

3-3

EVERYTHING IN BETWEEN

Main Idea	Terms	Adobe Goals
Using filters and masks can enhance your image and make some functions in Photoshop easier.	• Layer Masks • Filters • Brush Tool	Demonstrate knowledge of layers and masks. Manage colors, swatches, and gradients. Manage brushes, symbols, graphic styles, and patterns.

In the last lesson, you learned about Photoshop's tools and their functions. In this lesson, we will cover other useful tools to help in your photoshop endeavors.

You Will Need:

 One .png File "dino.png"

 One .jpg File "landscape.jpg"

In Photoshop, **open "landscape.jpg" and "dino.png".** Remember to put them in separate windows (don't place the file).

Turn on the rulers, *see Lesson #3-1*, if they are not on already.

Go to "dino.png" and use the **Quick Selection tool** to **select the dino.**

After selecting as much as you can, look for the Select and Mask... option. This will allow us to refine the mask.

Paint over areas you want to keep. Press Alt or use the option to select between areas to keep and delete.

This option will allow you to refine your selection to take out small pixels of your selection.
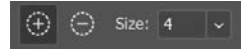
Next, copy the selection, and paste into Landscape.jpg. Use the free transform tool to scale the dino into view.

Try to position it like the image to the left.

Next, we will introduce masks. Masks are a way to hide a part of an image behind another image. These masks are handy to make an image fade on an edge, or just to hide a part of an image.

Let's add a layer mask. For this, let's review the layer workspace.

Layers

Kind

Normal | Opacity: 100%

Lock: | Fill: 100%

Layer 1

Background
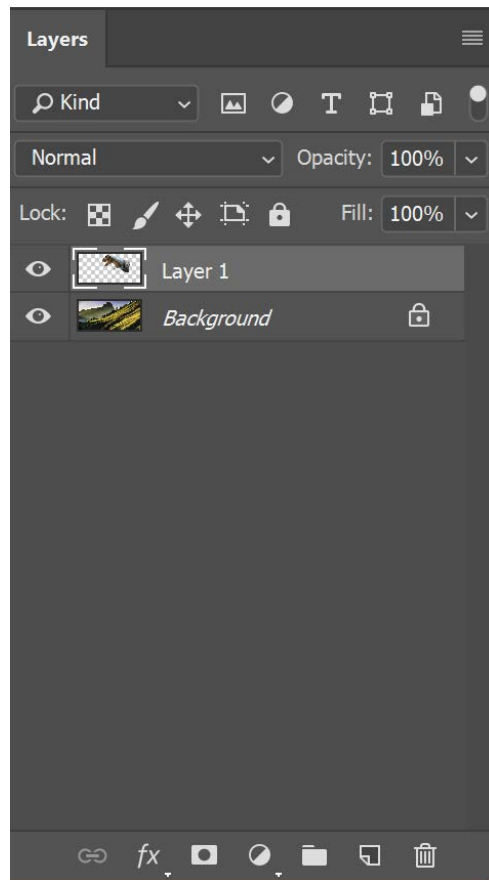
Filter Layers

Change Transparency

Locked Layer

TO UNLOCK:
Double click the Lock
or Right Click → Convert to Smart Object

Link Layers

Add a Layer Style

Add a Layer Mask

Add an Adjustment Layer

Create a Group

Create a new Layer

Delete a Layer

The bottom bar is very helpful for adding layer masks and quickly adding adjustment layers. For this, make sure the Dino layer is selected, and click the "Add a Layer Mask" option.

Notice in the layers panel how a white box popped up next to the layer? This is the Layer Mask window, indicating a layer mask is ON for this layer. Now, we will use the Brush Tool to create the mask.

With the brush tool in use, **make sure the foreground color is black, and the layer mask is selected in the layers panel.**

First, we need to change the brush to make the edges appear softer. **Go to the brush size panel** **, and change the hardness to 0%**

Paint on the Dino so that he appears to be hiding behind the first mountain. If you mess up, change the foreground color to white, and change your brush size.

Make sure yours looks like the one to the left.

Now, go to File → Quick Export as .png, and that finishes this lecture.

Another important thing to know is using the swatches and graphic styles panels in Photoshop.

See the digital presentation online for more info on these panels and how to use them.

Follow the provided directions and your knowledge of Photoshop to complete the final product.

1. Drag and Drop "tom.JPG" into Photoshop.
2. Drag and Drop "alec.JPG" into Photoshop.
3. Navigate to "tom.JPG" Use the lasso tool to select Tom's face, NOT his hair, just the eyes and the mouth. After selection, copy (ctrl+c/command+c).
4. Paste (ctrl+v/command+v) Tom onto "alec.JPG" and resize, so that Tom's face lines up with Alec's. You may want to reduce the Opacity of Tom, so you can line up efficiently.
5. Unlock the "background" layer, which should be Alec's photo. Duplicate Alec's photo (on layers panel, right click-->duplicate).
6. Back on Tom's cutout face, use a selection tool to select the ENTIRE face (tom's)
7. Navigate to the FILE bar, and find "Select" Go to Modify-->Contract. And use 5px as your value, click OK.
8. On "Layer 0 Copy" or the copy of Alec's face, with the selection still selected, click DELETE. This will delete the selection you just made from Alec's face.
9. Select "Layer 0 copy" AND "Layer 2" by Ctrl+click the layers.
10. With the layers selected, go to your file bar, go to Edit → Auto Blend Layers, and use the "Panoramic" option. If all goes well, you will have an Alec Hanks!
11. Using the Text Tool, add your first and last name to the image in your choice of font. Make sure it is visible.
12. As always, quick export as PNG

Lesson **#3-3** Activity B

Using a tutorial video, you will learn how to use masks to cut out hair. Use the provided model photos on The Digital Way Website.

See the tutorial video at https://youtu.be/TJR20e7JcBg

You will use the same technique of "Select and mask" like you did in the Lecture.

Lesson **#3-3** Activity C

Fill in the table with the correct vocabulary definitions:

Layer Masks	
Ruler Guides	
Rule of 3rds	
Auto Blending	
Lasso Tool	
Swatches	
Color Management	

What Photoshop tool could you compare to real life?

Using your knowledge of Photoshop and the provided Start File, follow the directions to create the final image.

1. Open "pet.jpg" in Photoshop
2. Apply a Filter of "Grain" by going to Filters → Filters Gallery, with a intensity of 28 and a contrast of 37. Change the Grain type to Vertical.
3. Now, let's change the dog's fur color. If the layer is locked, unlock it.
4. Go back to the Filters window, and press the eye to turn the filter off.
5. Select the dog, using the selection tool of your choice.
6. Look for the "Color Replacement Tool" and paint over your selection in a blue color.
   Adjusting the Tolerance may get the fine details.
7. Deselect your selection.
8. Use a Selection Tool to select the computer.
9. Use the Color Replacement tool again to paint the computer red.
10. Deselect the selection of the computer and select the small wallet/phone to the right of the computer.
11. Use the Color Replacement Tool again to paint the wallet green.
12. Deselect the wallet selection, and create an adjustment layer (Layer → New Adjustment Layer → Vibrance)
13. In the Properties Panel, change the vibrance to +78, and the saturation to -11.
14. Cut out the blurred background.
15. Open "arch.jpg" in Photoshop
16. Select the entire image, and Ctrl+C, or copy
17. Paste the background to the image, and reorder the layers so the dog layer is on top.
18. Export Quick as a .png

Your final image should look like this:

MODULE 3 TEST PREP

Look at the provided image, and label each panel.
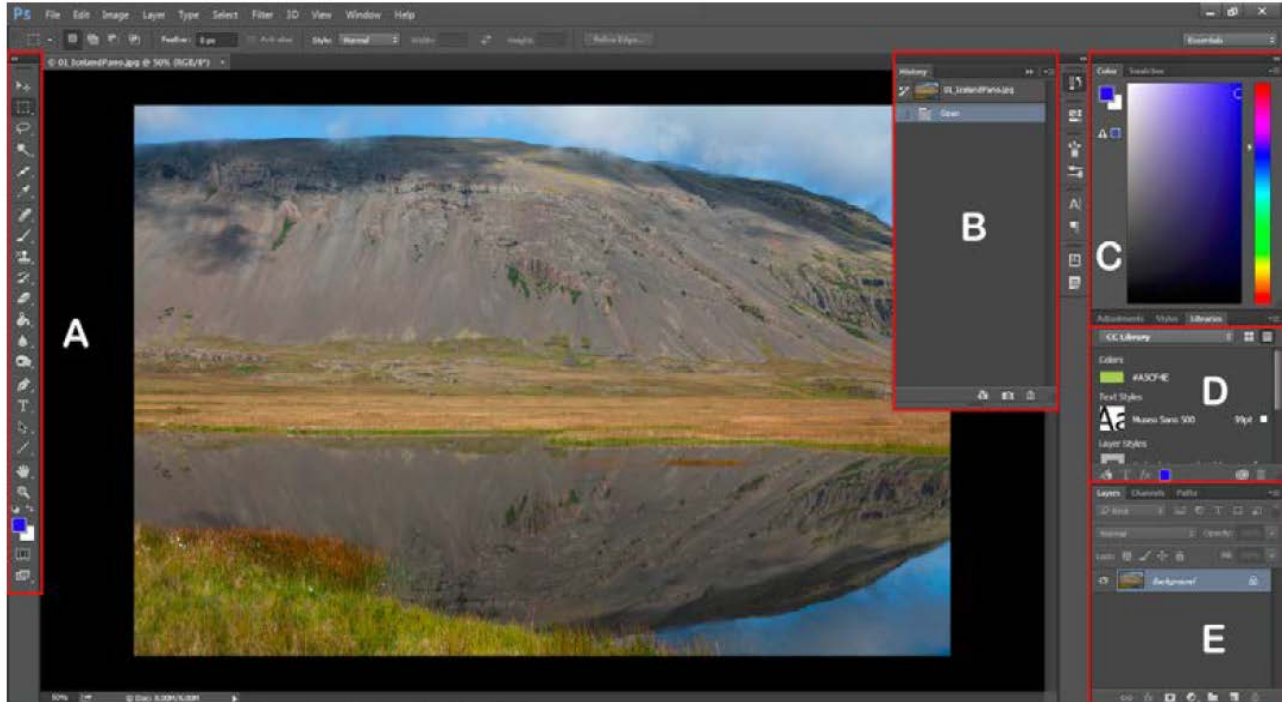
A	
B	
C	
D	
E	

What panel would allow you to change or edit colors?

What panel can you change or create new layers and masks?

What panel can you change your tools on

Look at the provided image, and describe the basic functions of each space.
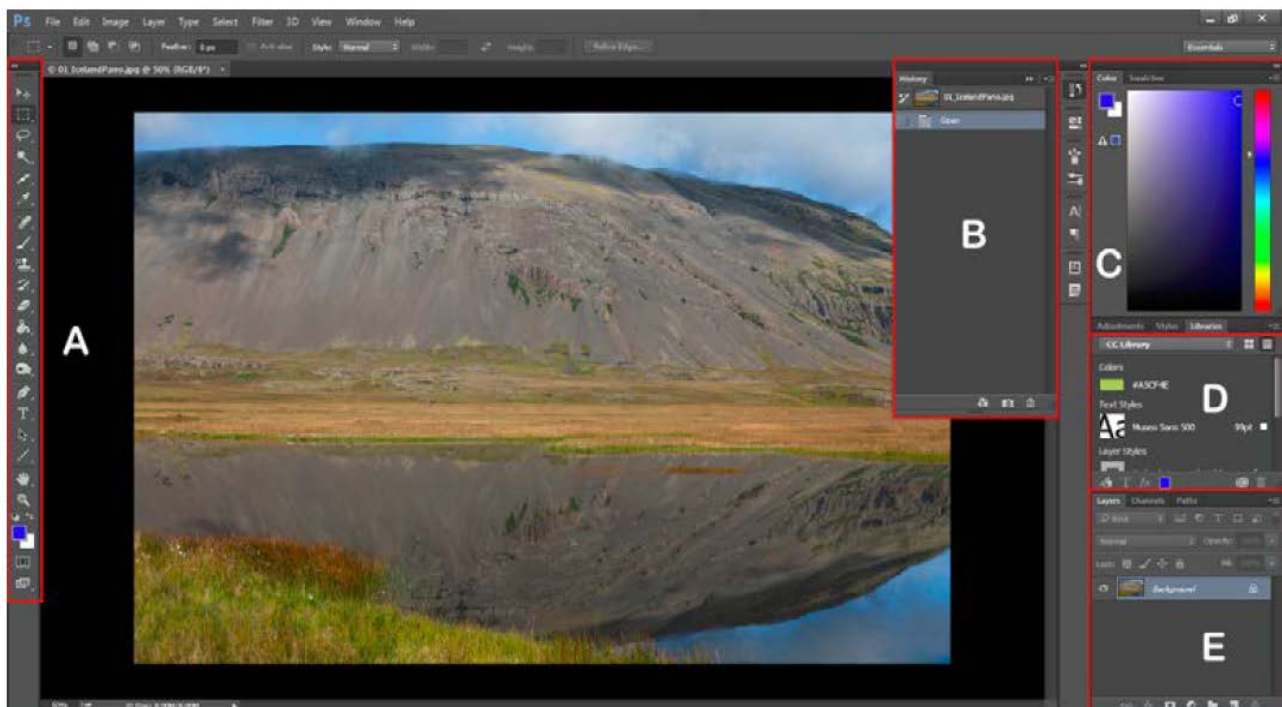
A	
B	
C	
D	
E	

Using the following image, label each tool and the function it has.
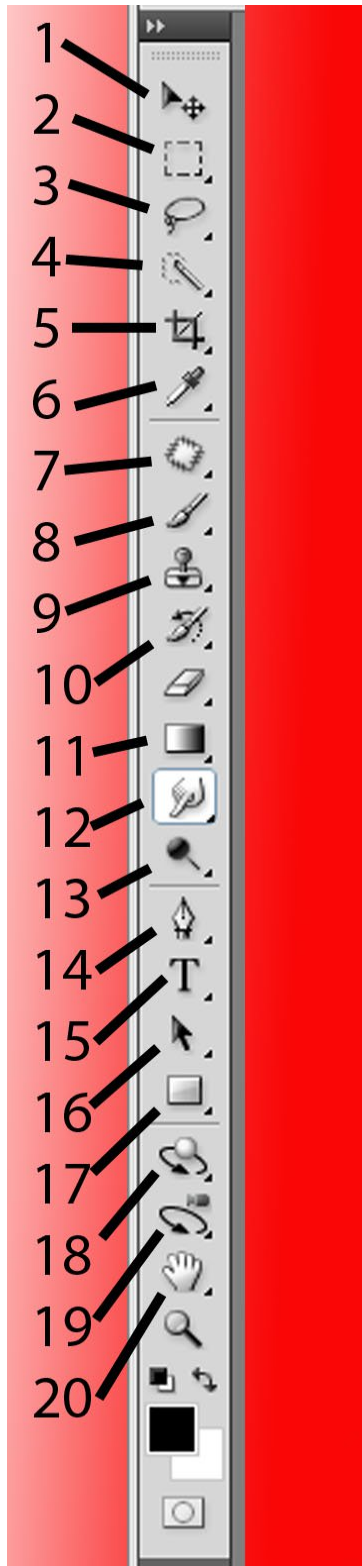
	Normal	Right Click	Function
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

How do you customize the workspace?

