

ANATOMY: HOW TO DRAW HEADS

BY MITCH LEEUWE

YOU'LL LEARN:

- WHERE TO START
- CONSTRUCTION
- HOW TO APPLY



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ANATOMY: HOW TO DRAW HEADS

BY MITCH LEEUWE

HI THERE!



Let me introduce myself. I'm Mitch Leeuwe and am an illustrator from the Netherlands. Thank you for purchasing my book about anatomy. Back in the days when I wanted to learn about anatomy, I found it very overwhelming. So, my goal with this book is to make learning anatomy understandable and accessible for you.

I started out by trying to learn every muscle and bone and I really began to memorize all those different

parts. But after a while I noticed I forgot a lot of their names and in the end, I always had to look it up for reference.

That's when I started to look for tutorials about anatomy for animation. I found examples where the anatomy was simplified and broken down in understandable formulas and shapes. This made it way more fun and easier to learn. So, I started making this book with the idea of putting everything together.



HOW TO USE THIS BOOK

I mostly draw cartoon characters, which are not hyper realistic. And because of that I'm always focused on simple shapes first. But even if you want to draw realistic anatomy, I think this book can be very helpful. Because these simple shapes will form a solid foundation before adding all details and muscles on top.

You can use this book to learn from or use it for reference when you are drawing a difficult pose. If you are just starting out, the best way to learn is to take small steps. It's okay to start by copying the drawings in this book and try to examine all different body parts.

Once you get comfortable with copying these drawings, you could start looking for photos of people in which you can see the structure of their muscles. Like a photo from a boxer or a ballerina in a strong pose. Draw the characters first, then add muscles on top, try to see how the muscles work and where they are connected. It takes a lot of time

to learn anatomy, so don't get discouraged if it takes a while to get the hang of it.

Be patient, try to have fun and enjoy the process. Start by doing thirty minutes every day, instead of doing a couple of hours in one go and get frustrated with it. Doing a bit every day will make a big difference after some period of time. When you have difficulty drawing shapes, start practicing drawing cubes, spheres and cylinders. When you can comfortably draw shapes on paper in 3D, you can basically draw anything. By mixing up those shapes you can build any object you want.

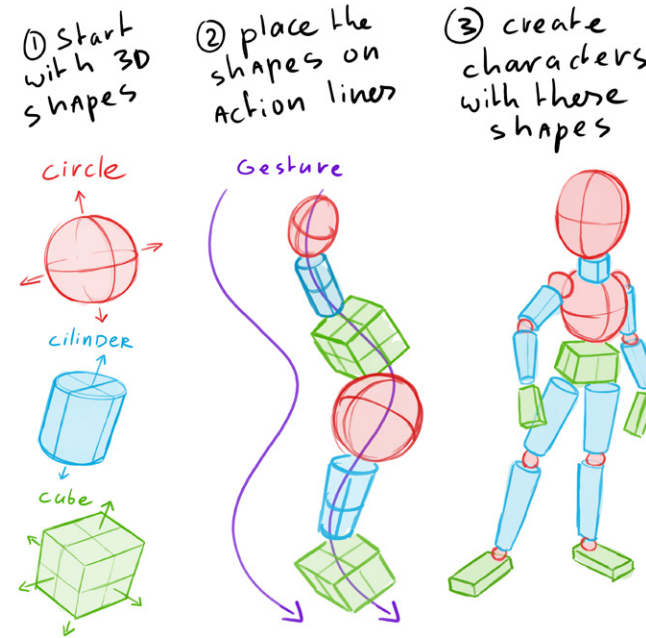
THE BASICS

CONSTRUCTION, LINE OF ACTION
AND COMBINING THEM

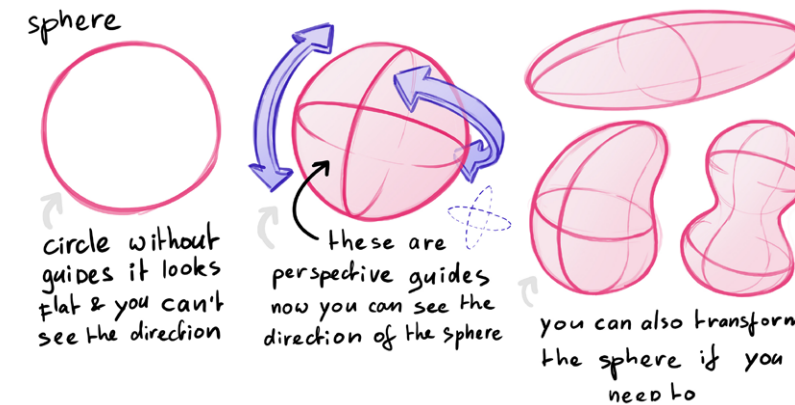
CONSTRUCTION

Construction is like the foundation of your character. With a good construction you can create a strong and solid character. To get started, follow these steps:

