

# How to Shade & Pencil Shading Techniques

By Darlene Nguyen - July 19, 2016

You guys asked for it, so here it is: the most requested tutorial to date: *How to Shade + Shading Techniques!* :) Shading is the process of applying varying levels of darkness to create the illusion of form and depth.

Aside from practicing proper shading and blending techniques, a good understanding of light, planes and contours are crucial for turning a flat line drawing into a realistic portrait that conveys the illusion of form, bringing your drawing to life.

Below is a breakdown of what you can expect to learn from this shading tutorial. I highly suggest you read all the way through!

## Part 1: Understanding Pencil Grades

- Intro to Graphite Pencils
- Shading with One Pencil
- Shading with a Variety of Pencils
- Black and White

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- Cross Hatching
- Circulism

- Contour Shading

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**[You can find all the tools/materials in this tutorial here](#)**

## Specific shading tutorials:

- [How to Shade a Face](#)
- [How to Shade an Eyeball](#)
- ...will add more soon!

# Understanding Pencil Grades

To achieve a realistic drawing that communicates form and depth, your drawing will need to have a wide range of values. Invest in a set of high quality pencils with a range of grades that fit your specific drawing needs.

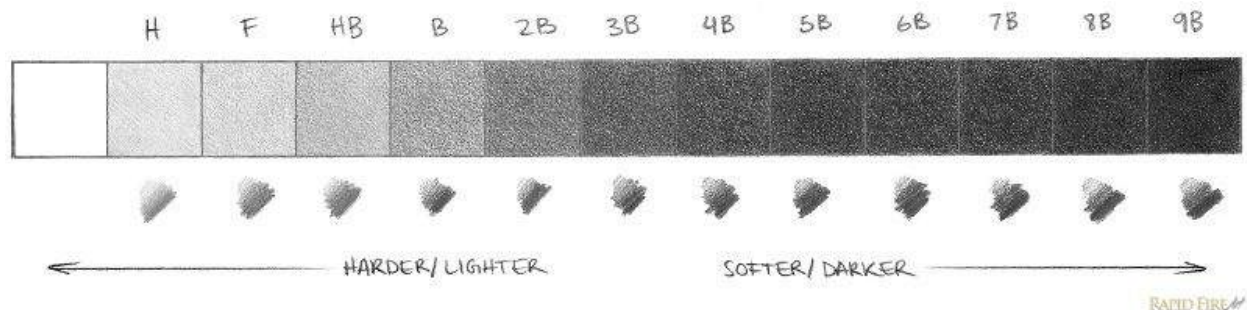
A typical full set of pencils will range from 9H (hardest) to 9B (softest). Having a full set is not necessary for portrait drawing. The range you need depends on the type of drawings you do.

**Hard pencils** produce clean, sharp and light lines which are great for sketching, architectural drawings, product sketches, etc. The harder the pencil, the more difficult it is to blend or smudge.

Be careful when shading with sharp, hard pencils because they can leave deep indents in your paper which are very difficult to cover up.

**Soft pencils** produce dull and dark lines which are easy to blend. Soft pencils deposit more graphite with less effort, making it easy to fill in space, blend, shade and add texture to your drawing. They are great for drawing portraits!

The pencil grades I use the most for portrait drawing are: HB, 4B, 6B and 8B from Derwent.



You can tell how hard or soft a pencil is by looking at the combination of letters and numbers printed on the end of each pencil.

**H** = Hard, **F** = Fine Point, **HB** = Hard Black, **B** = Black

## Black and White

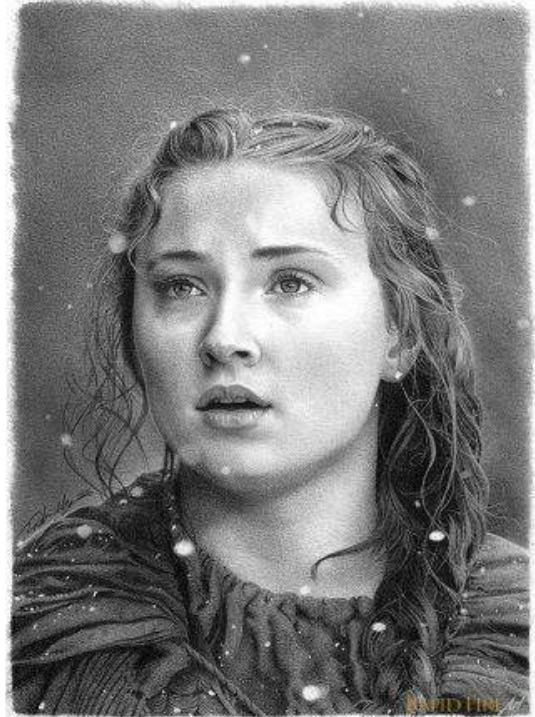
**Black:** With graphite pencils, you won't get a deep black. However, you can achieve it with charcoal. They are actually very commonly used together with amazing results.

**White:** You may have seen artists use correctional fluid (whiteout), paint or white pencil crayon to bring out strong highlights in their drawing. This gives the drawing a very impactful look and can enhance the level realism. Here's an [example](#).

## Shading with One Pencil



VS

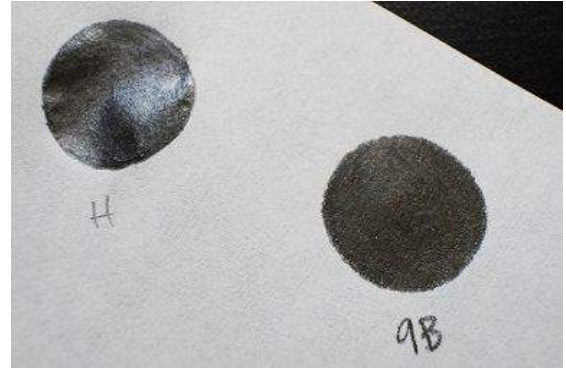


If your tool belt currently consists of a single HB pencil, your portraits are probably lacking depth.