How can you rearrange your workspace?

How do you turn on your rulers/guides? How can you change the measurement?

What is the sole purpose of masks?

What color deletes/erases on the mask? What does the inverse?

How do you change/manipulate colors? What workspace panel allows you to do this?

How can you manage gradients? What is a gradient?

What is a swatch? Where can you change/select swatches?

VISUAL EXAM → MODULE #3

Using your knowledge of Photoshop and copyright information, you will be creating a 3-page menu for a restaurant client.

Your menu must include:
- 3 Pages, excluding cover (3 separate images turned in together)
- 3 Images of Food (remember, copyright!)
- Text, font is large enough and readable by viewers
- At least 1-layer mask

Be sure to export as a PNG, AND send the .psd file with your menu. THIS WILL BE THE FIRST TIME YOU CREATE A PROJECT, so follow these directions:

- Open Photoshop
- Click "New Project"
- Make the dimensions Letter (which is under Print, or just put in 8.5x11in)
- Click OK

You will need to do that 3 times.

RUBRIC:

	5	10	15	20
The images demonstrate the 5 principles of design				
All requirements were met in full				
No images were copyrighted				
The menu was creative and well designed.				
The menu had corrected grammar, spelling, and good English.				

4

Heart of Photoshop

4-1

STARTING FROM SCRATCH

Main Idea	Terms	Adobe Goals
Designers who are creating original designs start with a blank canvas and drag and place elements on the canvas.	• Place • Document	Create a new project. Import assets into a project.

Photoshop is not just for editing and manipulating photos, it can also be used to create original graphics, like you did in the Visual Exam for Module #3. For this lesson, we will simply learn how to create a new document.

First, when opening Photoshop, you will be prompted to create a **new document.** You can also go to **File → New** to create a new document. Then, you can select a present resolution or type in your own resolution.

After that, you can save the resolution as a **preset,** and name the preset for future use.

When you have your new document open, it's time to place an element, like a photo. Go to **File → Place** and locate the image. You can also drag and drop the image onto the page.

Finally, review concepts from Module #3, like **masking, selection tools, and free transform.**

Presets on top, customize on the right.
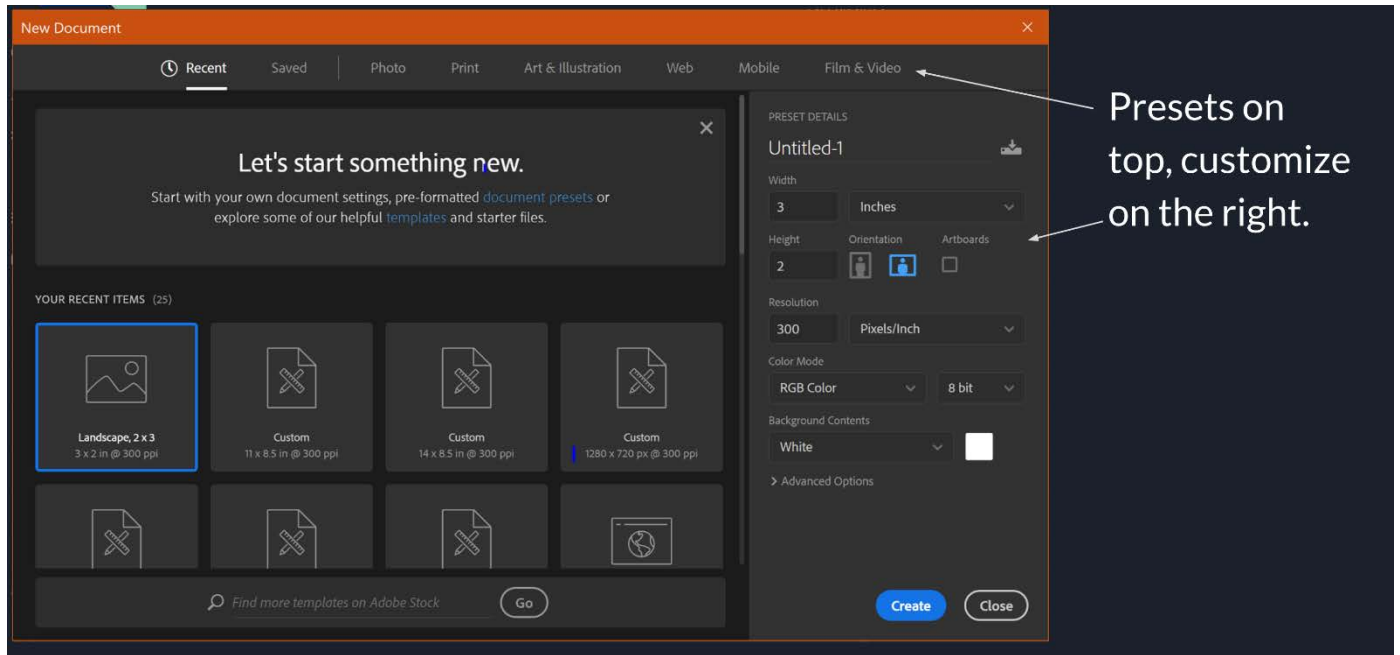
When creating a new document, you don't have any elements to start with. To add external elements, like photos, go to File → Place, or just drag and drop.

Lesson #4-1 Activity A

Make a Monster!
You will create an original monster, ONLY USING TOOLS INSIDE PHOTOSHOP!

Getting Started:
- Default Photo Size

Requirements:
- Be Creative!
- Only use tools inside Photoshop!

Lesson #4-1 Activity B

You will create a portrait of yourself, in a unique way.
Use a web service, like YouTube to look up Photoshop Portrait Tutorials.

You will need a photo of yourself.

Using you Photoshop skills, follow the directions to create the design.

1. Create a Letter Document in Photoshop
2. Use the Rectangle Shape tool to create 4 shapes across the canvas. Notice how the 4 rectangles won't fill the entire canvas.
3. Use the crop tool to make the canvas smaller, so the rectangles fill the entire canvas,
4. Open Hanks.jpg into a new window
5. Select Hank's face and body, or delete the background
6. Copy Hank's body
7. Back in the new document, select the first rectangle on the left, and Paste Into the rectangle.
8. Use Free transform to make Hank's fill the entire rectangle.
9. Duplicate the rectangle you just pasted into, and place the layer on top of the hank's rectangle.
10. Change the Opacity to 50% of the top rectangle.
11. Lock the rectangle layer, NOT the photo layer.

Complete these steps for each photo and each rectangle.

Your image should look like this, the colors may differ

4-2

PIZZAZZ TO THE IMAGE

Main Idea	Terms	Adobe Goals
There are small features to remember to add more filters and "pizzazz" to your image.	• Filters • Graphic Styles	Use basic retouching techniques — including color correction, blending, cloning, and filters — to manipulate a digital image.

In Photoshop, there are a few ways to make your images, projects and elements better, by using advance techniques. We recommend watching some YouTube Videos for this section, as watching how to do it vs explaining in text is better.

This section will reinforce skills you've learned in the past section.

Watch the videos at:
https://goo.gl/YvVYky

Colorful Scene!
Using the tips on Color Correction you just learned, you will use one a web image to correct the color and add a filter to make the image LOOK BETTER THAN IT DID BEFORE.

Requirements:
- Use at least 1 filter
- Color Correction is Required
- 1 Adjustment Layer, *see Module #3*
- The image MUST look better than it did before.
- Attempt in Cloning or Blending

Post Project
Quick save as a .png file, AS WELL, you will complete a Write Up sheet, explaining the process of creating the image (see resources in the back).

Follow the steps, using the provided start files, to create the image.

1. Open **"senior.jpg"** in Photoshop.
   1. Use a tool to cut the seniors out of the background. Delete the background.
2. Open a new Letter sized document.
   1. Paste the Senior picture onto the letter paper. Put in the lower left-hand corner.
   2. Apply a layer mask to the image. Paint the top of the head, so the hair looks more natural, not a straight edge.
   3. Use the Type tool, and type "Senior Activities" in a 76pt, Baskerville Old Face font style. Center align the text.
   4. Using the Constantia font style, type the following phrase with the same alignment:

Are you bored?
Want to get off your rocker?
Now is the time!

5. For the text above, make the less prominent message 46pt font, and the overall message 76pt font.
6. Below the text box from above, add another text box. Using the same font face as above and a size of 26pt, use this text, with the same alignment:

Off My Rockers! Senior Recreation Center
781-8381-3899
West Avenue, Austin, Texas

7. Apply a background to the entire image using the hex code of #78d4e8
8. Add a stroke bordering the entire image of 7px, white.
9. Make the image of the seniors go behind the stroke.

10.   Apply a color balance adjustment to make "senior.png" look more like the background, making it bluer.
11.   Use the Custom Shape tool to add a light bulb icon to the right of "seniors.png"
12.   Move the light bulb icon behind the seniors.
13.   Add a copyright to your image, using your name.

4-3

CREATING VECTORS

Main Idea	Terms	Adobe Goals
Creating vectors, or custom shapes and icons is mainly done using the pen tool and its variants.	• Vector • Pen Tool	Create a vector drawing, such as an icon, button, or layout.

In this lesson, you will learn how to use the Pen tool to create vectors and icons. First, let's practice with the pen tool.

Open the "Pen Practice.psd" and follow the directions bellow:

Once open, on the top, it will show you how to create the shape. I'll explain how each shape is formed here.

First, find the Pen Tool, and go to Artboard 1and prep to trace. When you click on your mouse, you create an anchor, or the end point of a line. The space between the two anchors is what creates the line.

TRACE:

Notice the straight line. The pen tool creates lines all variants, whether curved or crooked. Holding the SHIFT key ensures your line is straight.

Next, let's try a zig-zag motion. Click on wherever there is a up or break in the mountain, remember not to hold down the mouse, that will be in the next step.

TRACE:
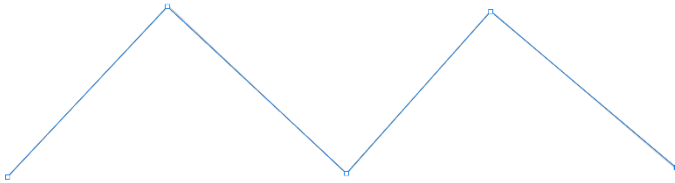
Clicking multiple times creates one unified shape, joining the anchors together to create a closed shape.

TRACE:
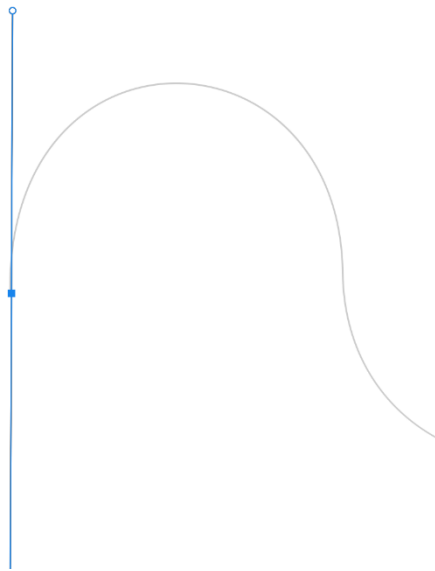
Now, let's create some curves. Since you've learned how anchor points work, now we will learn what a breezer (or slope) is. Image it like a wall, and the line is like a ball, bouncing on the wall. The breezer helps create the curve.

The breezer differs than a normal line. The ends have opened, hollow circles. To create a breezer. HOLD the mouse down, and the ends will extend proportionality.

TRACE:
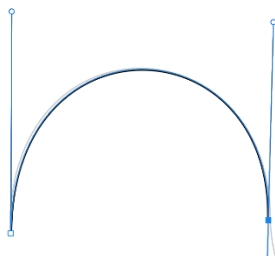
Now, add an anchor point when the circle ends, and add another breezer. The space between the 2 breezer anchor points creates a curved line, based on the height and angles of the breezes.

TRACE:
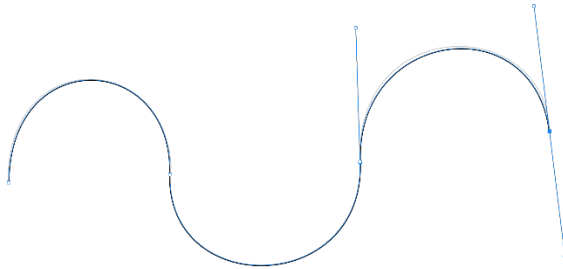
Using the breezers is a process of trial and error, so keep at it as you finish the two remaining lines.