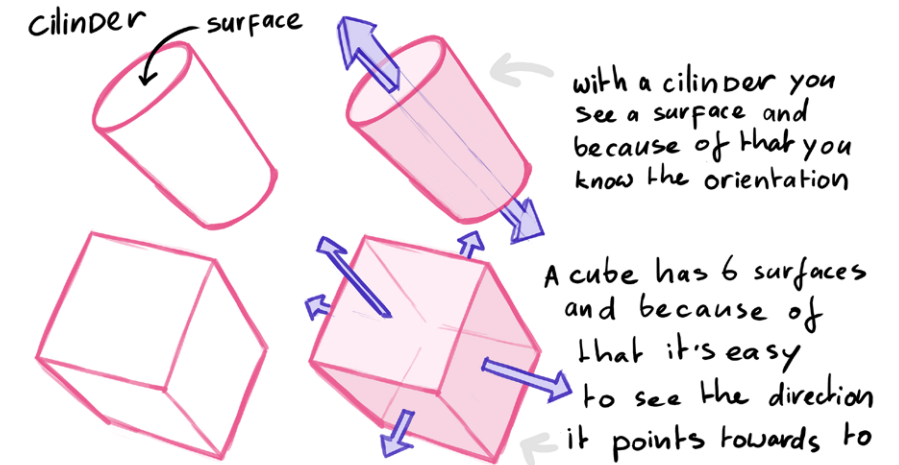
1. For drawing, I always use three kind of shapes. A sphere, a cylinder and cube. I use these shapes because you can build anything with them and they are easy to rotate in 3D. You can stretch and distort these shapes or combine them to make variations.
2. When I draw characters I always use a line of action. You could also call this the character's gesture. Here you can also see the benefit of using 3D shapes when you allow them to follow an action line. This is also a great way to practice it. First draw a line shaped like an S and let the shape follow the action line. This way you get a nice sense of flow and depth in your characters.
3. Here you can see how I use spheres, cylinders and cubes to draw a character. Drawing your character



like this helps you to understand how it moves the 3D world. When you first draw your character like this you can add its anatomy on top of it. Starting like this is way easier and lets you focus first on getting the basics right, like pose, overlap and depth, before you start adding the details.



Here I'm going more in-depth about drawing the basic shapes. Spheres are great to build your character with, but without perspective lines you can't see the direction. With a cylinder, you can see direction because it has three surfaces. With a cube it's really clear what the direction is, because it has six surfaces. If the direction and the volume of a shape aren't clear, you could add perspective guides.



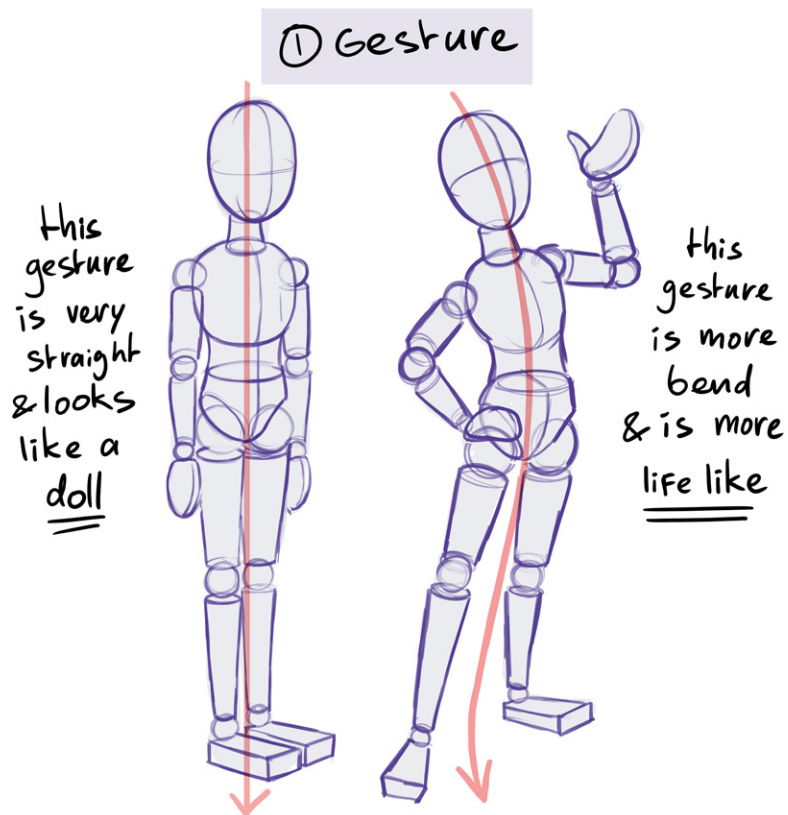
STUDY TIPS

Fill a page with different shapes, try to see their direction. Now add perspective lines, is the direction more clear now?

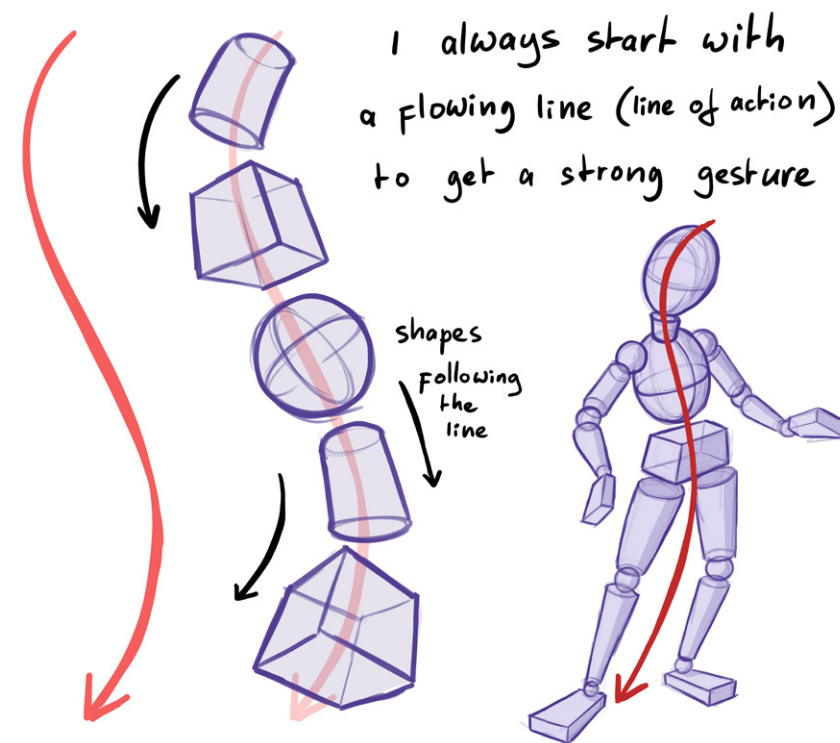
LINE OF ACTION & GESTURE

The line of action is a tool to give your character a strong pose. It's an imaginary line you can draw through your character. Without it, your character looks stiff. So, whenever your character's pose looks stiff, check the line of action first.