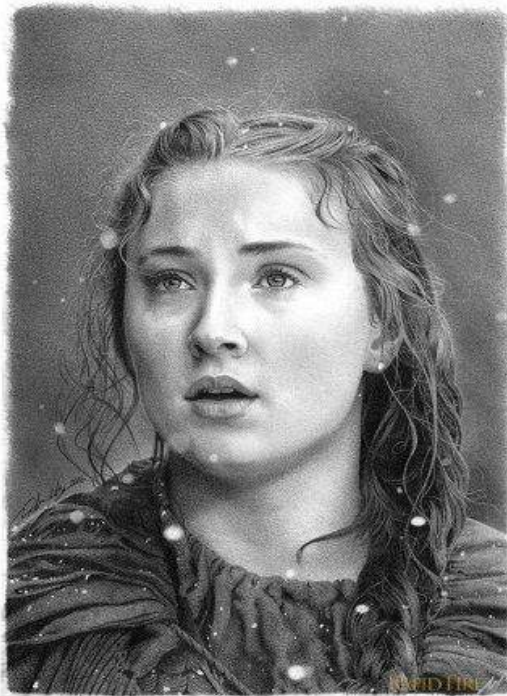
The HB pencil (aka #2 pencil) is absolutely great for drawing preliminary outlines and shading light areas because it doesn't require much effort to produce faint lines. However, you'll need to apply a lot of pressure when it comes to shading dark shadows. All this effort can damage your paper, resulting in a drawing that doesn't translate well from multiple viewing angles. Not to mention, it will be impossible to erase.

Here's an exaggerated example on thin sketch paper.

If you prefer to use only one pencil, I suggest using a 2B, 3B or 4B. They're flexible enough to reach both ends of the value scale without much effort. If your drawings are usually light, go for a 2B. My favorite is 4B.



## Shading with a Variety of Pencils



When shading with a variety of pencil grades, each pencil should only cover a small range of values. For the drawing below, I used HB, 4B and 6B.

**HB:** Preliminary outlines, some highlights, first layer of shading, eye-whites.

**4B:** Mid-tones, light shadows, detailing, hair, first layer of shading for clothes, background.

**6B:** Darkest shadows, hair, clothes, dark areas of background, pupils, inside the mouth and nostrils.

[Click here for a full step by step tutorial on \*\*how to shade a face\*\*](#)

Using multiple pencil grades makes the job easy because there is less effort required to achieve a lighter or darker shade. For example, it would be difficult to shade the background using an HB and even more difficult to shade highlights using a 6B.

If you need help selecting the best pencil grades for a portrait, create a value scale using your own graphite pencils, compare the values to your reference image directly and select the range of pencils that closely match the values you need.

The range of values can vary greatly from one portrait to another due to lighting or skin color. The two pictures below make a great example.



For the face on the left, I would shade with an HB for outlines and eye-whites, a 4B for the rest of the face and maybe a 6B for the pupils.

For the face on the right, I would use an HB for outlines and highlights, 4B for my first layer of shading, 5B for the second layer and light shadows, 6B for darker shadows and eye detailing, and finally a 9B for the darkest shadows.

# Portrait Pencil Shading Techniques

## Hatching



This shading technique consists of a series of lines that go in one general direction. You can increase the value by applying more pressure and or using a softer grade of pencil.

This is my favorite and most used technique, especially for speed drawings! It's a huge time saver. When using this technique, always angle your pencil more towards the paper so your strokes are nice and thick. This allows you to minimize gaps, making it easier to blend.



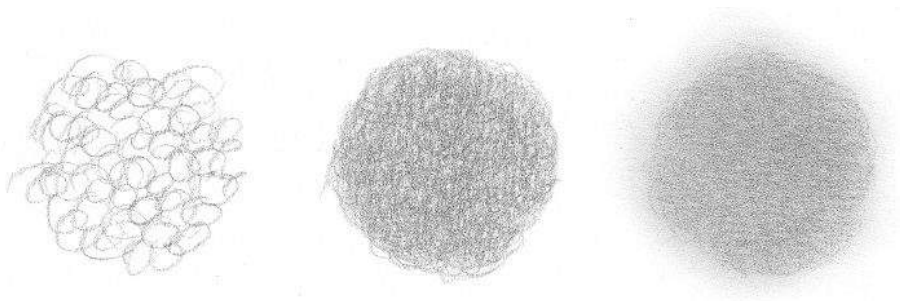
## Cross Hatching



The cross hatching technique consists of overlapping lines coming from multiple directions. I use this technique to convey wrinkled or highly textured skin as well as some types of fabrics.

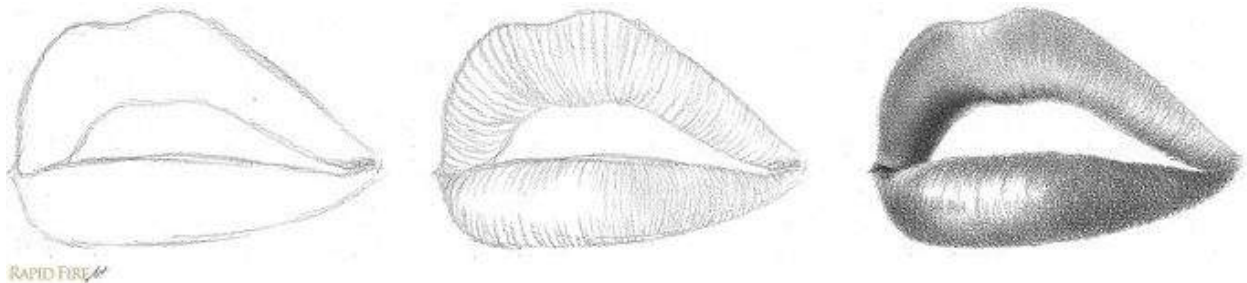
## Circulism

Circulism is my second favorite shading technique. It's great for creating realistic skin textures. The idea is to draw many circles that overlap each other, building tone with each added layer.



This technique requires a lot of patience! When using this technique to draw skin with fine wrinkles, use a sharp tip. For smooth skin, angle your pencil more so you get slightly blunt circles which are much easier to blend, giving the skin a softer appearance.