TRACE:
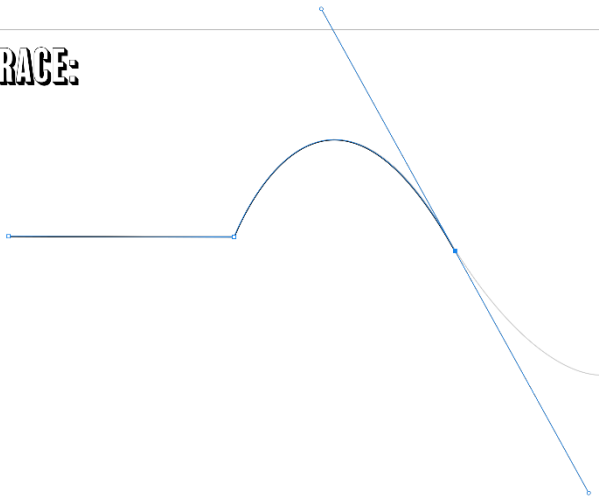
This one is more of a trial and error. Start by creating a straight line, then add a negative breezer, which is quite long, to create that slanted slope. Note that you only need to create one breezer, as shown in the picture.
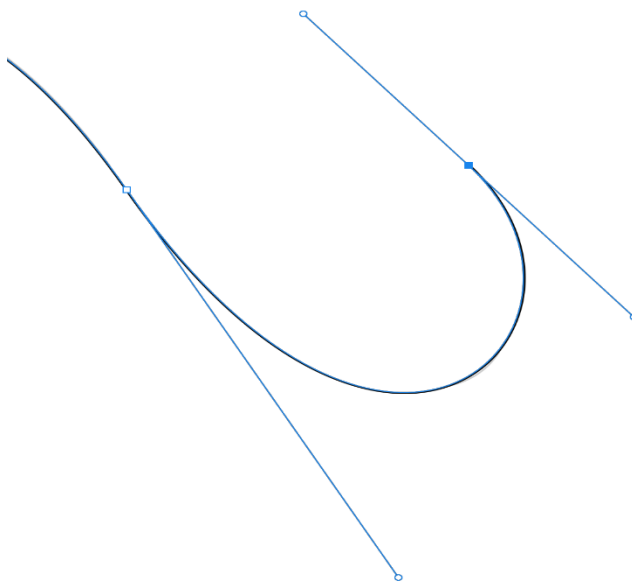
And voila! The path is complete. The peen tool takes some getting use to, but once your use to it, it can do some amazing things! Next, we will intro you to the Curvature pen tool to create vector icons and shapes.

You Will Need:

One .psd File
"Lecture psd 3.psd"

Notice that the file is blank. This is on purpose. First, find the pen tool and hold the pen button, and select the Curvature variant.

Now, with your mouse, click points to create a circle. These points are called **Anchors.** The curvature pen allows us to add curves to the pen. The line created between these anchors is called a **Path.**
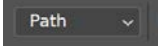
Now that we have a path, let's try typing some text onto the path. Use the text tool to type onto the path. An icon will appear (swirly line) when you can type.

Type something cool on the path.
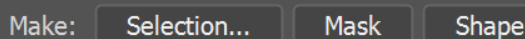
The text will wrap around the circle path you created.

Undo so the text goes away. Now, let's convert the path to a shape.
Reselect the Pen tool. Then, go to **Path** option, and select "Shape" from the drop-down menu.

Nothing happened? Well, this option is to change your pen tool's function. To convert a path into a shape, we will have to try something else. Undo until the original path returns.

Now, with the path selected, find the **Make: Selection... Mask Shape** option.

Select "Make: Shape" and the path that is selected should turn into a shape!
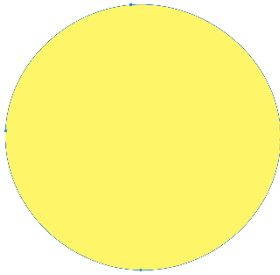
Now we need to edit the shape properties. Either use the "Properties" panel, or use the "Shape" tool to edit the fill. Make the fill a bright yellow.

See the image to the left for what your shape should look like.

Now, change the tool to the Pen tool [pen tool icon]. On the circle, create a mouth.

When you hold the pen tool, it will create a curve. It's best to click to add anchors, and a shape will form from those clicks.

Next, use the curvature pen tool to create circle for an eye.

Now, to create the other eye, we will attempt to create a new shape by rotating it so it stays proportional to the other eye.

Ctrl+C/Command+C the other eye, paste, and line the new up to your original eye.

Go to Free Transform and HOLD SHIFT. This will allow a constant/unchanged X and Y axis. Drag it so it goes across the other eye.

And, that's it! Yours should look like the one to the left. (hopefully with a better mouth).

The pen tool takes patience to master, but once you do, it is one of the best tools to use in Photoshop!

Lesson   #4-3   Activity A

Icon Set

You will be creating an original Icon set in Photoshop.

There will be 2 Photoshop Canvases:
- Icon Formation
- Icon Layout

Dimensions for each Canvas:
- Icon Canvas (256x256px)
- Layout (Normal 8.5x11in)

You will create the icons on the Icon Formation panel, then lay them all on the layout workspace.

Requirements:
- AT LEAST 9 icons (with one constant color palette and style).
- Can be original ideas or from popular apps
- Must be ORIGINAL or CHANGED IN SOME WAY!
- Use the Pen Tool!

Submit BOTH .psd files and a .png of your layout panel.

Juan wants to redesign this poster for his club after school:

CHESS (AND CHECKERS) CLUB!

WOO!   EVERY MONDAY AND FRIDAY
AFTER SCHOOL!
WEE!

LOTS OF FUN PRIZES AND FUN
FRIENDSHIPS!

WOW!

SOOOO MUCH
FUN! - BILL

You have been tasked with redesigning this poster. Pay close attention to the principles of design, images you use on the design, and text size. The poster is a letter sized poster.

IT MUST maintain the same meaning, and include information about the club (dates, club name).

MODULE ④ TEST PREP

How do you create a new project?

What are common terms related to creating a project?

How do you import assets into a project? (name 2 ways)

What panel allows Creative Clouds users to access their cloud assets? (see here)

Name all the tools in the selections:

What menu allows you to manipulate or change selections?

What tool/option allows you to transform images?

Where do you add masks? What is the purpose of masks?

What is one tool that allows you to correct an image?

What is an adjustment layer? How can you change or manipulate one of these layers?

Give an example of a vector image. What is the tool commonly used to create these?

What is a vector image?

What panel allows you to manipulate type?

How do you add type to the image?

What is one general rule of filters?

Where do you find filters?

BONUS: Non-Destructive Editing

Use the following link to review non-destructive editing. Fill the table based on this link.

Tool	How is it Non-Destructive?

BONUS: Creating Smart Objects
Use this link to review what Smart Objects are.

What is a smart object?

What is one benefit with working with Smart Objects?

Fill out the following table based on the Adobe reading:

	Embedded Smart Object	Linked Smart Object
Benefits		
Uses		
Data		

Name some of the alterations that will alter the pixel data:

PLUS:
Be able to rename, group, lock and link layers.

Movie Poster
You will create an original movie poster, starring YOU!

Basics:
- Paper size 8.5x14in
- Default color mode and ppi

Requirements:
- MUST feature you somewhere on the poster in a creative way
- Must have color
- Must use text on the bottom, like a traditional movie poster
- Must have an original title

5

Finalize your Project

5-1

EXPORTING

Main Idea	Terms	Adobe Goals
Exporting images from Photoshop can be done in many ways.	• Export As • Quick Export	Prepare images for export to web, print, and video. Export or save digital images to various file formats.

You already know file types and the best file for the situation, and now, we will briefly introduce how to export files in Photoshop, and after that, you will have needed to learn everything for the Adobe Certified Associate exam, most of it at least.

All exporting takes place under File → Export. There are 3 main options for export:

- Quick Export as .png
- Export As
- Save for Web (Legacy)

Export As:
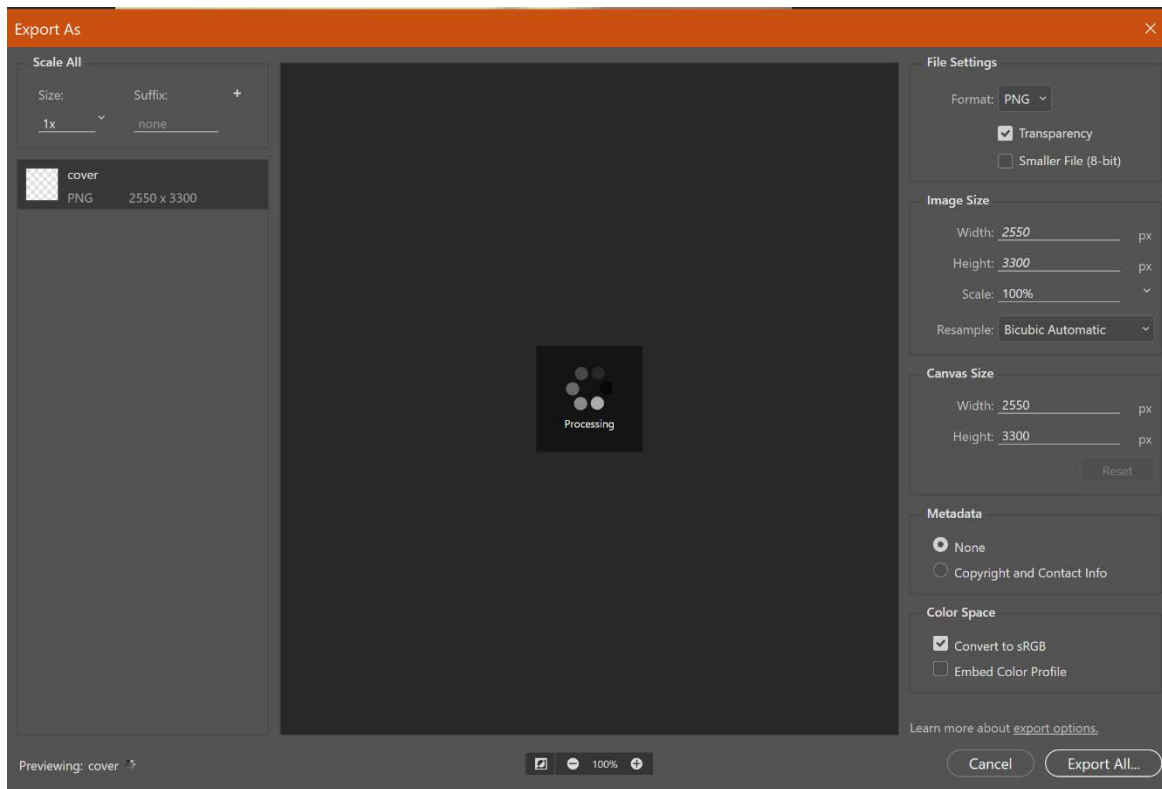
This is the easiest way to export an image. You can choose your file type, and basic settings. For a more complex method of exporting, exporting for web would be a better option.

Save for Web
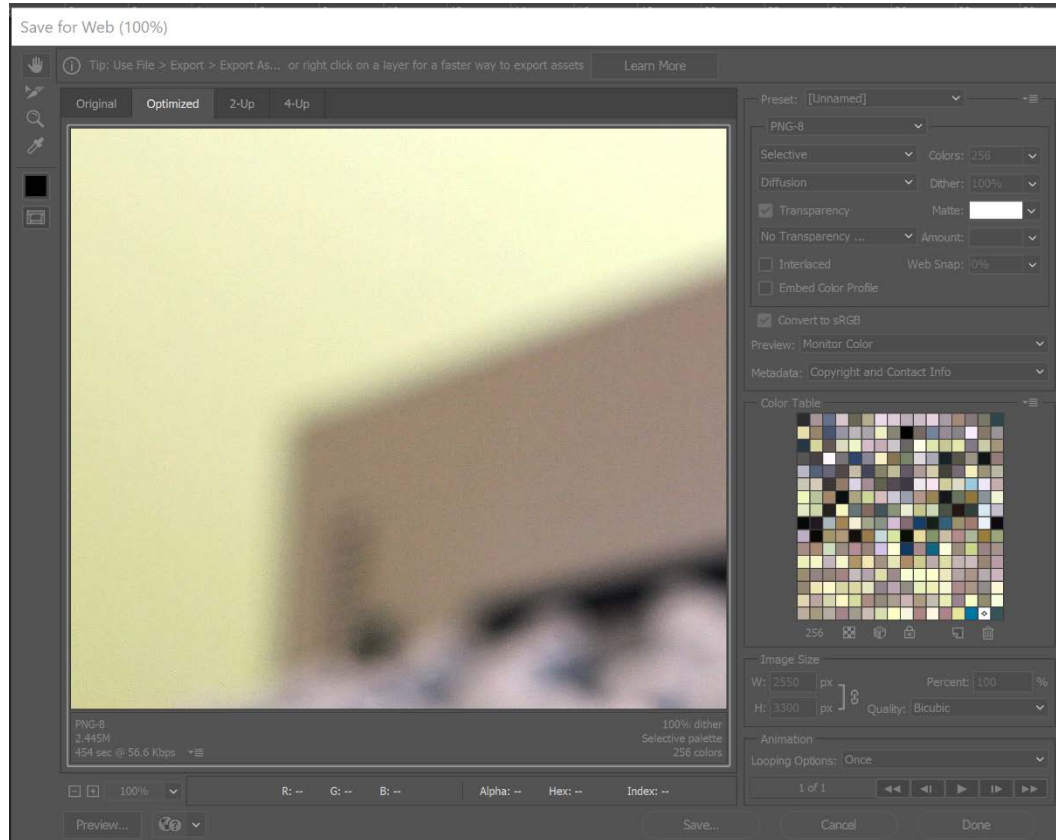
This is the best option for a more diverse method of exporting. This allows for more customization and Ctrl over the final file.