A line of action gives your character force, makes it more readable and it will look more dynamic. When I start drawing a character I always start by deciding what I want to draw. The story behind the drawing. For example: a baseball player is going to hit the ball. Based on that one sentence you can make different action lines that depict the desired movement in the most fundamental way.



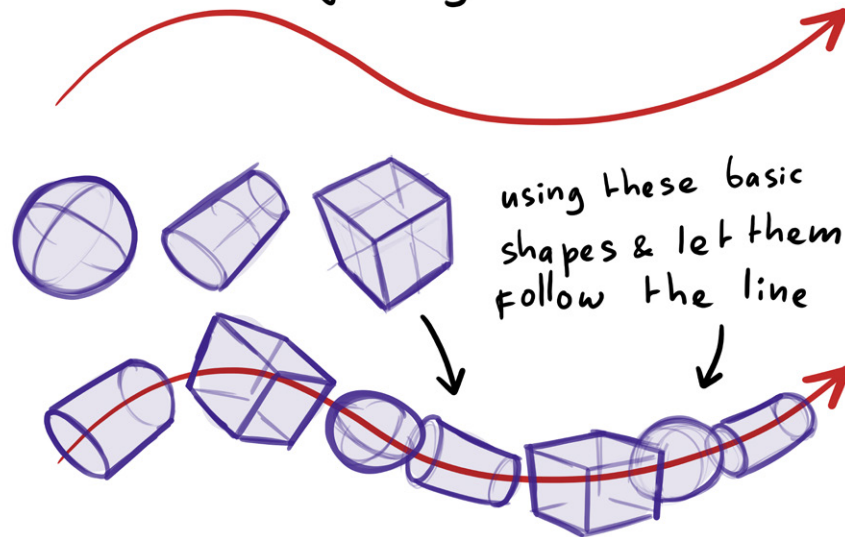
flow & line of action



STUDY TIPS

Look up some photos of people doing sports or people in other types of motion. Practise to catch their pose by drawing one single line. This is called the action line.

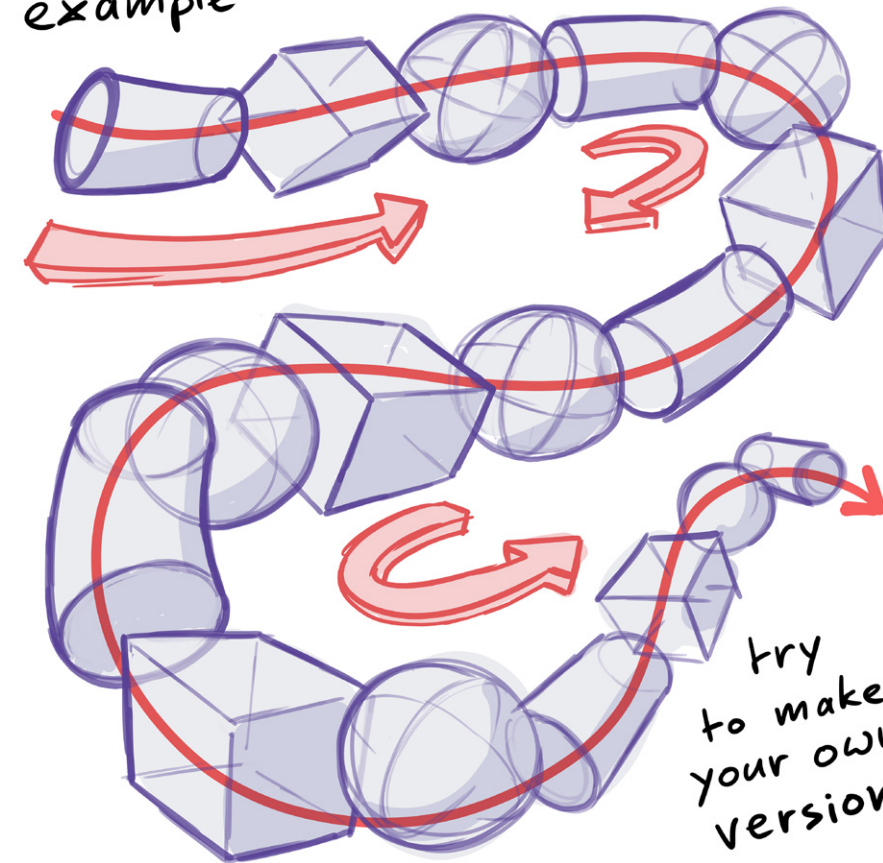
A good exercise is to draw a flowing line



Here, I'm showing an example of how to practice drawing shapes that follow a line of action. This exercise will help you understand the relationship between lines of action and construction. With this, you give shapes a gesture. When you don't use a line of action, your characters will look stiff and when you aren't using construction, your characters won't look solid.

If you want to learn more about this, look for gesture drawing classes or tutorials. Doing gesture drawings is a great warm-up. In short: gesture drawing is making figure drawings by focusing on the gesture of the pose.

example



STUDY TIPS

Draw a swirling line and draw shapes that follow that line. This gives the shapes a flowing direction and interconnects them.