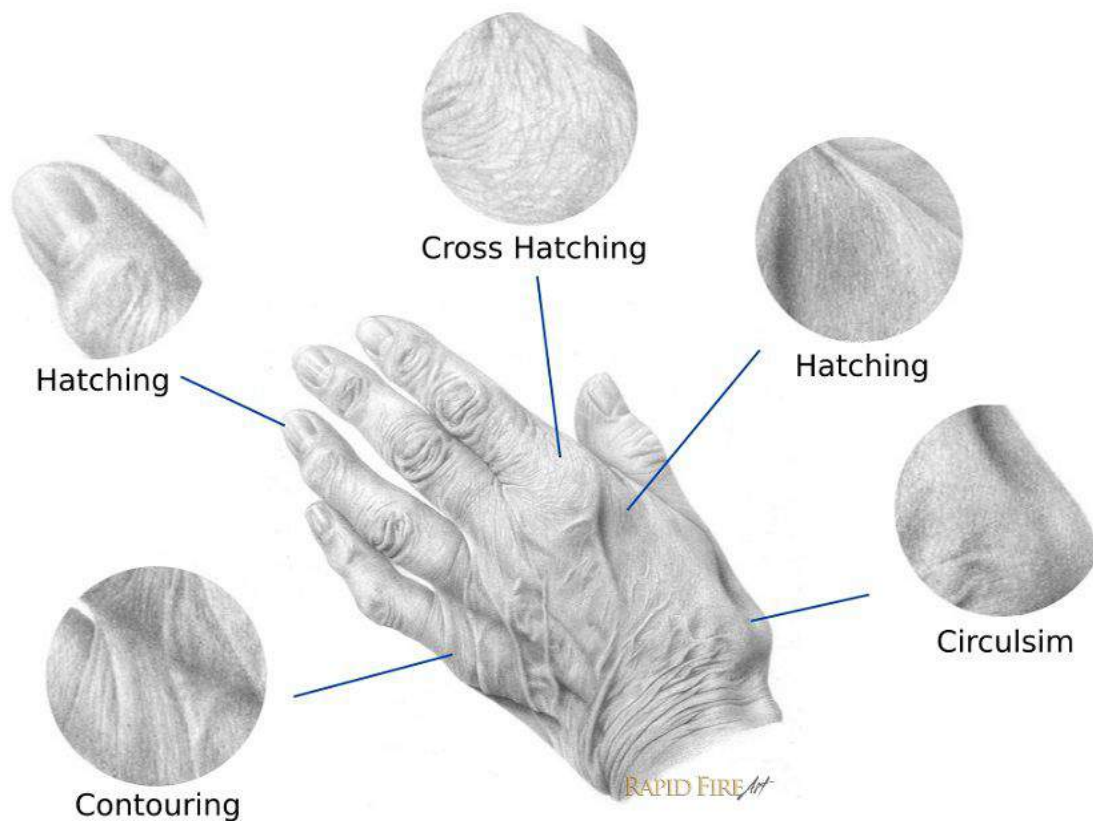
## Contour Shading



This technique is similar to hatching or cross hatching, except you're curving the lines to follow the contour of the form you are shading. Contour lines can be drawn vertically, horizontally and even diagonally. This is a great shading technique to practice giving form to your line drawings. With a sharp pencil tip, it's great for shading fine wrinkles.

## Putting it All Together

In the image below, I used all of the realistic shading techniques above to convey wrinkly skin. For the first few layers, I used circularism, then I used the other three shading techniques to achieve various textures found in wrinkly skin. **Tip:** When drawing wrinkly or rough skin, avoid blending your graphite.



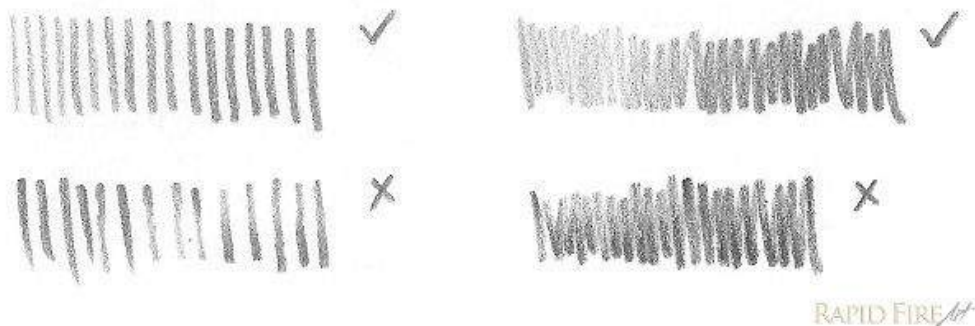
# Pencil Shading Tips and Tricks

## How to Shade Smoothly

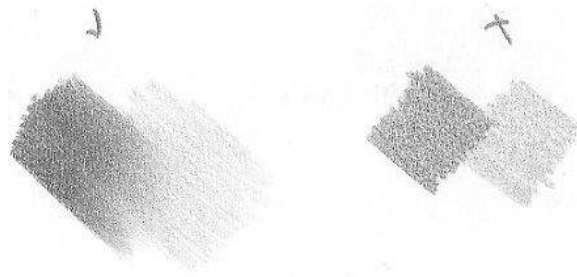
There are a few factors involved in achieving a smooth pencil shade.

### 1.) Good Pressure Control

Maintain consistent pressure for each individual stroke.



If you're shading into a lighter area, though, it helps to reduce the amount of pressure at the end of the stroke so you get a nice gradient instead of an abrupt change in value.

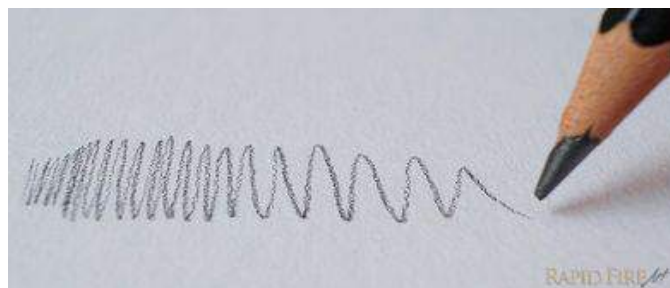


## 2.) Tight Strokes

To get a smooth shade, you'll want thick strokes which are close together. Move your hand high up on the pencil, away from the tip. The more you angle the *side* of your lead towards the paper, the thicker your strokes will be. The thicker, the better! These strokes can be easily blended.



**Tip:** If you re-positioned your hand on the pencil for any reason, scribble on a scrap piece of paper until you regain the same stroke thickness before you continue with your drawing in case you catch a sharp edge.



Avoid holding your pencil like you would if you were writing, especially if you just sharpened your pencil. The lines are more difficult to blend and it requires more time and effort to keep your strokes tight, not to mention cover more ground. A drawing shaded like this will look very scratchy.