Printing can also be done by going to File → Print, or Ctrl/Command+P.

Be sure to pay attention to what the client needs as the final product!

STUDYING FOR THE ACA EXAM

Main Idea	Terms	Adobe Goals
Studying for the Adobe Certified Associate Exam can be done in many ways.	• Study	Do good on the exam!

Well, you did it. You've finished what I had to offer you for to prep for the Adobe Certified Associate exam. Some may wonder, what does the exam even look like? According to the official Adobe Certified Associate exam guide, it details these details:

Exam Structure

The following lists the topic areas for the exam:
• Setting project requirements
• Understanding Digital Images
• Understanding Adobe Photoshop
• Creating Digital Images Using Adobe Photoshop
• Publishing Digital Images Using Adobe Photoshop

Number of Questions and Time
• 40 questions
• 50 minutes

The 40 questions will range from visual demonstration questions and basic matching terminology questions. For instance, there may be a question where you match design principles to there respective definition, or there may be a question where they ask you to lock a layer in the Photoshop program by doing it in a simulation.

These questions can be hard, as there may be multiple ways to complete a task, but they want one single way. Just remember to keep trying and remember your basic workspace to navigate.

Now that you've grabbed as much info as you can from this book, what can you do now? I recommend using the Adobe Certified Guide, as it has some useful study tools and activities that we may not have covered in this course. Some other websites, like GMetrix, which is a paid service, offer official released tests from years past that allow you to get a sense of the questions they will ask, and just a tip, some of the questions the ask on the practice exams are questions on the real exam.

The exam is hard, and you ill need to study, especially the visual demonstration questions, as those will require you to ooze all the specifics out of you. Remember to study and prep by practicing the activities I've and Adobe has provided you with!

6

TGG Education

Using Adobe Lightroom

ADOBE LIGHTROOM CC

Main Idea	Terms	tggEdu Goals
Adobe Lightroom allows designers and photographers to see and manipulate color.	• Lightroom CC • Lightroom Classic	Students will recognize the significance of Lightroom and how it connects back to Photoshop.

Adobe Lightroom may seem like an odd piece of software to have by novice designers. Yet, it offers so much more than the average designer may first realize. Lightroom allows designers and photographers to manipulate color and apply dynamic filters to the raw image, unlike Photoshop, where one may scale an image or manipulate and apply filters to it. Lightroom can also import photos to your computer from your camera, replacing the computer function, and imminently allow you to apply filters once the import is complete.

In the 2018 release, Adobe launched a new version of Adobe Lightroom, dubbed Adobe Lightroom CC which overhauled the process and UI. Adobe left the old Lightroom alone, calling it Lightroom Classic. The tggEdu Photography Mastery exam primarily focuses on the basics of Lightroom CC.
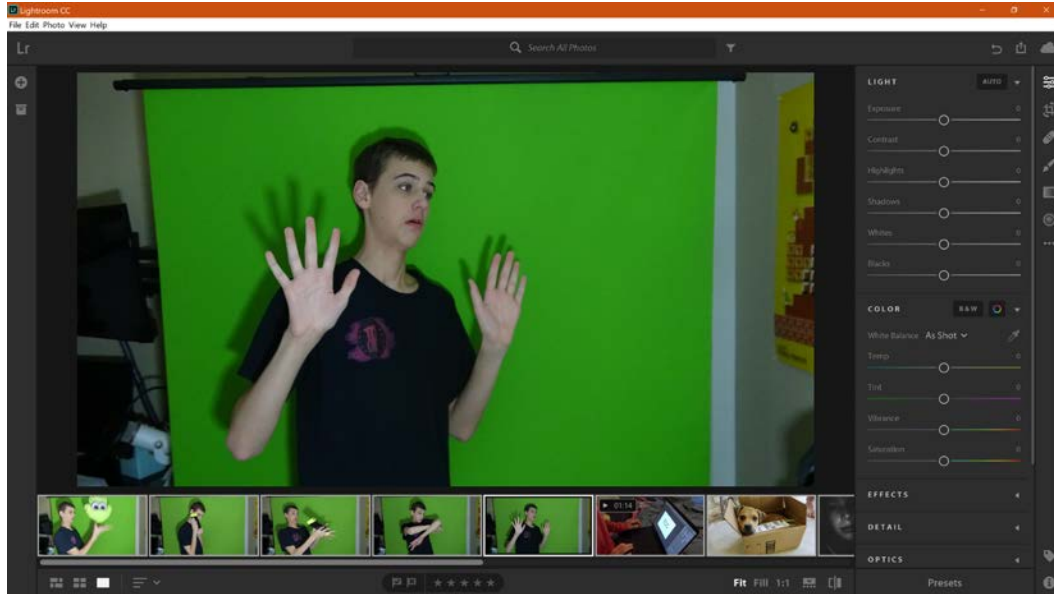
The Lightroom Layout looks like this, your pictures on the left, and edits on the right. Try opening a photo yourself.

The main toolbar looks like this:

Edit – Edit the content of your photo

Crop and Rotate

Healing Brush

Brush

Linear Gradient

Radical Gradient
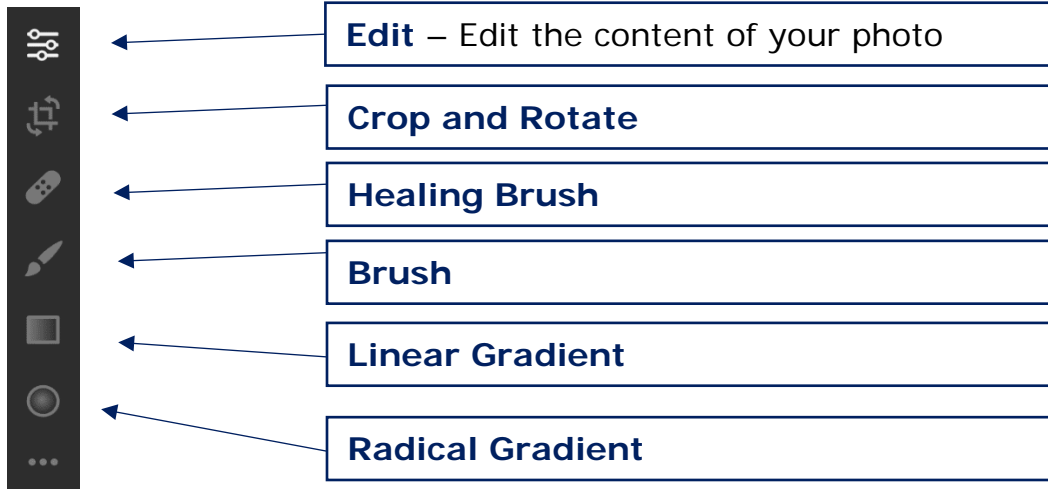
There are 5 main options to manipulate and edit the color and detail of your photos:

Light
Color
Effects
Color
Geometry

Edit

Crop & Rotate

Hopefully you know what cropping is by now. This option allows you to crop your image to include or exclude certain details.

Healing Brush

The healing brush is kind of like the clone stamp tool, it allows you to heel some of your image (blemishes) or it can act like the clone stamp tool, replacing some of your image with another part of the image.
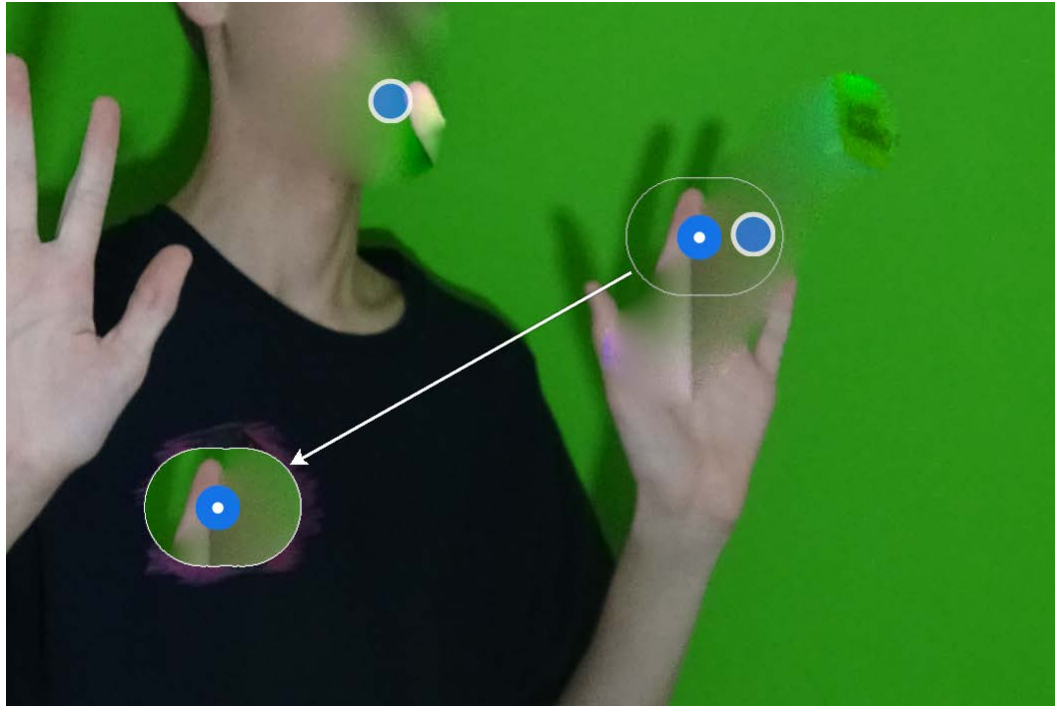
Notice the arrow shows what is being replaced with what. The finger and the green replace the logo on the shirt.

Brush

Next is the brush. This tool allows you to paint a certain area with different edit effects. For instance, say you have a part of an image you want more exposure on than the rest of the image. You can use the brush tool, and paint the area of the image you want more exposure on. This can apply to any of the filters presented in the edit tool area.

Linear Gradients apply a gradient of edited effects. Like the brush tool, Linear gradients allow users to use the same editing tools to apply a gradient. For instance, you can apply a gradient to move from a high to low vibrancy.
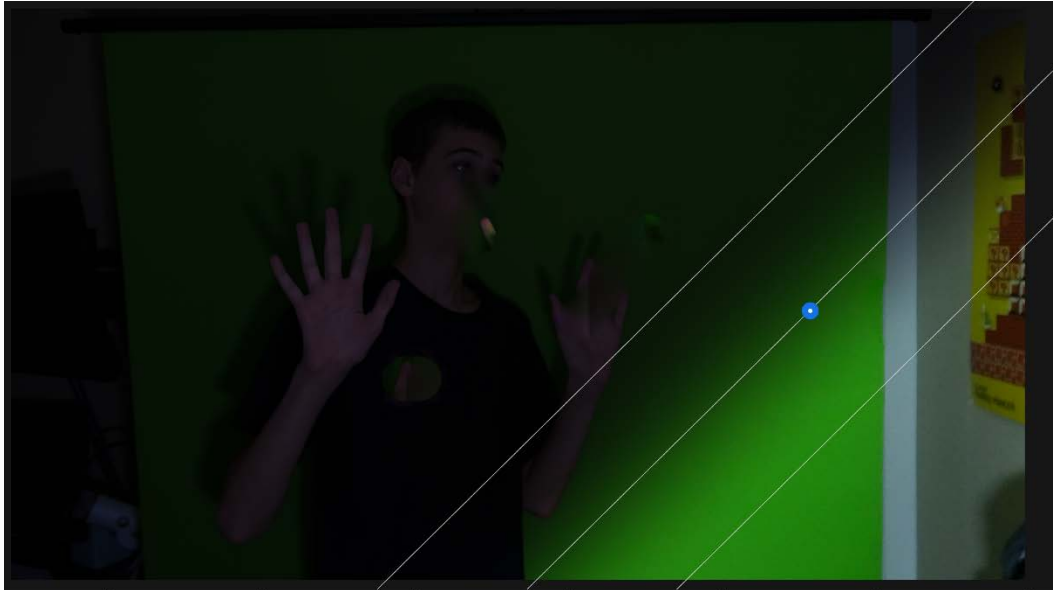
The line represents the end of the gradient, and notice how the gradient can be changed from edge to edge.

A radical gradient works in the same manor a linear one does. Instead. The gradient is a radical, circular gradient.

STUDYING FOR THE TGGEDU EXAM

Main Idea	Terms	Adobe Goals
Studying for the tggEdu mastery in Photography and Design Exam can be done in many ways.	• Study	Do good on the exam!

The tggEdu Photography Master Exam can be done in only one way: Study. As a tggEdu Instructor, I know what will be on the exam, I even wrote some (ok fine, ALL) the questions on the exam. This certification is nothing to brag about and really can't be put on your resume, but it's still nice to have to show your achievement. Some tggEdu students may be required to get this certification to pass Photography classes.

Our MC/Reasoning exams are prefect examples of what tggEdu exam questions may be like. The test is designed like this:

- 30 Questions
- 1 Hour to Complete

15 Terminology Questions (Domains 1-6)
15 Visual Determination Questions (Domains 3-6)

Terminology Questions are strictly key terms you should know, for example, the design principles and there definitions. The Visual Determination questions test you on how to complete tasks in programs without doing them. You could have to describe how to do the task in words or pick from predefined answer choices.