DRAWING FUNDAMENTALS

There are a bunch of rules you could apply to improve your drawings. Of course, these are rules and you can decide for yourself if you want to follow them or not. I do assess my drawings occasionally by these rules to see if I can find something to improve. This book is about anatomy and not so much about drawing principles as such, but they can help you with drawing anatomy. Therefore, I wanted to include them in this book.



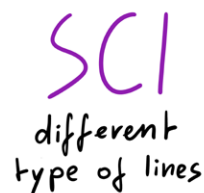
Avoid parallel lines by mixing straight and curved lines. This will make your drawing look more organic and dynamic.



Give your drawings more contrast and guide the eye. The level of detail attracts the eye.



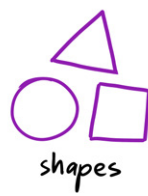
Try to see water flowing through your character, or a ball bouncing between the walls. Find the right rhythm for a flow.



If you use a varied combination of S C and I shaped line types, it will make your drawing look more dynamic



Use contrast in sizes. Contrast leads the eye and makes your drawing more interesting.



You can combine the main types of shapes (circle, triangle and rectangle) to make anything you want.



It can be hard to see the direction or angle of an object, using these lines can help make that clearer.



An object that is bigger feels closer by than an object that is smaller.



Due to perspective you can create the illusion of one end of an object appearing bigger or smaller compared to the other.



Avoid parallel lines to create a rhythm and direction in your drawing.



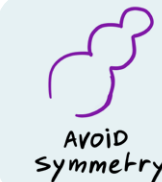
Creates more depth in your drawing and gives it a more dynamic feeling.



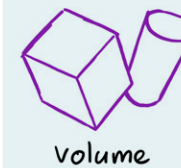
An object farther away lays higher on the surface than an object closer to the viewer.



Tangents don't often occur in nature and in your drawing, they attract the eye intentionally.



Symmetry looks man-made and can make your drawings look stiff.



When your characters look flat they don't have volume. Volume adds depth to your characters.



By overlapping different objects you create depth.



A strong silhouette, with a nice balance between negative and positive space, makes your character better readable and clear.



By adding a twist to your design, it will look more dynamic and interesting.

HEAD CONSTRUCTION

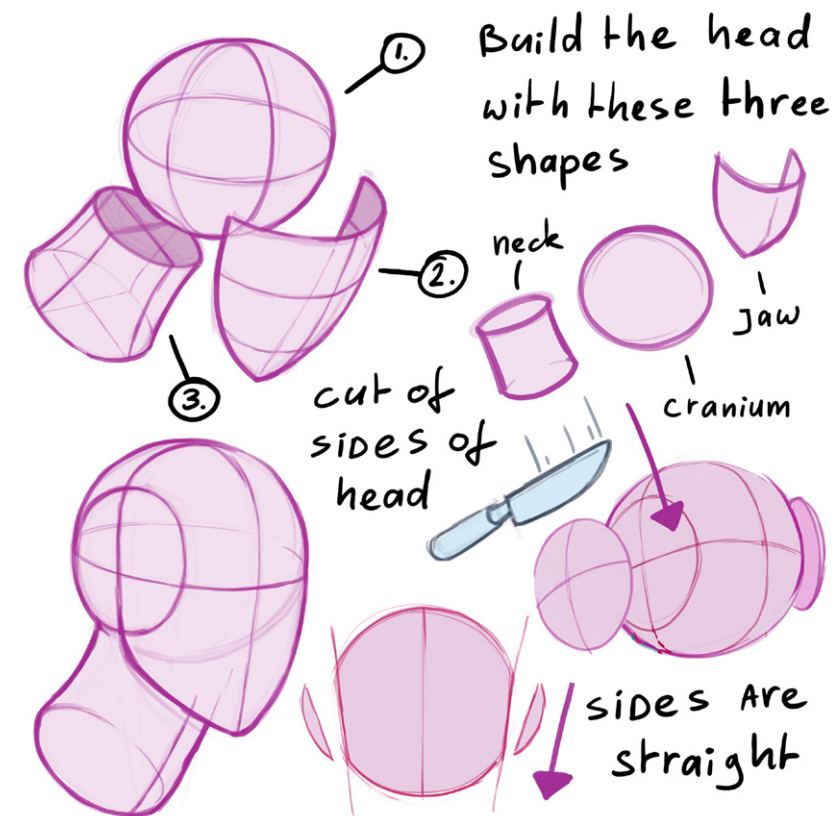
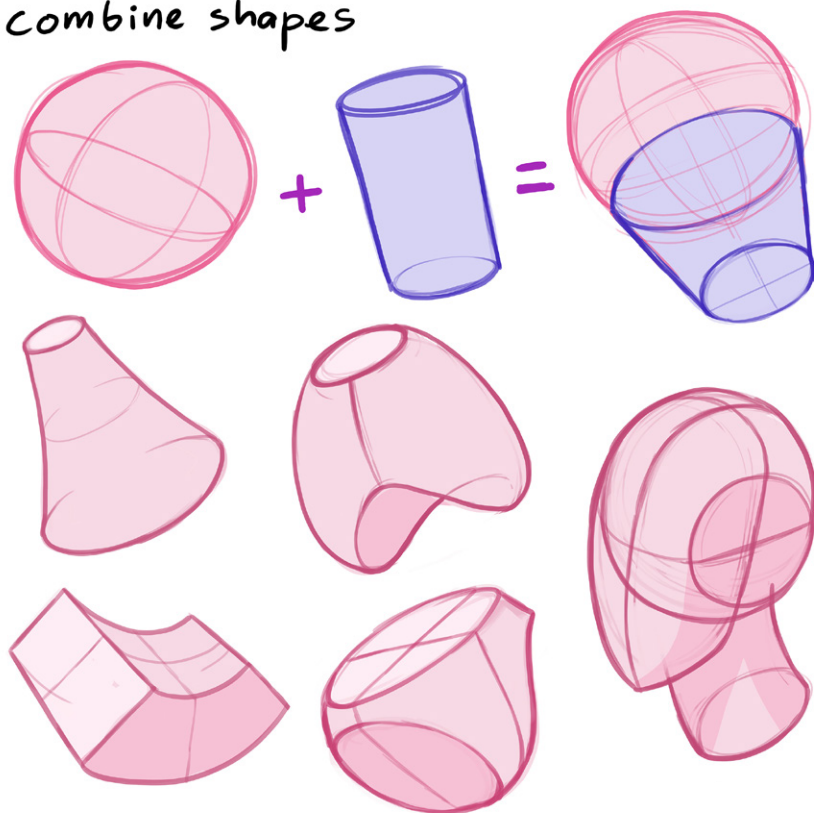
BASIC SHAPES