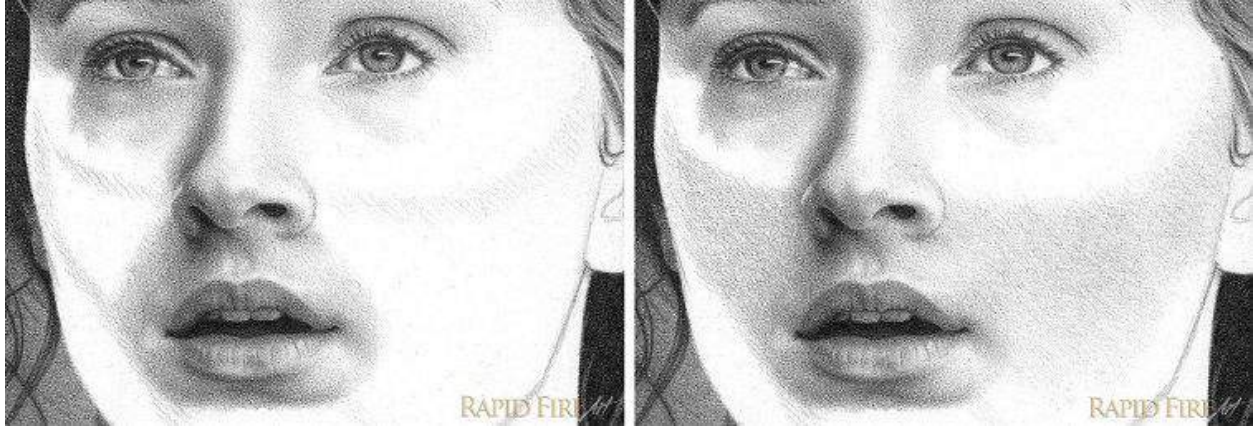
This position can, however work very well for shading areas of the skin with fine lines/wrinkles.

### **3.) Shadow Lining**

This is a method I came up with a while back where I only use a specific shading technique to outline areas of light and shadow before I shade. I don't want to explain it using 3 paragraphs every time I refer to it, so I'm going to call it **shadow lining** from now on. I think it's a car detailing term but it fits, so I'll just use it.

**For example:** If I'm shading a face using the circulum method, I will also use circulum to outline shadows and highlights on the face. If you don't outline your shadows or highlights, then this method may not apply to you (It's very effective for drawing hairlines though).

Here's an example from my [face shading tutorial](#) using the hatching technique.



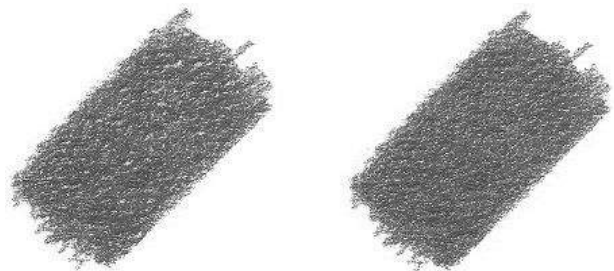
Shadow Lining is a great way to plan out your shading without having your outlines show through in your final drawing.

#### 4.) Reduce White Dots

The more textured the paper, the more white dots you will get across your drawing. This can make your drawing look very grainy.

You can reduce white dots by:

- Shading in many layers. You'll notice that with each added layer, the dots reduce in size and number.
- You can also use a sharp pencil to carefully fill in large or weirdly shaped dots to improve the texture of your shading.
- Or you can blend the graphite using a blending tool of your choice.



#### 5.) Remove Black Dots



Again, if you're using a highly textured paper, you might get some black dots across your drawing. If you're shading skin, these dots can look like



stubble (it's even worse when paired with white dots). If you're going to use a blending tool on your drawing, remove the dots first!

Create a pointy end on your kneaded eraser to dab each of the dots away. Dab lightly! It's

tedious but well worth it.

## 6.) Blend

Before you blend, make sure that your strokes are tight, the shading is even and there aren't too many white and black dots. Blending smooths out your shading, but it's not a miracle solution for lazy people. If your shading is sloppy to begin with, blending isn't going to help.

## Increase your Range of Motion

Are you frustrated by **inconsistent, short, choppy strokes**? Improve the quality of your strokes and increase your stroke length by harnessing the power of your elbow and shoulder.



Use an overhand grip on your pencil paired with movement from your elbow and shoulder to create longer and straighter lines. This will give you a much wider range of motion compared to using just your wrist or finger joints. To shade darker, press your index finger down on the pencil's tip.

## **Use the Right Amount of Pressure**

Your pencil grip and wrist movement should be generally loose, except when shading the darkest values and doing detailing work. Use light to medium pressure and switch to a softer pencil when the one you are using cannot go any darker.

## **Value Consistency**

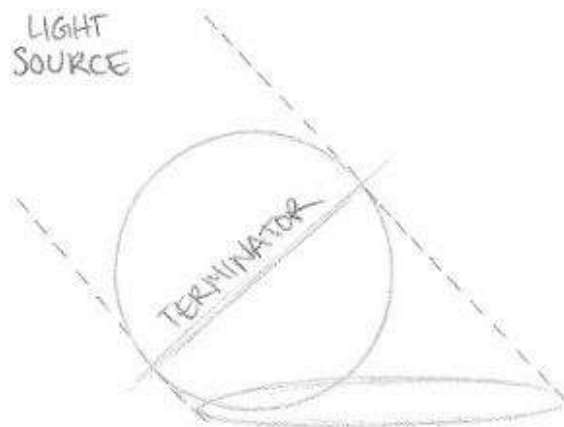
Does the overall shading of your portrait lack balance? Make sure your lighting is consistent across the entire portrait by keeping track of how dark you shade each area of the portrait. You can do this by referencing back to one main value. For me, the main value is the darkest or lightest value already established in the portrait.

Create a value scale to use for cross referencing if needed.

# Understanding Light

When shading, you are essentially reproducing the value of light as it interacts with a form. Understanding light is crucial in order to create a convincing portrait.

I'm going to use a sphere with one main light source as an example because the light is more predictable.



In the image on the right, the light source is coming from the top left. The area facing the light is **the light side** and the area facing away from the light is **the shadow side**.

The transition zone is referred to as the **terminator**.