1
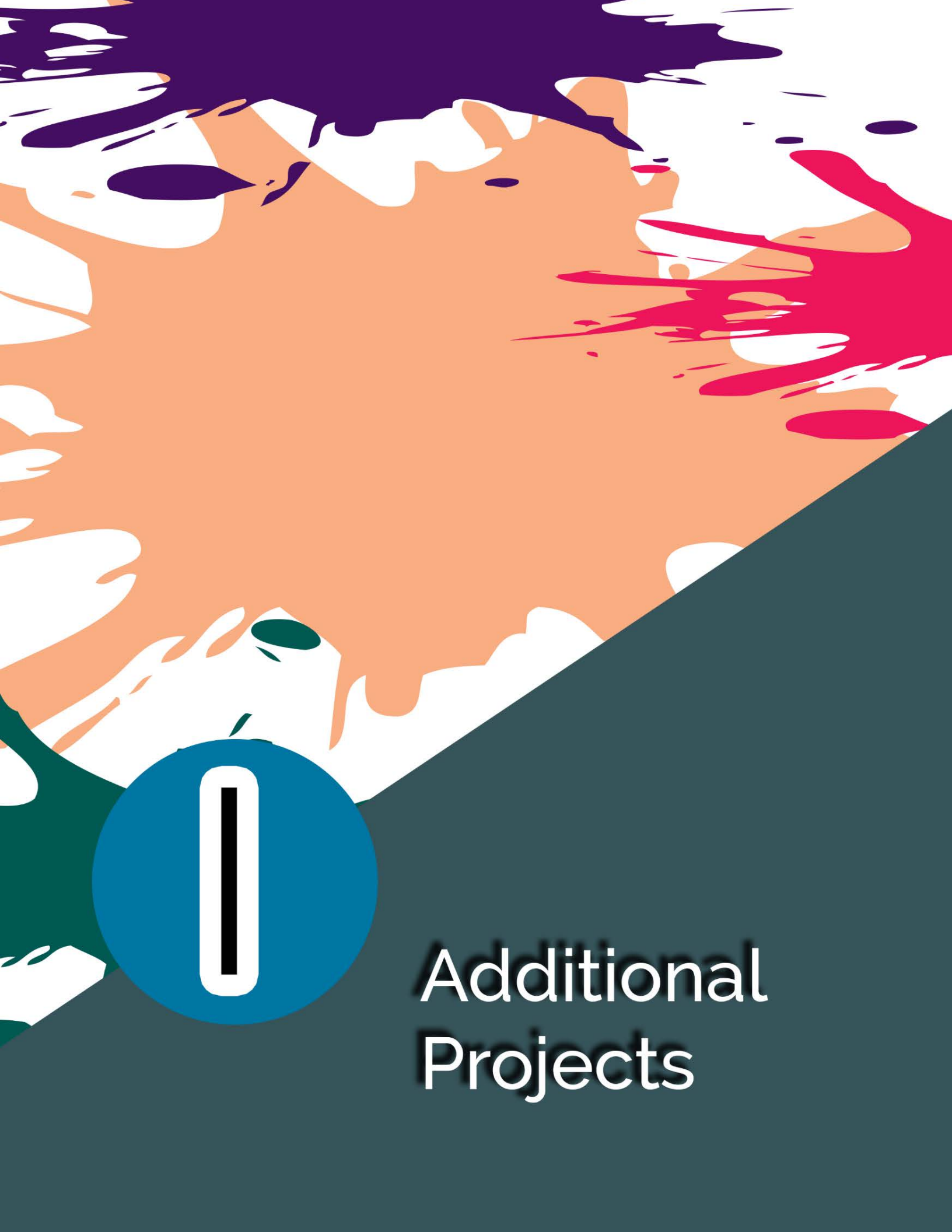
Additional Projects

ADDITIONAL PROJECTS

CON-IMALS (OR CONNECT ANIMALS)

You will use your Photoshop knowledge to merge some animals.

Getting Started
- Use 2 web images (it's OK if it's copyrighted) and DRAG AND DROP into Photoshop.
- One animal will be the head, other is base (or body)

Requirements:
- 3 final merged images (which equals 6 animals found on Google, etc.)
- Use proper blending, tools, and technique.

Example:

Zac DeLane

You will be evaluated on:
- Use of proper tools
- Blending technique

- Proper color merging
- Following the requirements and directions.

VIDEO GAME COVER

You will mimic a video game cover you find on the web as best as you can!

Getting Started:
- 27.4 cm x 18.2 cm.
- 300dpi, since this is meant for print

Requirements:
- Mimic a cover found on the web, same colors/layout
- Original cover design, featuring you or other reference
- Similar logo/typeface
- Copyright free images, or teacher approved copyright images.
- System Branding and ESRB Rating on the cover

Turning in:
- Generate a Letter canvas, place the original and new on the same canvas
- Turn in the final image of the letter canvas, and the .psd file of the original artwork.

Example:

Vinyl Cover

You will design a cover that would be displayed as a cover for a record.

Getting Started:
- 4.75 inches by 4.75 inches
- 300dpi (since this is print artwork)

Requirements:
- Copyright images of a band you're creating a cover for.
- Creative design, using color and design principles
- Color
- Front and Back, back having song titles by the band
- Use the fest file type for printing.

Turning In
- Create a Letter Size canvas, and place both front and back covers on the one letter sheet.
- Export as the best file type for print.
- Send both .psd files, and the image of the Letter canvas.

Example:

References and Resources

REFERENCES

KEYBOARD SHORTCUTS

Result	Windows	macOS
Free Transform	Control + T	Command + T
Decrease Brush Size	[	[
Increase Brush Size	]	]
Decrease Brush Hardness	{	{
Increase Brush Hardness	}	}
Default Foreground/Background colors	D	D
Switch Foreground/Background colors	X	X
New layer via copy	Control + J	Command + J
New layer via cut	Shift + Control + J	Shift + Command + J
Add to a selection	Any selection tool + Shift-drag	Any selection tool + Shift-drag

Delete brush or swatch	Alt-click brush or swatch	Option-click brush or swatch
Toggle auto-select with move tool	Control-click	Command-click
Cancel any modal dialog window (including the Start Workspace)	Escape	Escape
Select the first edit field of the tool bar	Enter	Return
Navigate between fields	Tab	Tab
Navigate between fields in opposite direction	Tab + Shift	Tab + Shift
Change Cancel to Reset	Alt	Option

Invoke the search experience

Result	Windows	macOS
Search across Photoshop UI, Help & Learn content, and Adobe Stock assets. For more information, see Photoshop search.	Control + F	Command + F

Use function keys

Note:

For macOS, press and hold the Fn key along with the function key (F1-F12) to override default macOS functions such as screen brightness, volume, etc. For more information on the behaviour of function keys on your Mac, refer to these Apple documentations:

macOS Sierra: Use keyboard function keys

Change the behavior of function keys on your Mac

Result	Windows	macOS
Start Help	F1	Help key
Undo/Redo		F1
Cut	F2	F2
Copy	F3	F3
Paste	F4	F4
Show/Hide Brush panel	F5	F5
Show/Hide Color panel	F6	F6
Show/Hide Layers panel	F7	F7
Show/Hide Info panel	F8	F8
Show/Hide Actions panel	F9	Option + F9
Revert	F12	F12
Fill	Shift + F5	Shift + F5
Feather Selection	Shift + F6	Shift + F6
Inverse Selection	Shift + F7	Shift + F7

Select tools

Holding down a key temporarily activates a tool. Letting go of the key returns to the previous tool.

Note: In rows with multiple tools, repeatedly press the same shortcut to toggle through the group.

Result	Windows	macOS
Cycle through tools with the same shortcut key	Shift-press shortcut key (if Use Shift Key for Tool Switch preference is selected)	Shift-press shortcut key (if Use Shift Key for Tool Switch preference is selected)
Cycle through hidden tools	Alt-click + tool (except Add Anchor Point, Delete Anchor Point, and Convert Point tools)	Option-click + tool (except Add Anchor Point, Delete Anchor Point, and Convert Point tools)
Move tool	V	V
Rectangular Marquee tool[†] Elliptical Marquee tool	M	M
Lasso tool Polygonal Lasso tool Magnetic Lasso tool	L	L
Magic Wand tool	W	W

Quick Selection tool		
Crop tool Slice tool	C	C
Eyedropper tool[†] Color Sampler tool Ruler tool Note tool	I	I
Spot Healing Brush tool Healing Brush tool Patch tool Red Eye tool	J	J
Brush tool Pencil tool Color Replacement tool Mixer Brush tool	B	B
Clone Stamp tool Pattern Stamp tool	S	S
History Brush tool Art History Brush tool	Y	Y
Eraser tool[†] Background Eraser tool Magic Eraser tool	E	E

Gradient tool Paint Bucket tool	G	G
Dodge tool Burn tool Sponge tool	O	O
Pen tool Freeform Pen tool	P	P
Horizontal Type tool Vertical Type tool Horizontal Type mask tool Vertical Type mask tool	T	T
Path Selection tool Direct Selection tool	A	A
Rectangle tool Rounded Rectangle tool Ellipse tool Polygon tool Line tool Custom Shape tool	U	U
Hand tool[†]	H	H
Rotate View tool	R	R

Zoom tool[†]	Z	Z
Default Foreground/Background colors	D	D
Switch Foreground/Background colors	X	X
Toggle Standard/Quick Mask modes	Q	Q
Content-Aware Move tool	J	J
Perspective Crop tool	C	C
Artboard tool	V	V
Rotate View tool	R	R
Toggle Preserve Transparency	/ (forward slash)	/ (forward slash)
Decrease Brush Hardness	{	{
Increase Brush Hardness	}	}
Previous Brush	,	,
Next Brush	.	.

First Brush	<	<
Last Brush	>	>
†Use same shortcut key for Liquify		

View images

This partial list provides shortcuts that don't appear in menu commands or tool tips.

Result	Windows	macOS
Cycle through open documents	Control + Tab	Control + Tab
Switch to previous document	Shift + Control + Tab	Shift + Command + ` (grave accent)
Close a file in Photoshop and open Bridge	Shift-Control-W	Shift-Command-W
Toggle between Standard mode and Quick Mask mode	Q	Q
Toggle (forward) between Standard screen mode, Full screen mode with menu bar, and Full screen mode	F	F
Toggle (backward) between Standard	Shift + F	Shift + F

screen mode, Full screen mode with menu bar, and Full screen mode		
Toggle (forward) canvas color	Spacebar + F (or right-click canvas background and select color)	Spacebar + F (or Control-click canvas background and select color)
Toggle (backward) canvas color	Spacebar + Shift + F	Spacebar + Shift + F
Fit image in window	Double-click Hand tool	Double-click Hand tool
Magnify 100%	Double-click Zoom tool or Ctrl + 1	Double-click Zoom tool or Command + 1
Switch to Hand tool (when not in text-edit mode)	Spacebar	Spacebar
Simultaneously pan multiple documents with Hand tool	Shift-drag	Shift-drag
Switch to Zoom In tool	Control + spacebar	Command + spacebar
Switch to Zoom Out tool	Alt + spacebar	Option + spacebar

Move Zoom marquee while dragging with the Zoom tool	Spacebar-drag	Spacebar-drag
Apply zoom percentage, and keep zoom percentage box active	Shift + Enter in Navigator panel zoom percentage box	Shift + Return in Navigator panel zoom percentage box
Zoom in on specified area of an image	Control-drag over preview in Navigator panel	Command-drag over preview in Navigator panel
Temporarily zoom into an image	Hold down H and then click in the image and hold down the mouse button	Hold down H and then click in the image and hold down the mouse button
Scroll image with Hand tool	Spacebar-drag, or drag view area box in Navigator panel	Spacebar-drag, or drag view area box in Navigator panel
Scroll up or down 1 screen	Page Up or Page Down[†]	Page Up or Page Down[†]
Scroll up or down 10 units	Shift + Page Up or Page Down[†]	Shift + Page Up or Page Down[†]
Move view to upper-left corner or lower-right corner	Home or End	Home or End

Toggle layer mask on/off as rubylith (layer mask must be selected)	\ (backslash)	\ (backslash)
†Hold down Ctrl (Windows) or Command (macOS) to scroll left (Page Up) or right (Page Down)		

Use Puppet Warp

This partial list provides shortcuts that don't appear in menu commands or tool tips.

Result	Windows	macOS
Cancel completely	Esc	Esc
Undo last pin adjustment	Ctrl + Z	Command + Z
Select all pins	Ctrl + A	Command + A
Deselect all pins	Ctrl + D	Command + D
Select multiple pins	Shift-click	Shift-click
Move multiple selected pins	Shift-drag	Shift-drag
Temporarily hide pins	H	H

Use Refine Edge

Result	Windows	macOS
Open the Refine Edge dialog box	Control + Alt + R	Command + Option + R

Cycle (forward) through preview modes	F	F
Cycle (backward) through preview modes	Shift + F	Shift + F
Toggle between original image and selection preview	X	X
Toggle between original selection and refined version	P	P
Toggle radius preview on and off	J	J
Toggle between Refine Radius and Erase Refinements tools	Shift + E	Shift + E

Use the Filter Gallery

Result	Windows	macOS
Apply a new filter on top of selected	Alt-click a filter	Option-click a filter
Reapply last-used filter	Control + Alt + F	Control + Command + F
Open/close all disclosure triangles	Alt-click a disclosure triangle	Option-click a disclosure triangle
Change Cancel button to Default	Control	Command

Change Cancel button to Reset	Alt	Option
Undo/Redo	Control + Z	Command + Z
Step forward	Control + Shift + Z	Command + Shift + Z
Step backward	Control + Alt + Z	Command + Option + Z

Use the Liquify filter

Result	Windows	macOS
Forward Warp tool	W	W
Reconstruct tool	R	R
Twirl Clockwise tool	C	C
Pucker tool	S	S
Bloat tool	B	B
Push Left tool	O	O
Mirror tool	M	M
Turbulence tool	T	T
Freeze Mask tool	F	F

Thaw Mask tool	D	D
Reverse direction for Bloat, Pucker, Push Left, and Mirror tools	Alt + tool	Option + tool
Continually sample the distortion	Alt-drag in preview with Reconstruct tool, Displace, Amplitwist, or Affine mode selected	Option-drag in preview with Reconstruct tool, Displace, Amplitwist, or Affine mode selected
Decrease/increase brush size by 2, or density, pressure, rate, or turbulent jitter by 1	Down Arrow/Up Arrow in Brush Size, Density, Pressure, Rate, or Turbulent Jitter text box[†]	Down Arrow/Up Arrow in Brush Size, Density, Pressure, Rate, or Turbulent Jitter text box[†]
Decrease/increase brush size by 2, or density, pressure, rate, or turbulent jitter by 1	Left Arrow/Right Arrow with Brush Size, Density, Pressure, Rate, or Turbulent Jitter slider showing[†]	Left Arrow/Right Arrow with Brush Size, Density, Pressure, Rate, or Turbulent Jitter slider showing[†]
Cycle through controls on right from top	Tab	Tab
Cycle through controls on right from bottom	Shift + Tab	Shift + Tab