By combining a sphere, cylinder and/or cube you can create any shape you want. Think of it like clay. You can transform the shapes. Pull, squash and even cut the shapes in any way you like.

STUDY TIPS

Try to draw your own shapes from a cube, cylinder and sphere. See what you can come up with and try to combine, morph and slice them up.

combine shapes

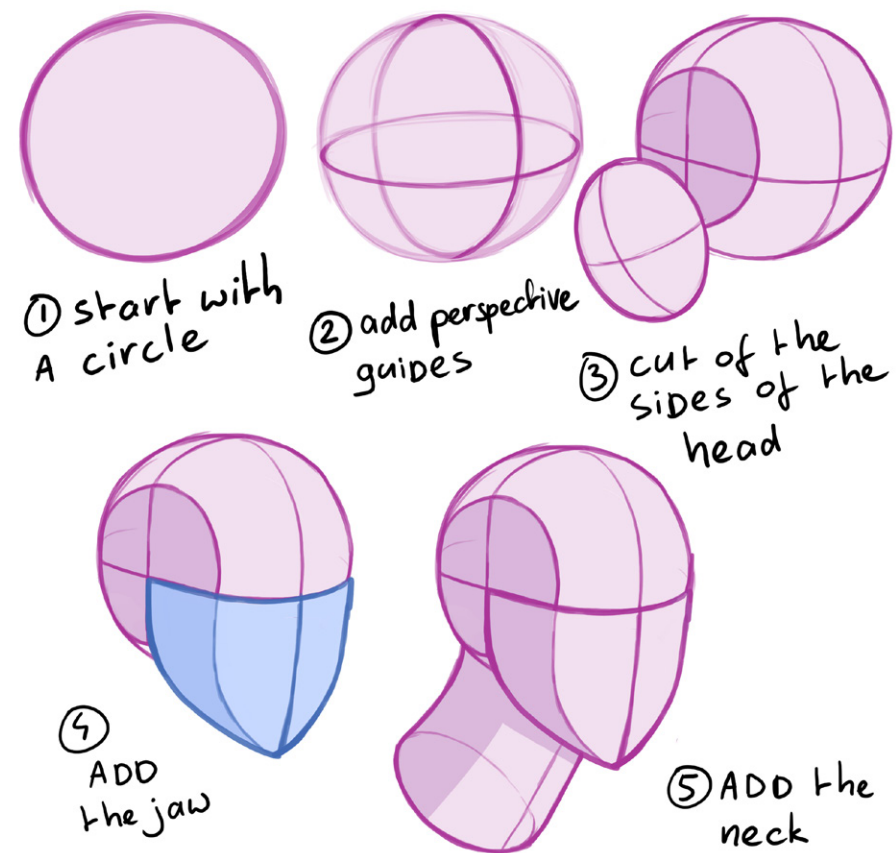


When drawing the head, I try to keep it really simple. I break it down into three shapes. A sphere for the cranium, a mask for the face/jaw and a cylinder for the neck.

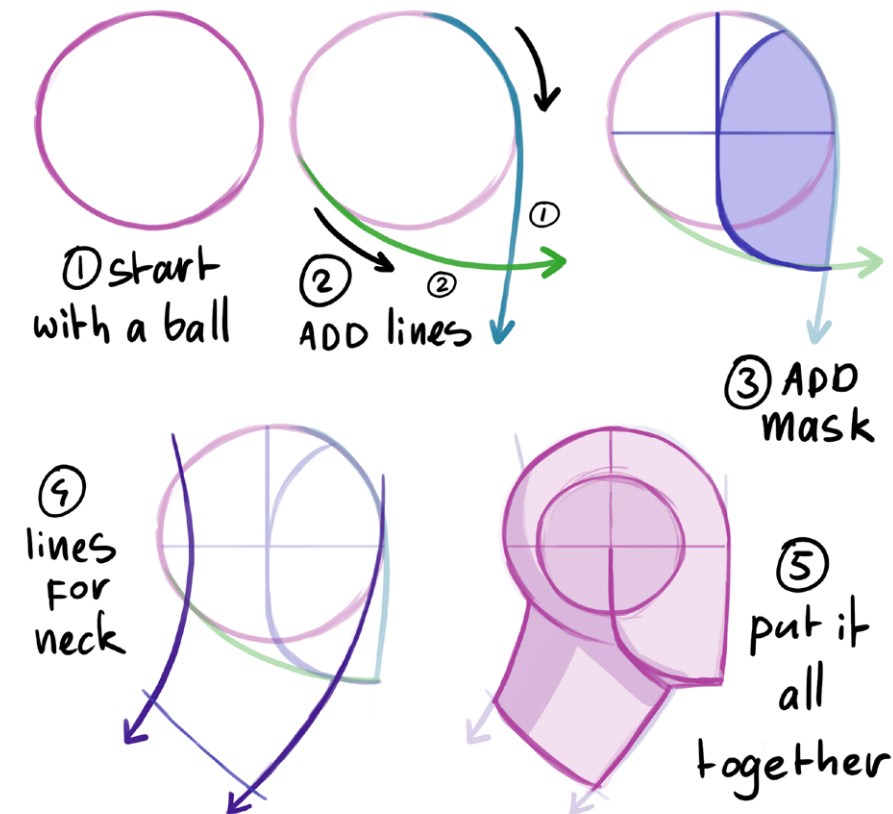
So, I start with a sphere for the cranium. I cut off two sides with an imaginary knife (see image). For the face, I make a mask that I put on top of the sphere. And lastly, I use a cylinder for the neck.