## The Light Side & the Shadow Side

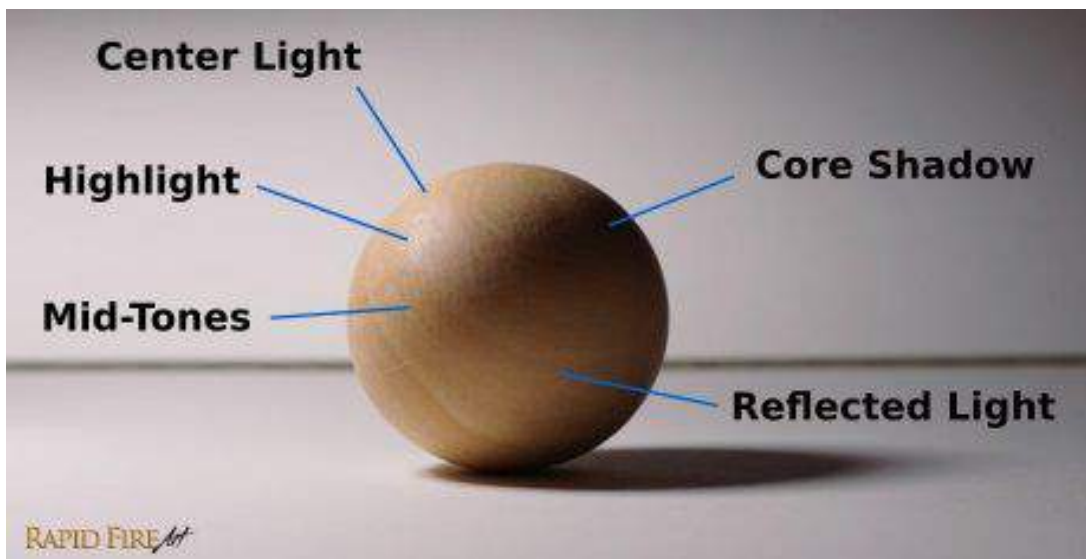


Image 1

The side facing the light consists of the **core light, highlight** and **mid-tones**.

- **Core Light:** The area on the surface of a form that faces the light source directly. It is darker than the highlight.
- **Highlight:** A reflection of the light source on the form. The highlight is the lightest area and will appear in different places depending on your viewing angle. At certain angles, the highlight will not exist in your line of sight.

On glossy surfaces, it will be very defined, while appearing soft on matte surfaces.

- **Mid-Tones:** Mid-tones are the darkest values on the light side, and are lighter than the core shadow. These areas are not facing the light directly. Mid-tones appear darker and darker as they approach the shadow side, as the surface of the form starts facing away from the light.

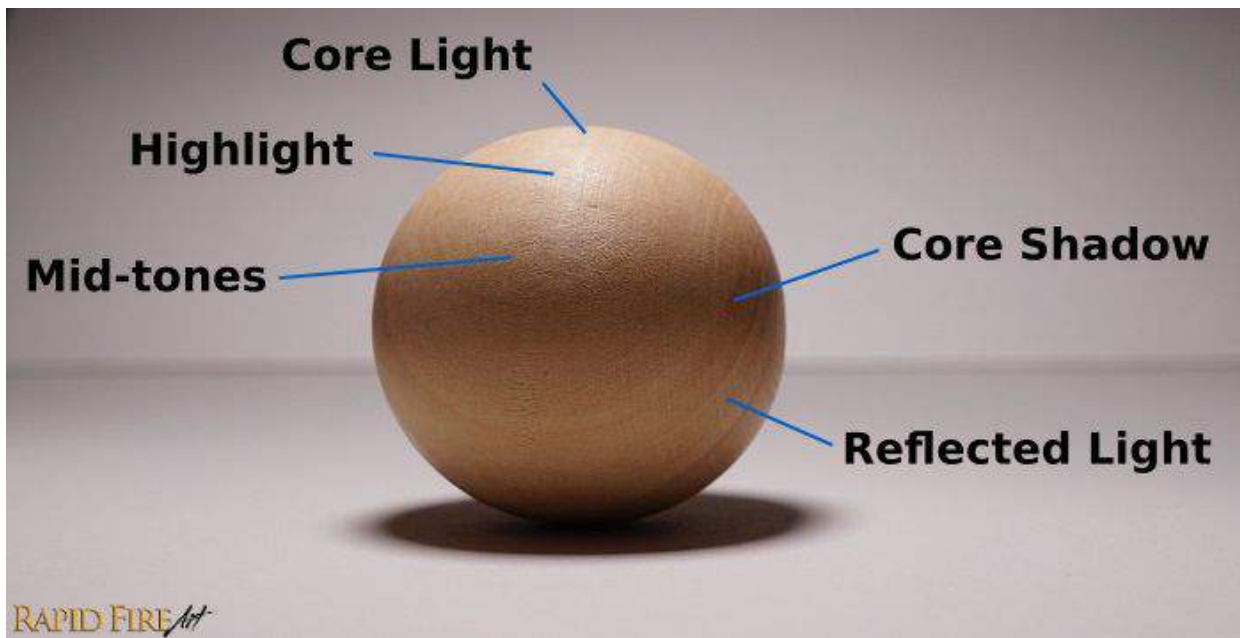


Image 2

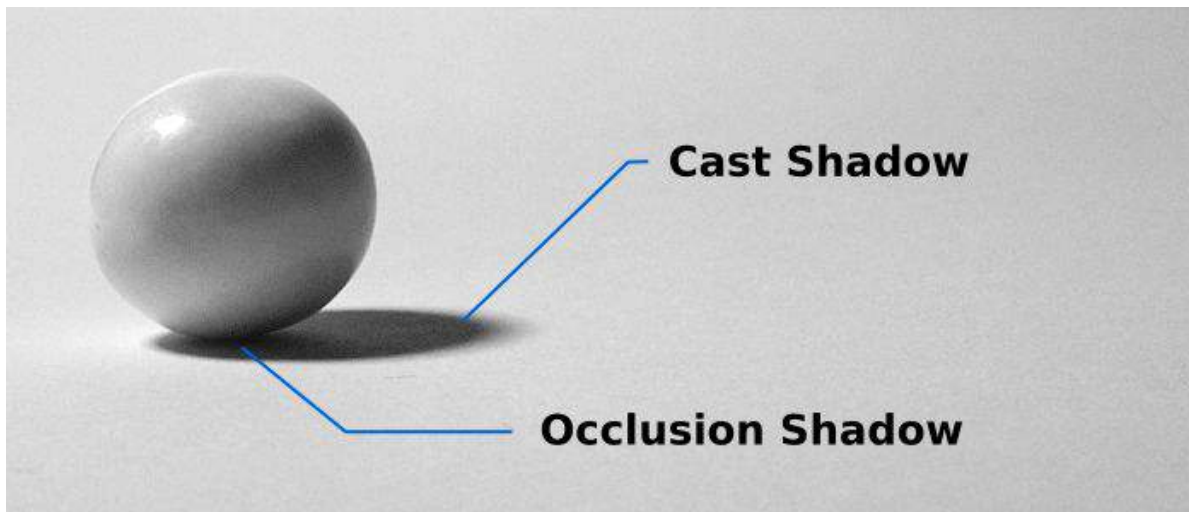
The side facing away from the light consists of the **core shadow** and **reflected light**.