Change Cancel to Reset	Alt	Option
†Hold down Shift to decrease/increase by 10		

Use Vanishing Point

Result	Windows	macOS
Zoom 2x (temporary)	X	X
Zoom in	Control + + (plus)	Command + + (plus)
Zoom out	Control + - (hyphen)	Command + - (hyphen)
Fit in view	Control + 0 (zero), Double-click Hand tool	Command + 0 (zero), Double-click Hand tool
Zoom to center at 100%	Double-click Zoom tool	Double-click Zoom tool
Increase brush size (Brush, Stamp tools)	]	]
Decrease brush size (Brush, Stamp tools)	[	[
Increase brush hardness (Brush, Stamp tools)	Shift +]	Shift +]

Decrease brush hardness (Brush, Stamp tools)	Shift + [	Shift + [
Undo last action	Control + Z	Command + Z
Redo last action	Control + Shift + Z	Command + Shift + Z
Deselect all	Control + D	Command + D
Hide selection and planes	Control + H	Command + H
Move selection 1 pixel	Arrow keys	Arrow keys
Move selection 10 pixels	Shift + arrow keys	Shift + arrow keys
Copy	Control + C	Command + C
Paste	Control + V	Command + V
Repeat last duplicate and move	Control + Shift + T	Command + Shift + T
Create a floating selection from the current selection	Control + Alt + T	
Fill a selection with image under the pointer	Control-drag	Command-drag

Create a duplicate of the selection as a floating selection	Control + Alt-drag	Command + Option-drag
Constrain selection to a 15° rotation	Alt + Shift to rotate	Option + Shift to rotate
Select a plane under another selected plane	Control-click the plane	Command-click the plane
Create 90 degree plane off parent plane	Control-drag	Command-drag
Delete last node while creating plane	Backspace	Delete
Make a full canvas plane, square to the camera	Double-click the Create Plane tool	Double-click the Create Plane tool

Use the Camera Raw dialog box

Note:

Holding down a key temporarily activates a tool. Letting go of the key returns to the previous tool.

Result	Windows	macOS
Zoom tool	Z	Z
Hand tool	H	H
White Balance tool	I	I

Color Sampler tool	S	S
Crop tool	C	C
Straighten tool	A	A
Spot Removal tool	B	B
Red Eye Removal tool	E	E
Basic panel	Ctrl + Alt + 1	Command + Option + 1
Tone Curve panel	Ctrl + Alt + 2	Command + Option + 2
Detail panel	Ctrl + Alt + 3	Command + Option + 3
HSL/Grayscale panel	Ctrl + Alt + 4	Command + Option + 4
Split Toning panel	Ctrl + Alt + 5	Command + Option + 5
Lens Corrections panel	Ctrl + Alt + 6	Command + Option + 6
Camera Calibration panel	Ctrl + Alt + 7	Command + Option + 7
Presets panel	Ctrl + Alt + 9	Command + Option + 9 (macOS Universal Access zoom shortcut must

		be disabled in System Preferences)
Open Snapshots panel	Ctrl + Alt + 9	Command + Option + 9
Parametric Curve Targeted Adjustment tool	Ctrl + Alt + Shift + T	Command + Option + Shift + T
Hue Targeted Adjustment tool	Ctrl + Alt + Shift + H	Command + Option + Shift + H
Saturation Targeted Adjustment tool	Ctrl + Alt + Shift + S	Command + Option + Shift + S
Luminance Targeted Adjustment tool	Ctrl + Alt + Shift + L	Command + Option + Shift + L
Grayscale Mix Targeted Adjustment tool	Ctrl + Alt + Shift + G	Command + Option + Shift + G
Last-used Targeted Adjustment tool	T	T
Adjustment Brush tool	K	K
Graduated Filter tool	G	G
Increase/decrease brush size	] / [	] / [

Increase/decrease brush feather	Shift +] / Shift + [	Shift +] / Shift + [
Increase/decrease Adjustment Brush tool flow in increments of 10	= (equal sign) / - (hyphen)	= (equal sign) / - (hyphen)
Temporarily switch from Add to Erase mode for theAdjustment Brush tool, or from Erase to Add mode	Alt	Option
Increase/decrease temporary Adjustment Brush tool size	Alt +] / Alt + [	Option +] / Option + [
Increase/decrease temporary Adjustment Brush tool feather	Alt + Shift +] / Alt + Shift + [	Option + Shift +] / Option + Shift + [
Increase/decrease temporary Adjustment Brush tool flow in increments of 10	Alt + = (equal sign) / Alt + - (hyphen)	Option = (equal sign) / Option + - (hyphen)
Switch to New mode from Add or Erase mode of theAdjustment Brush tool or the Graduated Filter	N	N
Toggle Auto Mask for Adjustment Brush tool	M	M

Toggle Show Mask for Adjustment Brush tool	Y	Y
Toggle pins for Adjustment Brush tool	V	V
Toggle overlay for Graduated Filter, Spot Removal tool, or Red Eye Removal tool.	V	V
Rotate image left	L or Ctrl +]	L or Command +]
Rotate image right	R or Ctrl + [	R or Command + [
Zoom in	Ctrl + + (plus)	Command + + (plus)
Zoom out	Ctrl + - (hyphen)	Command + - (hyphen)
Temporarily switch to Zoom In tool (Doesn't work when Straighten tool is selected. If Crop tool is active, temporarily switches to Straighten tool.)	Ctrl	Command
Temporarily switch to Zoom Out tool and change the Open Image button to Open	Alt	Option

Copy and the Cancel button to Reset.		
Toggle preview	P	P
Full screen mode	F	F
Temporarily activate the White Balance tool and change the Open Image button to Open Object. (Does not work if Crop tool is active)	Shift	Shift
Select multiple points in Curves panel	Click the first point; Shift-click additional points	Click the first point; Shift-click additional points
Add point to curve in Curves panel	Control-click in preview	Command-click in preview
Move selected point in Curves panel (1 unit)	Arrow keys	Arrow keys
Move selected point in Curves panel (10 units)	Shift-arrow	Shift-arrow
Open selected images in Camera Raw dialog box from Bridge	Ctrl + R	Command + R

Open selected images from Bridge bypassing Camera Raw dialog box	Shift + double-click image	Shift + double-click image
Display highlights that will be clipped in Preview	Alt-drag Exposure, Recovery, or Black sliders	Option-drag Exposure, Recovery, or Black sliders
Highlight clipping warning	O	O
Shadows clipping warning	U	U
(Filmstrip mode) Add 1 - 5 star rating	Ctrl +1 - 5	Command + 1 - 5
(Filmstrip mode) Increase/decrease rating	Ctrl +. (period) / Ctrl+, (comma)	Command + . (period) / Command+, (comma)
(Filmstrip mode) Add red label	Ctrl + 6	Command + 6
(Filmstrip mode) Add yellow label	Ctrl + 7	Command + 7
(Filmstrip mode) Add green label	Ctrl + 8	Command + 8

(Filmstrip mode) Add blue label	Ctrl + 9	Command + 9
(Filmstrip mode) Add purple label	Ctrl + Shift + 0	Command + Shift + 0
Camera Raw preferences	Ctrl + K	Command + K
Deletes Adobe Camera Raw preferences	Ctrl + Alt (on open)	Option + Shift (on open)

Use the Black-and-White dialog box

Result	Windows	macOS
Open the Black-and-White dialog box	Shift + Control + Alt + B	Shift + Command + Option+ B
Increase/decrease selected value by 1%	Up Arrow/Down Arrow	Up Arrow/Down Arrow
Increase/decrease selected value by 10%	Shift + Up Arrow/Down Arrow	Shift + Up Arrow/Down Arrow
Change the values of the closest color slider	Click-drag on the image	Click-drag on the image

Use Curves

Result	Windows	macOS

Open the Curves dialog box	Control + M	Command + M
Select next point on the curve	+ (plus)	+ (plus)
Select the previous point on the curve	– (minus)	– (minus)
Select multiple points on the curve	Shift-click the points	Shift-click the points
Deselect a point	Control + D	Command + D
To delete a point on the curve	Select a point and press Delete	Select a point and press Delete
Move the selected point 1 unit	Arrow keys	Arrow keys
Move the selected point 10 units	Shift + Arrow keys	Shift + Arrow keys
Display highlights and shadows that will be clipped	Alt-drag black/white point sliders	Option-drag black/white point sliders
Set a point to the composite curve	Control-click the image	Command-click the image
Set a point to the channel curves	Shift + Control-click the image	Shift + Command-click the image

Toggle grid size	Alt-click the field	Option-click the field

Select and move objects

This partial list provides shortcuts that don't appear in menu commands or tool tips.

Result	Windows	macOS
Reposition marquee while selecting‡	Any marquee tool (except single column and single row) + spacebar-drag	Any marquee tool (except single column and single row) + spacebar-drag
Add to a selection	Any selection tool + Shift-drag	Any selection tool + Shift-drag
Subtract from a selection	Any selection tool + Alt-drag	Any selection tool + Option-drag
Intersect a selection	Any selection tool (except Quick Selection tool) + Shift-Alt-drag	Any selection tool (except Quick Selection tool) + Shift-Option-drag
Constrain marquee to square or circle (if no other selections are active)‡	Shift-drag	Shift-drag
Draw marquee from center (if no other selections are active)‡	Alt-drag	Option-drag

Constrain shape and draw marquee from center[‡]	Shift + Alt-drag	Shift + Option-drag
Switch to Move tool	Control (except when Hand, Slice, Path, Shape, or any Pen tool is selected)	Command (except when Hand, Slice, Path, Shape, or any Pen tool is selected)
Switch from Magnetic Lasso tool to Lasso tool	Alt-drag	Option-drag
Switch from Magnetic Lasso tool to polygonal Lasso tool	Alt-click	Option-click
Apply/cancel an operation of the Magnetic Lasso	Enter/Esc or Control + . (period)	Return/Esc or Command + . (period)
Move copy of selection	Move tool + Alt-drag selection[‡]	Move tool + Option-drag selection[‡]
Move selection area 1 pixel	Any selection + Right Arrow, Left Arrow, Up Arrow, or Down Arrow[†]	Any selection + Right Arrow, Left Arrow, Up Arrow, or Down Arrow[†]
Move selection 1 pixel	Move tool + Right Arrow, Left Arrow, Up Arrow, or Down Arrow[†‡]	Move tool + Right Arrow, Left Arrow, Up Arrow, or Down Arrow[†‡]

Move layer 1 pixel when nothing selected on layer	Control + Right Arrow, Left Arrow, Up Arrow, or Down Arrow[†]	Command + Right Arrow, Left Arrow, Up Arrow, or Down Arrow[†]
Increase/decrease detection width	Magnetic Lasso tool + [or]	Magnetic Lasso tool + [or]
Accept cropping or exit cropping	Crop tool + Enter or Esc	Crop tool + Return or Esc
Toggle crop shield off and on	/ (forward slash)	/ (forward slash)
Make protractor	Ruler tool + Alt-drag end point	Ruler tool + Option-drag end point
Snap guide to ruler ticks (except when View > Snap is unchecked)	Shift-drag guide	Shift-drag guide
Convert between horizontal and vertical guide	Alt-drag guide	Option-drag guide

[†]Hold down Shift to move 10 pixels

[‡]Applies to shape tools

Transform selections, selection borders, and paths

This partial list provides shortcuts that don't appear in menu commands or tool tips.

Result	Windows	macOS

Transform from center or reflect	Alt	Option
Constrain	Shift	Shift
Distort	Control	Command
Apply	Enter	Return
Cancel	Control + . (period) or Esc	Command + . (period) or Esc
Free transform with duplicate data	Control + Alt + T	Command + Option + T
Transform again with duplicate data	Control + Shift + Alt + T	Command + Shift + Option + T

Edit paths

This partial list provides shortcuts that don't appear in menu commands or tool tips.

Result	Windows	macOS
Select multiple anchor points	Direct selection tool + Shift-click	Direct selection tool + Shift-click
Select entire path	Direct selection tool + Alt-click	Direct selection tool + Option-click
Duplicate a path	Pen (any Pen tool), Path Selection or Direct Selection	Pen (any Pen tool), Path Selection or Direct Selection

	tool + Control + Alt-drag	tool + Command + Option-drag
Switch from Path Selection, Pen, Add Anchor Point, Delete Anchor Point, or Convert Point tools to Direct Selection tool	Control	Command
Switch from Pen tool or Freeform Pen tool to Convert Point tool when pointer is over anchor or direction point	Alt	Option
Close path	Magnetic Pen tool-double-click	Magnetic Pen tool-double-click
Close path with straight-line segment	Magnetic Pen tool + Alt-double-click	Magnetic Pen tool + Option-double-click

Use for painting

This partial list provides shortcuts that don't appear in menu commands or tool tips.