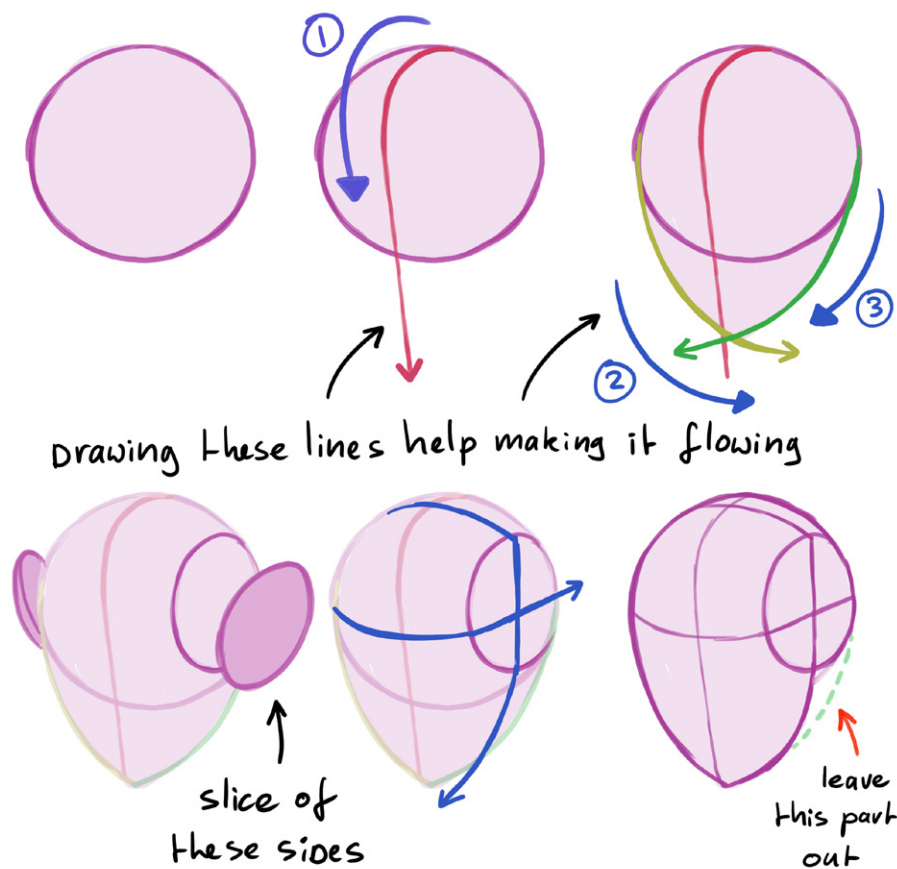
This is another example of basic steps to create a base for the head. Try to follow these steps. This is a basic shape. By making individual parts either longer or shorter, you create your own designs .

The proportions in the example stays resemble those of a realistic human head, but often I play around with these shapes to make more caricature character types.



These are same steps but now from a side profile. See where the neck originates from.