- **Core Shadow:** The core shadow or form shadow is a dark strip that appears after the terminator. The appearance of the core shadow can be affected by reflections or multiple light sources. In 'image 1' the core shadow is less prominent on the left side due to reflections from the white table.
- **Reflected Light:** Objects are not only lit by light sources, but also by reflected light. That's why shadows are rarely ever black. Light bounces off

different surfaces such as walls or even dust particles in the air, creating reflections. These reflections can vary in color and value.

## Cast Shadow and Occlusion Shadow

A **cast shadow** appears when a form blocks light from reaching the surface of another form. The edges of a cast shadow can appear soft or hard depending on the intensity and distance of the light source. In direct sunlight the edges will appear hard, while in diffused light such as a cloudy day, edges will be soft.



The longer a cast shadow gets, the lighter and softer it becomes due to reflected light from the environment around it.

The area immediately below the sphere is called an **occlusion shadow** and is usually the darkest area as it is least affected by reflected light.

**Tip:** You can find the direction of the light source in a scene if you trace the edges of the cast shadow against the form it is cast from.

Can you label the values on the nose sculpture below?



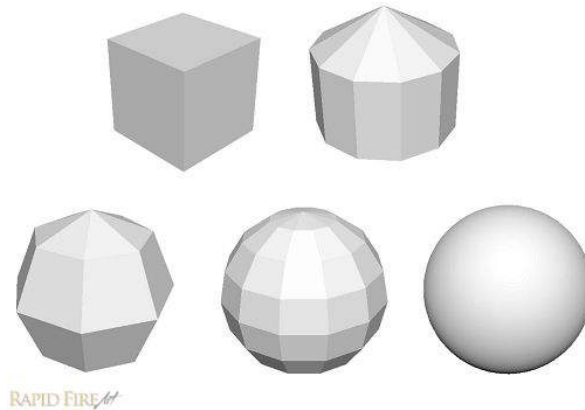
\*\* This nose is available in my store if you want a life sized model to practice your shading on. I designed and sculpted it to look as realistic as possible :) [Click here to check it out!](#)

## Intro to Planes

The hardest part of shading hands down is being able to add the right amount of value in the right spots.

The surface of a cube is much easier for someone to shade realistically compared to a sphere because you can clearly see which sides of the object

are facing the light and which ones are facing away. These flat surfaces are called planes.



Planes angled towards the light directly are the lightest. As the planes start angling away from the light, they receive less and less light, hence appearing darker.

Before shading a portrait, it's good practice to simplify what you see by breaking areas of the face into planes so your brain can process the information better. This allows you to find patterns of light more easily and can also improve your overall drawing accuracy.

## Representing Form

Is your shading incorrectly representing the form you intended to draw?

Before you shade anything, **analyze your subject** until you understand it's **contours** instead of trying to figure it out as you draw. It really helps to

observe your subject from multiple angles. Once you familiarize yourself with your subject, decide on how you will shade before you actually shade.

Here are a few things to keep in mind before and while you shade:

### **Abrupt vs Gradual Shading Transitions**



If you want to convey a round edge, avoid abrupt shading transitions. The more gradual your shading is, the more smooth your edge becomes.

### **Is Your Drawing Too Flat?**

It's common for beginners to leave large areas of their portraits (such as cheeks) white. Areas that remain white or are shaded with a solid tone indicate that they are facing the same direction. Have a look at the center forehead plane in the three images on the right.

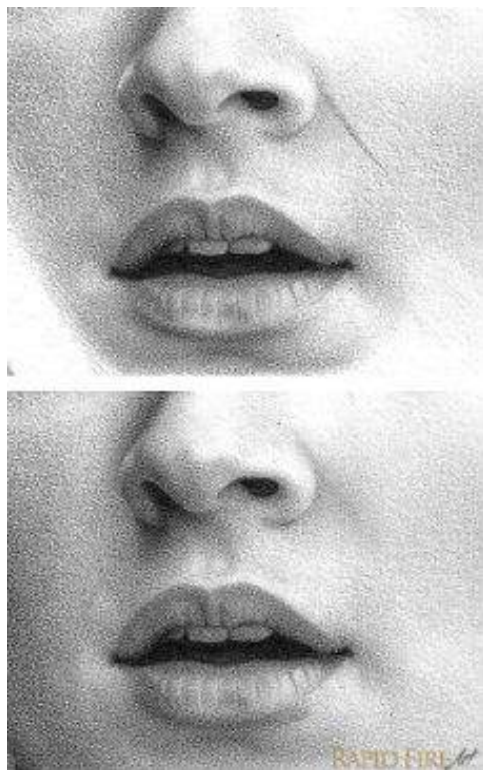
The forehead's center plane in the first image is shaded with a solid tone, making it appear flat. The following two images introduce a range of very subtle tones, giving the surface slight bumps.



The addition of these values are subtle, but do their job in transforming a flat surface into a more shapely one. Also take a close look at the right forehead plane. The shading is even more subtle, but still does not come across as flat.

## **Bumps and Ridges**

Sometimes, we may have the tendency to over represent or exaggerate subtle forms such as eye bags, pimples and smile lines. Instead of defining a form using an outline or line, practice representing these forms using gradients.



# Shading Practice

Download the printable worksheets below and follow the instructions carefully. If you don't have a printer, that's okay. Follow along using your sketchbook!

[Page 1](#), [Page 2](#), [Page 3](#)

## Exercise #1: Pressure Control

For the exercises below, try to implement the shading tips and techniques mentioned in Part 2 of the tutorial. You can apply different shading techniques to the exercises too (cross hatching, circulism, etc).