Result	Windows	macOS
Select foreground color from color picker	Any painting tool + Shift + Alt + right-click and drag	Any painting tool + Control + Option + Command and drag

Select foreground color from image with Eyedropper tool	Any painting tool + Alt or any shape tool + Alt (except when Paths option is selected)	Any painting tool + Option or any shape tool + Option (except when Paths option is selected)
Select background color	Eyedropper tool + Alt-click	Eyedropper tool + Option-click
Color sampler tool	Eyedropper tool + Shift	Eyedropper tool + Shift
Deletes color sampler	Color sampler tool + Alt-click	Color sampler tool + Option-click
Sets opacity, tolerance, strength, or exposure for painting mode	Any painting or editing tool + number keys (e.g., 0 = 100%, 1 = 10%, 4 then 5 in quick succession = 45%) (when airbrush option is enabled, use Shift + number keys)	Any painting or editing tool + number keys (e.g., 0 = 100%, 1 = 10%, 4 then 5 in quick succession = 45%) (when airbrush option is enabled, use Shift + number keys)
Sets flow for painting mode	Any painting or editing tool + Shift + number keys (e.g., 0 = 100%, 1 = 10%, 4 then 5 in quick succession = 45%) (when airbrush option is enabled, omit Shift)	Any painting or editing tool + Shift + number keys (e.g., 0 = 100%, 1 = 10%, 4 then 5 in quick succession = 45%) (when airbrush option is enabled, omit Shift)

Mixer Brush changes Mix setting	Alt + Shift + number	Option + Shift + number
Mixer Brush changes Wet setting	Number keys	Number keys
Mixer Brush changes Wet and Mix to zero	00	00
Cycle through blending modes	Shift + + (plus) or − (minus)	Shift + + (plus) or − (minus)
Open Fill dialog box on background or standard layer	Backspace or Shift + Backspace	Delete or Shift + Delete
Fill with foreground or background color	Alt + Backspace or Control + Backspace[†]	Option + Delete or Command + Delete[†]
Fill from history	Control + Alt + Backspace[†]	Command + Option + Delete[†]

Displays Fill dialog box	Shift + Backspace	Shift + Delete
Lock transparent pixels on/off	/ (forward slash)	/ (forward slash)
Connects points with a straight line	Any painting tool + Shift-click	Any painting tool + Shift-click
†Hold down Shift to preserve transparency		

Use for blending modes

Result	Windows	macOS
Cycle through blending modes	Shift + + (plus) or − (minus)	Shift + + (plus) or − (minus)
Normal	Shift + Alt + N	Shift + Option + N
Dissolve	Shift + Alt + I	Shift + Option + I
Behind (Brush tool only)	Shift + Alt + Q	Shift + Option + Q

Clear (Brush tool only)	Shift + Alt + R	Shift + Option + R
Darken	Shift + Alt + K	Shift + Option + K
Multiply	Shift + Alt + M	Shift + Option + M
Color Burn	Shift + Alt + B	Shift + Option + B
Linear Burn	Shift + Alt + A	Shift + Option + A
Lighten	Shift + Alt + G	Shift + Option + G
Screen	Shift + Alt + S	Shift + Option + S
Color Dodge	Shift + Alt + D	Shift + Option + D
Linear Dodge	Shift + Alt + W	Shift + Option + W
Overlay	Shift + Alt + O	Shift + Option + O
Soft Light	Shift + Alt + F	Shift + Option + F
Hard Light	Shift + Alt + H	Shift + Option + H

Vivid Light	Shift + Alt + V	Shift + Option + V
Linear Light	Shift + Alt + J	Shift + Option + J
Pin Light	Shift + Alt + Z	Shift + Option + Z
Hard Mix	Shift + Alt + L	Shift + Option + L
Difference	Shift + Alt + E	Shift + Option + E
Exclusion	Shift + Alt + X	Shift + Option + X
Hue	Shift + Alt + U	Shift + Option + U
Saturation	Shift + Alt + T	Shift + Option + T
Color	Shift + Alt + C	Shift + Option + C
Luminosity	Shift + Alt + Y	Shift + Option + Y
Desaturate	Sponge tool + Shift + Alt + D	Sponge tool + Shift + Option + D

Saturate	Sponge tool + Shift + Alt + S	Sponge tool + Shift + Option + S
Dodge/burn shadows	Dodge tool/Burn tool + Shift + Alt + S	Dodge tool/Burn tool + Shift + Option + S
Dodge/burn midtones	Dodge tool/Burn tool + Shift + Alt + M	Dodge tool/Burn tool + Shift + Option + M
Dodge/burn highlights	Dodge tool/Burn tool + Shift + Alt + H	Dodge tool/Burn tool + Shift + Option + H
Set blending mode to Threshold for bitmap images, Normal for all other images	Shift + Alt + N	Shift + Option + N

Select and edit text

This partial list provides shortcuts that don't appear in menu commands or tool tips.

Result	Windows	macOS
Move type in image	Control-drag type when Type layer is selected	Command-drag type when Type layer is selected
Select 1 character left/right or 1 line	Shift + Left Arrow/Right Arrow or Down	Shift + Left Arrow/Right Arrow or Down Arrow/Up

down/up, or 1 word left/right	Arrow/Up Arrow, or Control + Shift + Left Arrow/Right Arrow	Arrow, or Command + Shift + Left Arrow/Right Arrow
Select characters from insertion point to mouse click point	Shift-click	Shift-click
Move 1 character left/right, 1 line down/up, or 1 word left/right	Left Arrow/Right Arrow, Down Arrow/Up Arrow, or Control + Left Arrow/Right Arrow	Left Arrow/Right Arrow, Down Arrow/Up Arrow, or Command + Left Arrow/Right Arrow
Create a new text layer, when a text layer is selected in the Layers panel	Shift-click	Shift-click
Select a word, line, paragraph, or story	Double-click, triple-click, quadruple-click, or quintuple-click	Double-click, triple-click, quadruple-click, or quintuple-click
Show/Hide selection on selected type	Control + H	Command + H
Display the bounding box for transforming text when editing text, or activate Move tool if cursor is inside the bounding box	Control	Command

Scale text within a bounding box when resizing the bounding box	Control-drag a bounding box handle	Command-drag a bounding box handle
Move text box while creating text box	Spacebar-drag	Spacebar-drag

Format type

This partial list provides shortcuts that don't appear in menu commands or tool tips.

Result	Windows	macOS
Align left, center, or right	Horizontal Type tool + Control + Shift + L, C, or R	Horizontal Type tool + Command + Shift + L, C, or R
Align top, center, or bottom	Vertical Type tool + Control + Shift + L, C, or R	Vertical Type tool + Command + Shift + L, C, or R
Choose 100% horizontal scale	Control + Shift + X	Command + Shift + X
Choose 100% vertical scale	Control + Shift + Alt + X	Command + Shift + Option + X
Choose Auto leading	Control + Shift + Alt + A	Command + Shift + Option + A
Choose 0 for tracking	Control + Shift + Q	Command + Control + Shift + Q

Justify paragraph, left aligns last line	Control + Shift + J	Command + Shift + J
Justify paragraph, justifies all	Control + Shift + F	Command + Shift + F
Toggle paragraph hyphenation on/off	Control + Shift + Alt + H	Command + Control + Shift + Option + H
Toggle single/every-line composer on/off	Control + Shift + Alt + T	Command + Shift + Option + T
Decrease or increase type size of selected text 2 points or pixels	Control + Shift + < or >†	Command + Shift + < or >†
Decrease or increase leading 2 points or pixels	Alt + Down Arrow or Up Arrow††	Option + Down Arrow or Up Arrow††
Decrease or increase baseline shift 2 points or pixels	Shift + Alt + Down Arrow or Up Arrow††	Shift + Option + Down Arrow or Up Arrow††
Decrease or increase kerning/tracking 20/1000 ems	Alt + Left Arrow or Right Arrow††	Option + Left Arrow or Right Arrow††
†Hold down Alt (Win) or Option (macOS) to decrease/increase by 10		
††Hold down Ctrl (Windows) or Command (macOS) to decrease/increase by 10		

Slice and optimize

Result	Windows	macOS
Toggle between Slice tool and Slice Selection tool	Control	Command
Draw square slice	Shift-drag	Shift-drag
Draw from center outward	Alt-drag	Option-drag
Draw square slice from center outward	Shift + Alt-drag	Shift + Option-drag
Reposition slice while creating slice	Spacebar-drag	Spacebar-drag
Open context-sensitive menu	Right-click slice	Control-click slice

Use panels

This partial list provides shortcuts that don't appear in menu commands or tool tips.

Result	Windows	macOS
Set options for new items (except for Actions, Animation, Styles, Brushes, Tool Presets, and Layer Comps panels)	Alt-click New button	Option-click New button
Delete without confirmation (except for the Brush panel)	Alt-click Delete button	Option-click Delete button
Apply value and keep text box active	Shift + Enter	Shift + Return

Show/Hide all panels	Tab	Tab
Show/Hide all panels except the toolbox and options bar	Shift + Tab	Shift + Tab
Highlight options bar	Select tool and press Enter	Select tool and press Return
Increase/decrease selected values by 10	Shift + Up Arrow/Down Arrow	Shift + Up Arrow/Down Arrow

Use the Actions panel

Result	Windows	macOS
Turn command on and all others off, or turn all commands on	Alt-click the check mark next to a command	Option-click the check mark next to a command
Turn current modal control on and toggle all other modal controls	Alt-click	Option-click
Change action or action set options	Alt + double-click action or action set	Option + double-click action or action set
Display Options dialog box for recorded command	Double-click recorded command	Double-click recorded command

Play entire action	Control + double-click an action	Command + double-click an action
Collapse/expand all components of an action	Alt-click the triangle	Option-click the triangle
Play a command	Control-click the Play button	Command-click the Play button
Create new action and begin recording without confirmation	Alt-click the New Action button	Option-click the New Action button
Select contiguous items of the same kind	Shift-click the action/command	Shift-click the action/command
Select discontiguous items of the same kind	Control-click the action/command	Command-click the action/command

Use adjustment layers

Note:

If you prefer channel shortcuts starting with Alt/Option + 1 for red, choose Edit > Keyboard Shortcuts, and select Use Legacy Channel Shortcuts. Then restart Photoshop.

Result	Windows	macOS
Choose specific channel for adjustment	Alt + 3 (red), 4 (green), 5 (blue)	Option + 3 (red), 4 (green), 5 (blue)

Choose composite channel for adjustment	Alt + 2	Option + 2
Delete adjustment layer	Delete or Backspace	Delete
Define Auto options for Levels or Curves	Alt-click Auto button	Option-click Auto button

Use the Animation panel in Frames mode

Result	Windows	macOS
Select/deselect multiple contiguous frames	Shift-click second frame	Shift-click second frame
Select/deselect multiple discontiguous frames	Control-click multiple frames	Command-click multiple frames
Paste using previous settings without displaying the dialog box	Alt + Paste Frames command from the Panel pop-up menu	Option + Paste Frames command from the Panel pop-up menu

Use the Brush panel

Result	Windows	macOS
Delete brush	Alt-click brush	Option-click brush

Rename brush	Double-click brush	Double-click brush
Change brush size	Alt + right-click + drag left or right	Ctrl + Option + drag left or right
Decrease/increase brush softness/hardness	Alt + right-click + drag up or down	Ctrl + Option + drag up or down
Select previous/next brush size	, (comma) or . (period)	, (comma) or . (period)
Select first/last brush	Shift + , (comma) or . (period)	Shift + , (comma) or . (period)
Display precise cross hair for brushes	Caps Lock or Shift + Caps Lock	Caps Lock
Toggle airbrush option	Shift + Alt + P	Shift + Option + P

Use the Channels panel

Note:

If you prefer channel shortcuts starting with Ctrl/Command + 1 for red, choose Edit > Keyboard Shortcuts, and select Use Legacy Channel Shortcuts.

Result	**Windows**	**macOS**
Select individual channels	Ctrl + 3 (red), 4 (green), 5 (blue)	Command + 3 (red), 4 (green), 5 (blue)

Select composite channel	Ctrl + 2	Command + 2
Load channel as selection	Control-click channel thumbnail, or Alt + Ctrl + 3 (red), 4 (green), 5 (blue)	Command-click channel thumbnail, or Option + Command + 3 (red), 4 (green), 5 (blue)
Add to current selection	Control + Shift-click channel thumbnail	Command + Shift-click channel thumbnail
Subtract from current selection	Control + Alt-click channel thumbnail	Command + Option-click channel thumbnail
Intersect with current selection	Control + Shift + Alt-click channel thumbnail	Command + Shift + Option-click channel thumbnail
Set options for Save Selection As Channel button	Alt-click Save Selection As Channel button	Option-click Save Selection As Channel button
Create a new spot channel	Control-click Create New Channel button	Command-click Create New Channel button
Select/deselect multiple color-channel selection	Shift-click color channel	Shift-click color channel
Select/deselect alpha channel and	Shift-click alpha channel	Shift-click alpha channel

show/hide as a rubylith overlay		
Display channel options	Double-click alpha or spot channel thumbnail	Double-click alpha or spot channel thumbnail
Toggle composite and grayscale mask in Quick Mask mode	~ (tilde)	~ (tilde)

Use the Clone Source panel

Result	Windows	macOS
Show Clone Source (overlays image)	Alt + Shift	Option + Shift
Nudge Clone Source	Alt + Shift + arrow keys	Option + Shift + arrow keys
Rotate Clone Source	Alt + Shift + < or >	Option + Shift + < or >
Scale (increase or reduce size) Clone Source	Alt + Shift + [or]	Option + Shift + [or]

Use the Color panel

Result	Windows	macOS
Select background color	Alt-click color in color bar	Option-click color in color bar

Display Color Bar menu	Right-click color bar	Control-click color bar
Cycle through color choices	Shift-click color bar	Shift-click color bar

Use the History panel

Result	Windows	macOS
Create a new snapshot	Alt + New Snapshot	Option + New Snapshot
Rename snapshot	Double-click snapshot name	Double-click snapshot name
Step forward through image states	Control + Shift + Z	Command + Shift + Z
Step backward through image states	Control + Alt + Z	Command + Option + Z
Duplicate any image state, except the current state	Alt-click the image state	Option-click the image state
Permanently clear history (no Undo)	Alt + Clear History (in History panel pop-up menu)	Option + Clear History (in History panel pop-up menu)

Use the Info panel

Result	Windows	macOS
Change color readout modes	Click eyedropper icon	Click eyedropper icon
Change measurement units	Click crosshair icon	Click crosshair icon