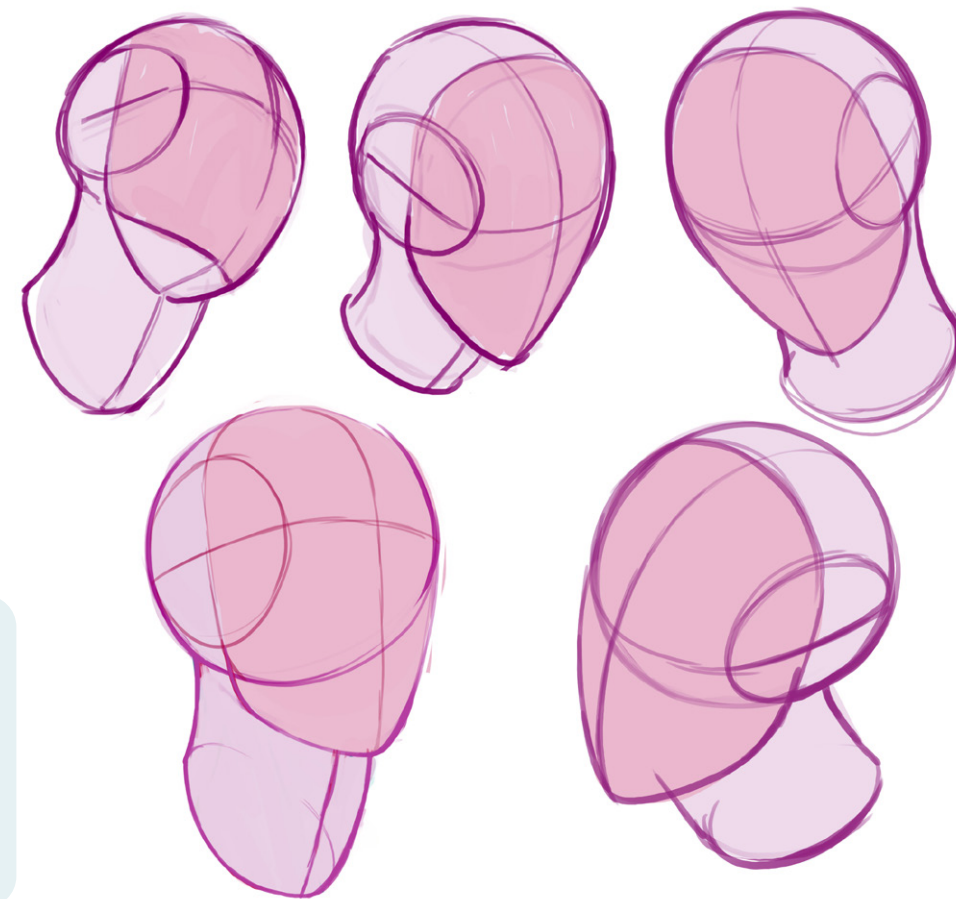
ANGLES

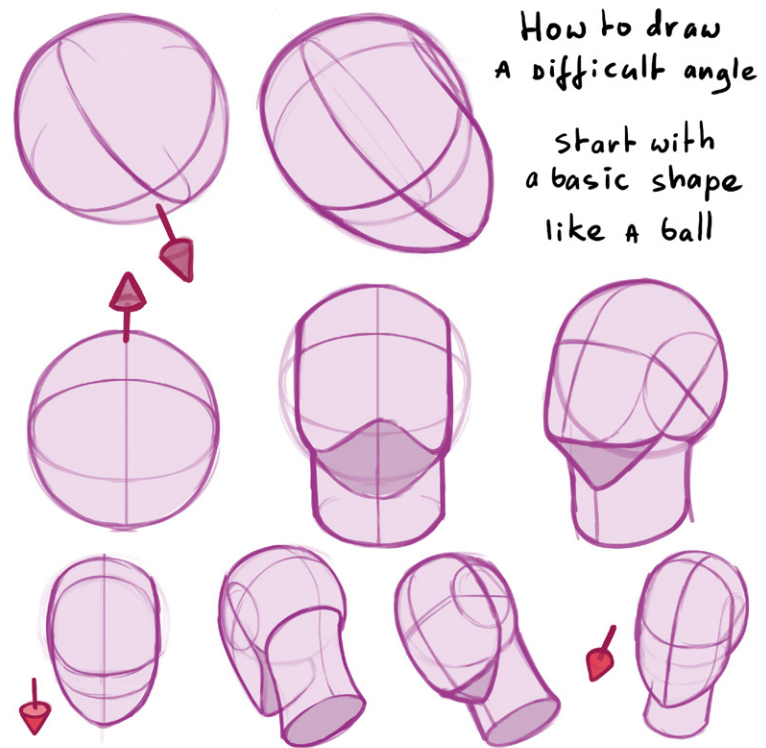
I really like this approach. You draw a line from the top of the head straight down and after that add lines going from one side of the head to the other. This makes it very fluid and it is very easy to draw. In the last step, you can see I removed a bit at the back of the skull and behind the jaw.

This approach also makes it easier to draw the head from different angles, like in these examples.

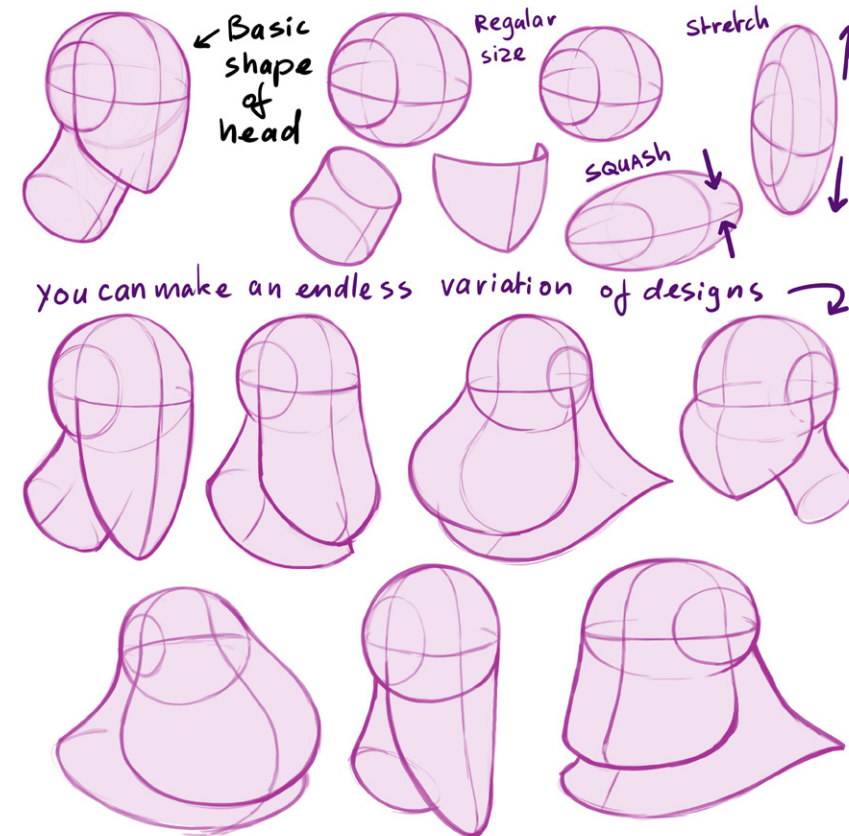
STUDY TIPS

Practice drawing the head from different angles, following these steps. You could also copy the heads from the example, following the same steps I demonstrated.