**1.a)** Without lifting your pencil or taking any breaks, draw tight lines back and forth from one end of your sketch book to the other. Gradually increase your pressure as you go. Your goal is to get a smooth gradient.



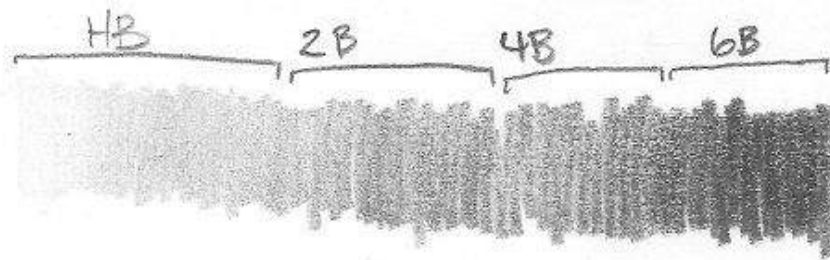
**1.b)** Do it again, but this time, go from dark to light.

**1.c)** Shade a solid tone without lifting your pencil.



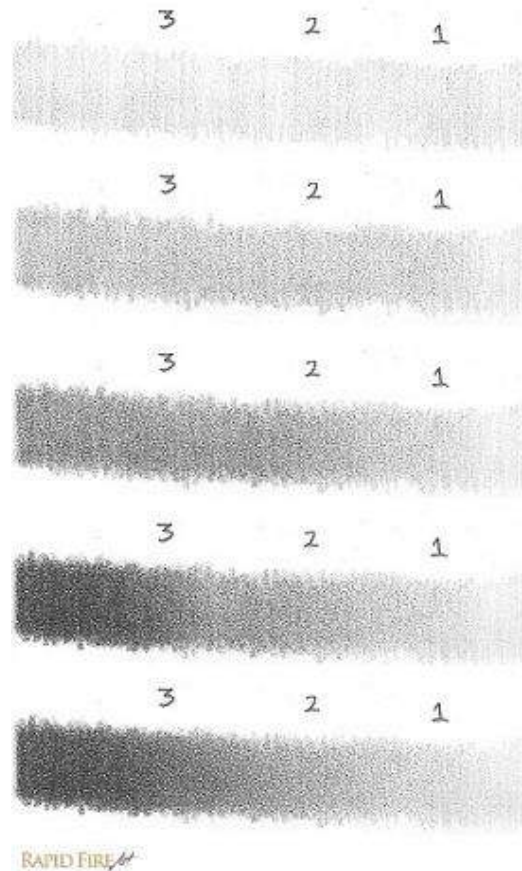
**1.d)** Shade a solid tone from one end of your sketchbook to the other. Lift your pencil every now and then and rotate it slightly before you continue shading. Don't forget to scribble on a scrap piece of paper to test your pencil's sharpness before you continue! Your goal is to **make it look** as though you **never lifted the pencil** at all.

**1.e)** Pick out a few different pencil grades such as HB, 2B, 4B and 6B. Shade in order from hardest to softest pencil and go from left to right. Your goal is to blend the values together seamlessly so you get something that looks like image 1.a).

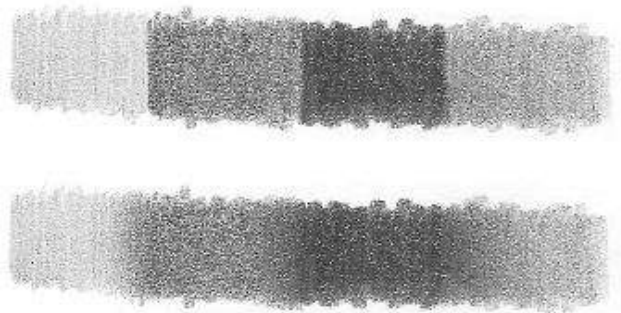


**1.f)** Layering: Use an HB pencil to shade an even layer of graphite across the page. Split the area into 4 spaces labeling them 3, 2 and 1. Add a darker layer of graphite over your first layer from left to right and ease up on the pressure as you approach 1. Do the same thing except this time stopping at 2. Then the same thing for 3.

At this point, you may notice some inconsistencies. Make corrections by adding a few more layers where needed.

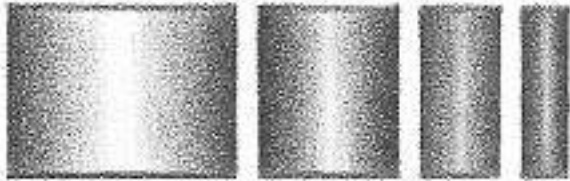


**1.g)** Select a few different pencil grades and shade a series of rectangles. Use **only** your pencil to blend each of the values together.



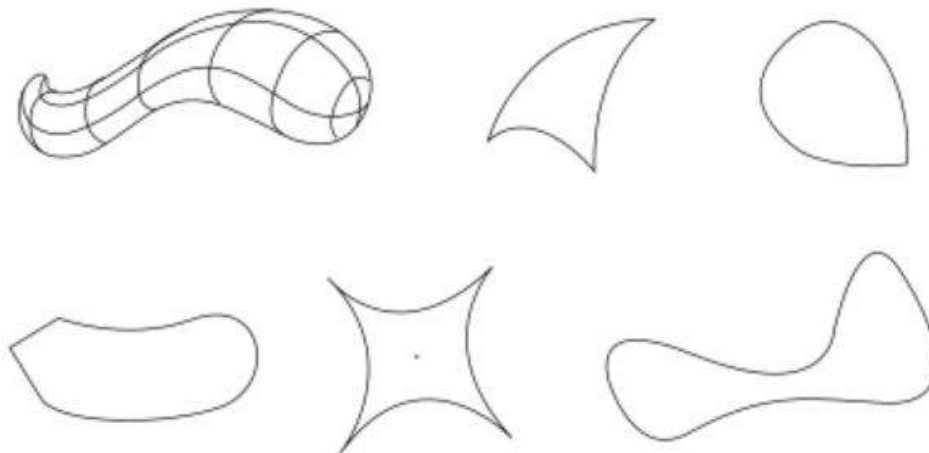
## Exercise #2: Stretch and Compress Values

**2.a)** Draw a series of wide to narrow boxes. Shade each one using vertical strokes. Follow this pattern using one or multiple pencils: Shadow, Mid-tone, Highlight, Mid-tone, Shadow.