Use the Layers panel

Result	Windows	macOS
Load layer transparency as a selection	Control-click layer thumbnail	Command-click layer thumbnail
Add to current selection	Control + Shift-click layer thumbnail	Command + Shift-click layer thumbnail
Subtract from current selection	Control + Alt-click layer thumbnail	Command + Option-click layer thumbnail
Intersect with current selection	Control + Shift + Alt-click layer thumbnail	Command + Shift + Option-click layer thumbnail
Load filter mask as a selection	Control-click filter mask thumbnail	Command-click filter mask thumbnail

New layer	Control + Shift+ N	Command + Shift+ N
New layer via copy	Control + J	Command + J
New layer via cut	Shift + Control + J	Shift + Command + J
Group layers	Control + G	Command + G
Ungroup layers	Control + Shift + G	Command + Shift + G
Create/release clipping mask	Control + Alt + G	Command + Option + G
Select all layers	Control + Alt + A	Command + Option + A
Merge visible layers	Control + Shift + E	Command + Shift + E
Create new empty layer with dialog box	Alt-click New Layer button	Option-click New Layer button
Create new layer below target layer	Control-click New Layer button	Command-click New Layer button
Select top layer	Alt + . (period)	Option + . (period)
Select bottom layer	Alt + , (comma)	Option + , (comma)

Add to layer selection in Layers panel	Shift + Alt + [or]	Shift + Option + [or]
Select next layer down/up	Alt + [or]	Option + [or]
Move target layer down/up	Control + [or]	Command + [or]
Merge a copy of all visible layers into target layer	Control + Shift + Alt + E	Command + Shift + Option + E
Merge layers	Highlight layers you want to merge, then Control + E	Highlight the layers you want to merge, then Command + E
Move layer to bottom or top	Control + Shift + [or]	Command + Shift + [or]
Copy current layer to layer below	Alt + Merge Down command from the Panel pop-up menu	Option + Merge Down command from the Panel pop-up menu
Merge all visible layers to a new layer above the currently selected layer	Alt + Merge Visible command from the Panel pop-up menu	Option + Merge Visible command from the Panel pop-up menu
Show/hide this layer/layer group	Right-click the eye icon	Control-click the eye icon

only or all layers/layer groups		
Show/hide all other currently visible layers	Alt-click the eye icon	Option-click the eye icon
Toggle lock transparency for target layer, or last applied lock	/ (forward slash)	/ (forward slash)
Edit layer effect/style, options	Double-click layer effect/style	Double-click layer effect/style
Hide layer effect/style	Alt-double-click layer effect/style	Option-double-click layer effect/style
Edit layer style	Double-click layer	Double-click layer
Disable/enable vector mask	Shift-click vector mask thumbnail	Shift-click vector mask thumbnail
Open Layer Mask Display Options dialog box	Double-click layer mask thumbnail	Double-click layer mask thumbnail
Toggle layer mask on/off	Shift-click layer mask thumbnail	Shift-click layer mask thumbnail
Toggle filter mask on/off	Shift-click filter mask thumbnail	Shift-click filter mask thumbnail

Toggle between layer mask/composite image	Alt-click layer mask thumbnail	Option-click layer mask thumbnail
Toggle between filter mask/composite image	Alt-click filter mask thumbnail	Option-click filter mask thumbnail
Toggle rubylith mode for layer mask on/off	\ (backslash), or Shift + Alt-click	\ (backslash), or Shift + Option-click
Select all type; temporarily select Type tool	Double-click type layer thumbnail	Double-click type layer thumbnail
Create a clipping mask	Alt-click the line dividing two layers	Option-click the line dividing two layers
Rename layer	Double-click the layer name	Double-click the layer name
Edit filter settings	Double-click the filter effect	Double-click the filter effect
Edit the Filter Blending options	Double-click the Filter Blending icon	Double-click the Filter Blending icon
Create new layer group below current layer/layer set	Control-click New Group button	Command-click New Group button

Create new layer group with dialog box	Alt-click New Group button	Option-click New Group button
Create layer mask that hides all/selection	Alt-click Add Layer Mask button	Option-click Add Layer Mask button
Create vector mask that reveals all/path area	Control-click Add Layer Mask button	Command-click Add Layer Mask button
Create vector mask that hides all or displays path area	Control + Alt-click Add Layer Mask button	Command + Option-click Add Layer Mask button
Display layer group properties	Right-click layer group and choose Group Properties, or double-click group	Control-click the layer group and choose Group Properties, or double-click group
Select/deselect multiple contiguous layers	Shift-click	Shift-click
Select/deselect multiple discontiguous layers	Control-click	Command-click

Note:

If Kotoeri is your Japanese language input method, the "Toggle rubylith mode for layer mask on/off" shortcut starts an action in Kotoeri. Please switch to another mode (for example, "U.S.") to enable this shortcut.

Use the Layer Comps panel

Result	Windows	macOS
Create new layer comp without the New Layer Comp box	Alt-click Create New Layer Comp button	Option-click Create New Layer Comp button
Open Layer Comp Options dialog box	Double-click layer comp	Double-click layer comp
Rename in-line	Double-click layer comp name	Double-click layer comp name
Select/deselect multiple contiguous layer comps	Shift-click	Shift-click
Select/deselect multiple discontiguous layer comps	Control-click	Command-click

Use the Paths panel

Result	Windows	macOS
Load path as selection	Control-click pathname	Command-click pathname
Add path to selection	Control + Shift-click pathname	Command + Shift-click pathname

Subtract path from selection	Control + Alt-click pathname	Command + Option-click pathname
Retain intersection of path as selection	Control + Shift + Alt-click pathname	Command + Shift + Option-click pathname
Hide path	Control + Shift + H	Command + Shift + H
Set options for Fill Path with **Foreground Color** button, Stroke Path with Brush button, Load Path as a Selection button, Make Work Path from Selection button and Create New Path button	Alt-click button	Option-click button

Use the Swatches panel

Result	Windows	macOS
Create new swatch from foreground color	Click in empty area of panel	Click in empty area of panel
Set swatch color as background color	Control-click swatch	Command-click swatch
Delete swatch	Alt-click swatch	Option-click swatch

Use Extract and Pattern Maker (optional plug-ins)

Result (Extract and Pattern Maker)	Windows	macOS
Fit in window	Control + 0	Command + 0
Zoom in	Control + + (plus)	Command + + (plus)
Zoom out	Control + - (hyphen)	Command + - (hyphen)
Cycle through controls on right from top	Tab	Tab
Cycle through controls on right from bottom	Shift + Tab	Shift + Tab
Temporarily activate Hand tool	Spacebar	Spacebar
Change Cancel to Reset	Alt	Option
Result (Extract only)	Windows	macOS
Edge Highlighter tool	B	B
Fill tool	G	G
Eyedropper tool	I	I

Result (Extract and Pattern Maker)	Windows	macOS
Cleanup tool	C	C
Edge Touchup tool	T	T
Toggle between Edge Highlighter tool and Eraser tool	Alt + Edge Highlighter/Eraser tool	Option + Edge Highlighter/Eraser tool
Toggle Smart Highlighting	Control with Edge Highlighter tool selected	Command with Edge Highlighter tool selected
Remove current highlight	Alt + Delete	Option + Delete
Highlight entire image	Control + Delete	Command + Delete
Fill foreground area and preview extraction	Shift-click with Fill tool selected	Shift-click with Fill tool selected
Move mask when Edge Touchup tool is selected	Control-drag	Command-drag
Add opacity when Cleanup tool is selected	Alt-drag	Option-drag
Toggle Show menu options in preview	X	X

Result (Extract and Pattern Maker)	Windows	macOS
between Original and Extracted		
Enable Cleanup and Edge Touchup tools before preview	Shift + X	Shift + X
Cycle through Display menu in preview from top to bottom	F	F
Cycle through Display menu in preview from bottom to top	Shift + F	Shift + F
Decrease/increase brush size by 1	Down Arrow/Up Arrow in Brush Size text box[†]	Down Arrow or Up Arrow in Brush Size text box[†]
Decrease/increase brush size by 1	Left Arrow/Right Arrow with Brush Size Slider showing[†]	Left Arrow/Right Arrow with Brush Size Slider showing[†]
Set strength of Cleanup or Edge Touch-up tool	0–9	0–9
[†]Hold down Shift to decrease/increase by 10		

Result (Extract and Pattern Maker)	Windows	macOS
Result (Pattern Maker only)	Windows	macOS
Delete current selection	Control + D	Command + D
Undo a selection move	Control + Z	Command + Z
Generate or generate again	Control + G	Command + G
Intersect with current selection	Shift + Alt + select	Shift + Option + select
Toggle view: original/generated pattern	X	X
Go to first tile in Tile History	Home	Home
Go to last tile in Tile History	End	End
Go to previous tile in Tile History	Left Arrow, Page Up	Left Arrow, Page Up
Go to next tile in Tile History	Right Arrow, Page Down	Right Arrow, Page Down

Result (Extract and Pattern Maker)	Windows	macOS
Delete current tile from Tile History	Delete	Delete
Nudge selection when viewing the original	Right Arrow, Left Arrow, Up Arrow, or Down Arrow	Right Arrow, Left Arrow, Up Arrow, or Down Arrow
Increase selection nudging when viewing the original	Shift + Right Arrow, Left Arrow, Up Arrow, or Down Arrow	Shift + Right Arrow, Left Arrow, Up Arrow, or Down Arrow

WRITE UP SHEET

Your original Project Title:

What programs did you use?	What filters or tools did you use?
What images did you use? (links)	What other items did you use?

What was your motive behind the project?	Why did you choose the composition of the image?
How did you incorporate the provided requirements into your project?	How did you incorporate the provided images into your project?

Write a 2-3 sentence artist statement, explaining your motives and graphic principles incorporated into your design:

WEBSITES TO HELP YOU PREPARE

GMetrix is a paid service that gives mock Adobe Certified associate exams. It involves simulations that help you prep for the exam, and a lot of questions they ask will be on the exam.

YouTube has A LOT of tutorials, from creating animations, and fun and unique projects. If your confused on a subject, look it up on YouTube, and you're sure to find a tutorial.

https://photoshoptrainingchannel.com/ is another great website to help cover and train in new skills in Photoshop. Some tutorials are paid, but they have a lot of free resources.

TGGEDU GOALS

Students who are taking The Digital Way course have the opportunity to be certified by tggEdu in Adobe Photoshop for Graphic and Photo Manipulation. This exam demonstrates more program based skills and accelerates more skills than the Adobe Certified exam. Below is the tggEdu basic structure of goals review on the exam:

AREA A: Demonstration of Project Management

TGG1.011	Demonstration of basic project requirements, including mock ups, drafting, and basic time management.
TGG1.012	Demonstration of US Copyright law's, fair use, and public domains
TGG1.013	Demonstrate knowledge of the client and employer relationship.

AREA B: Demonstration of Digital Image terminology

TGG2.014	Demonstrate knowledge of digital image terminology, such as a vector or raw image.
TGG2.015	Demonstrate knowledge of the principles of design, such as Harmony and Repetition.
TGG2.016	Demonstrate knowledge of image size and resolution, and know common types of resolutions and print layouts (1920x1080, 8.5inx11in)

AREA C: Demonstration of Photoshop/Lightroom Knowledge

TGG3.017	Demonstrate knowledge of creating or importing a new image.
TGG3.018	Demonstrate knowledge of Photoshop tools, groups and the functions they perform.
TGG3.019	Demonstrate knowledge of the workspace, and the common panels and what functions they perform.
TGG3.020	Demonstrate knowledge of common panels, such as the layers and brushes panel.
TGG3.021	Demonstrate knowledge of using selection tools, and be able to differ between them.
TGG3.022	Demonstrate knowledge of blending, including auto blending and content aware filling.
TGG3.023	Demonstrate knowledge of creating new workspaces, documents, and graphics.
TGG3.024	Demonstrate knowledge in Adobe Lightroom CC

ADOBE GOALS

Domain 1.0 Setting Project Requirements

1.1 Identify the purpose, audience, and audience needs for preparing images.

1.2 Summarize how designers make decisions about the type of content to include in a project,

including considerations such as copyright, project fit, permissions, and licensing.

1.1 Demonstrate knowledge of project management tasks and responsibilities.

1.3 Communicate with others (such as peers and clients) about design plans.

Domain 2.0 Understanding Digital Images

2.1 Understand key terminology related to digital images.

2.2 Demonstrate knowledge of basic design principles and best practices employed in the visual

design industry.

2.3 Demonstrate knowledge of typography and its use in visual design.

2.4 Demonstrate knowledge of color and its use in digital images.

2.5 Demonstrate knowledge of image resolution, image size, and image file format for web, video,

and print.

Domain 3.0 Understanding Adobe Photoshop

3.1 Identify elements of the Photoshop CC user interface and demonstrate knowledge of their functions.

3.2 Identify and define the functions of commonly used Panels, including the Properties, Layers, Brushes, Adjustments, and Type panels.

3.3 Define the functions of commonly used tools, including selection, drawing, painting, type, and vector shape tools.

3.4 Navigate, organize, and customize the workspace.

3.5 Use non-printing design tools in the interface, such as rulers and guides.

3.6 Demonstrate knowledge of layers and masks.

3.7 Manage colors, swatches, and gradients.

3.8 Manage brushes, symbols, graphic styles, and patterns.

Domain 4.0 Creating Digital Images Using Adobe Photoshop

4.1 Create a new project.

4.2 Import assets into a project.

4.3 Make, manage, and manipulate selections.

4.4 Transform images.

4.5 Create and manage layers and masks.

4.6 Use basic retouching techniques — including color correction, blending, cloning, and filters —

to manipulate a digital image.

4.7 Create a vector drawing, such as an icon, button, or layout.

4.8 Add and manipulate type.

4.9 Add filters.

Domain 5.0 Publishing Digital Images Using Adobe Photoshop

5.1 Prepare images for export to web, print, and video.

5.2 Export or save digital images to various file formats.

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