## Exercise #3: Analyzing Contours

**3a.)** Add contour lines to each of the shapes below.

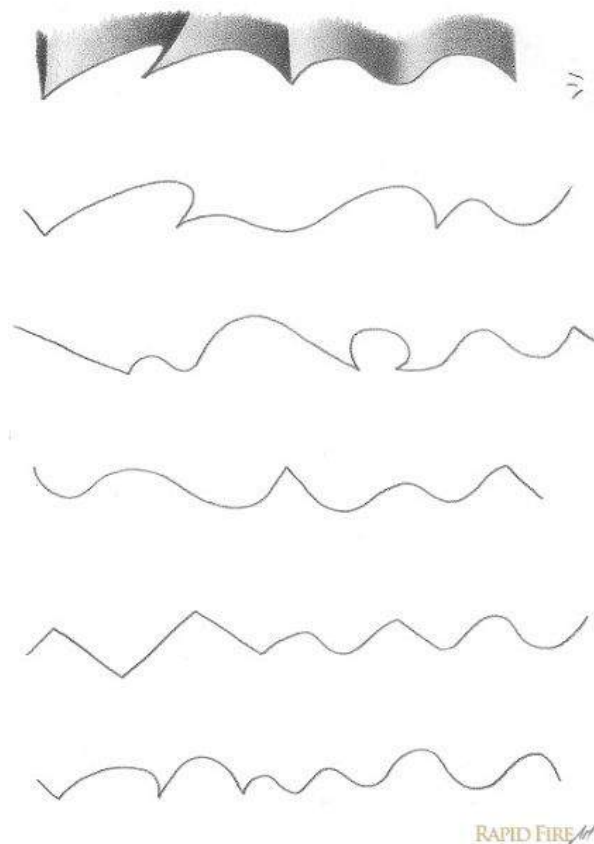


**3b.)** Make up your own shapes and add contour lines to them. Once you're done, decide where the light is coming from and shade them in.

**3c.)** Select 3 very different faces from a magazine and draw vertical and horizontal contour lines across each face.

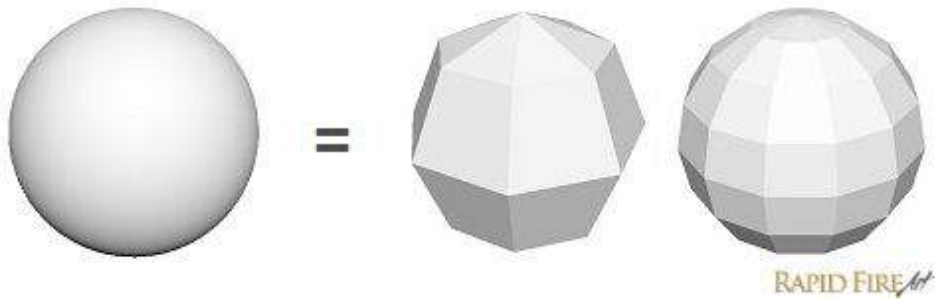
#### **Exercise #4: Edges, Light and Shadow**

**4.a)** Determine the direction of the light and shade vertically along each jagged line. Around sharp edges, tighten your terminator and loosen it around smoother edges. If you really want a challenge, give each image cast shadows as well.

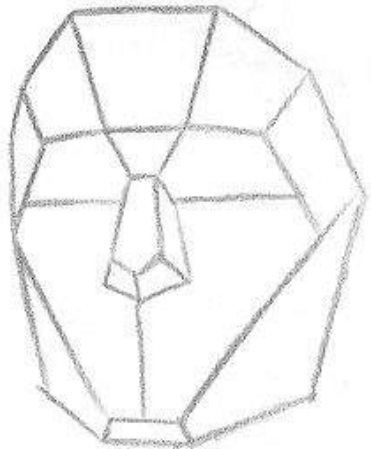


## Exercise #5: Planes

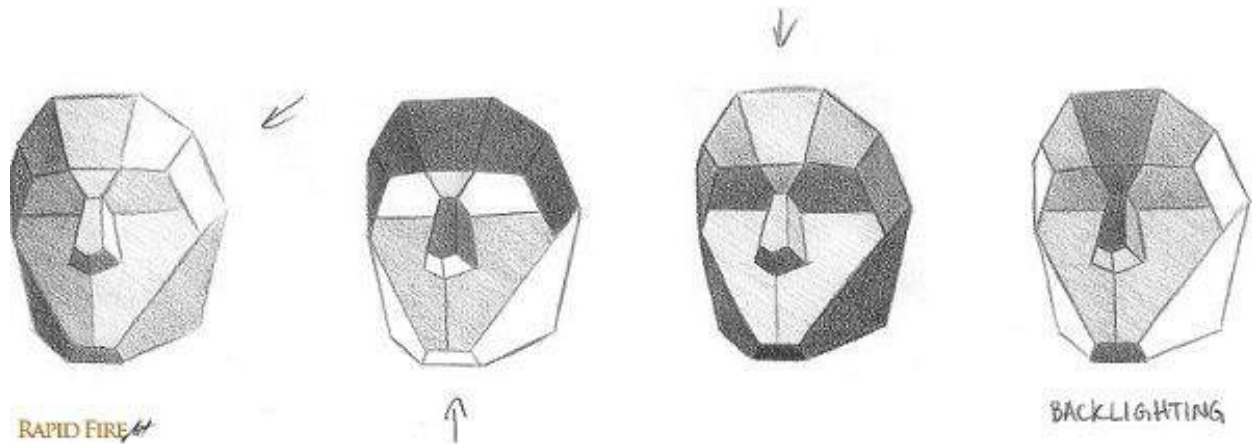
**5a.)** Select any 3 objects around you and simplify them using geometric shapes. Shade them once you're done.



**5b.)** Find 3 faces in a magazine and use a pen to outline major planes.



**5c.)** Draw planar faces and shade them by coming up with as many lighting arrangements as you can think of.



## Exercise #6: Elbow and Shoulder

**6a.)** Shade the 2 shapes using an overhand grip while moving your elbow and shoulder. Make sure to scribble on a separate sheet of paper before you begin to increase the thickness of your lines. Make sure that each stroke you make reaches the full length of each shape. Only lift your pencil once you get from one end to the other.

This is my longest tutorial to date, consisting of more than 3,400 words! I tried to cover as much as I could in this tutorial. If there's something you'd like me to add, please let me know!

[Click here for my extensive tutorial on how to shade a face!](#)