More examples of drawing the head from different angles. A sphere is easy to draw from a weird angle, so if you do that first, you can add shapes afterwards. And that makes it way easier to draw the head from different angles.



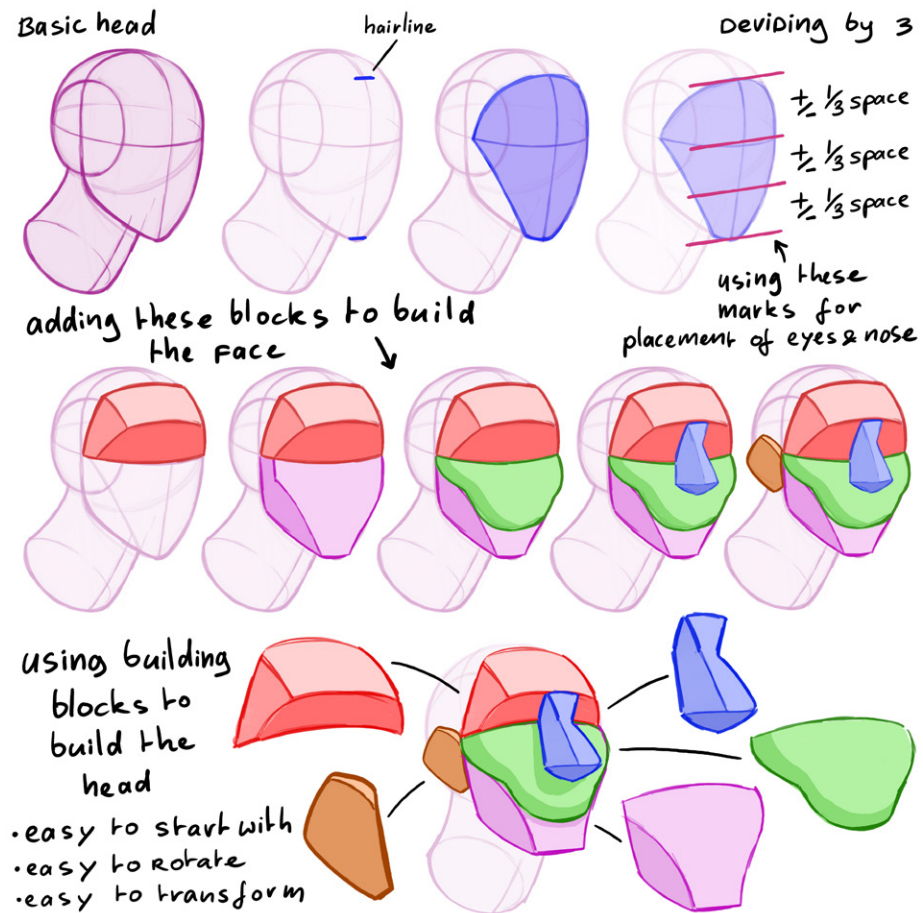
STUDY TIPS

Try to make your own versions with this basic head construction. Try to see how far you can go by changing these shapes.

Earlier, I mentioned the shape of the head. I usually start off with a realistic base and then, I change it to make my character designs more caricature-like. You can squash or stretch the shapes.

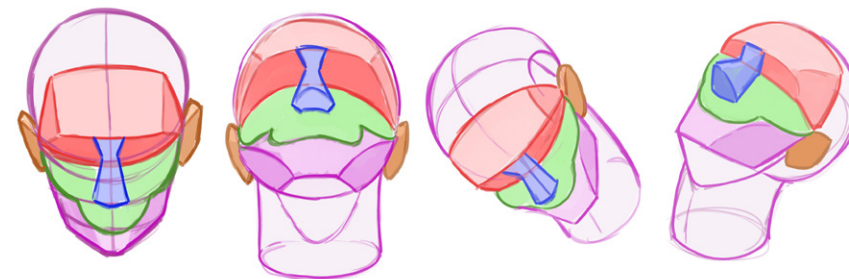
SIMPLIFIED ANATOMY

Here, I show how I draw the anatomy for the face. I really try to keep it simple so it's easy to remember. So, breaking down the face in a couple of shapes like in the image on the left. You can play around with the proportions of these shapes to get variations of the head.

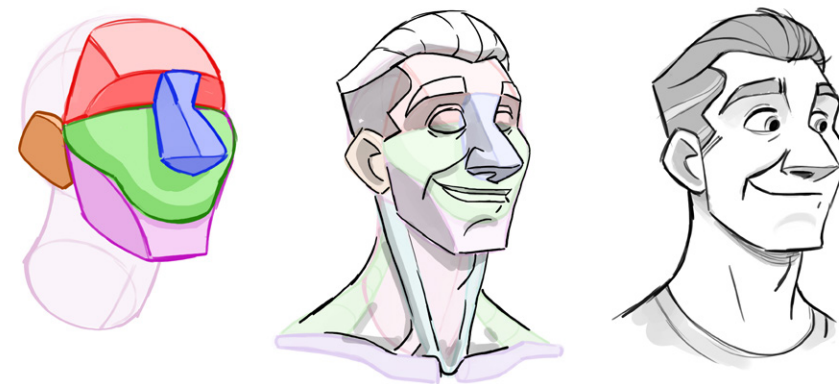


I draw these shapes in a very basic way so they are easy to draw from a different angle. This is hard enough so try to keep it as simple as possible for yourself.

using the shapes for difficult angles



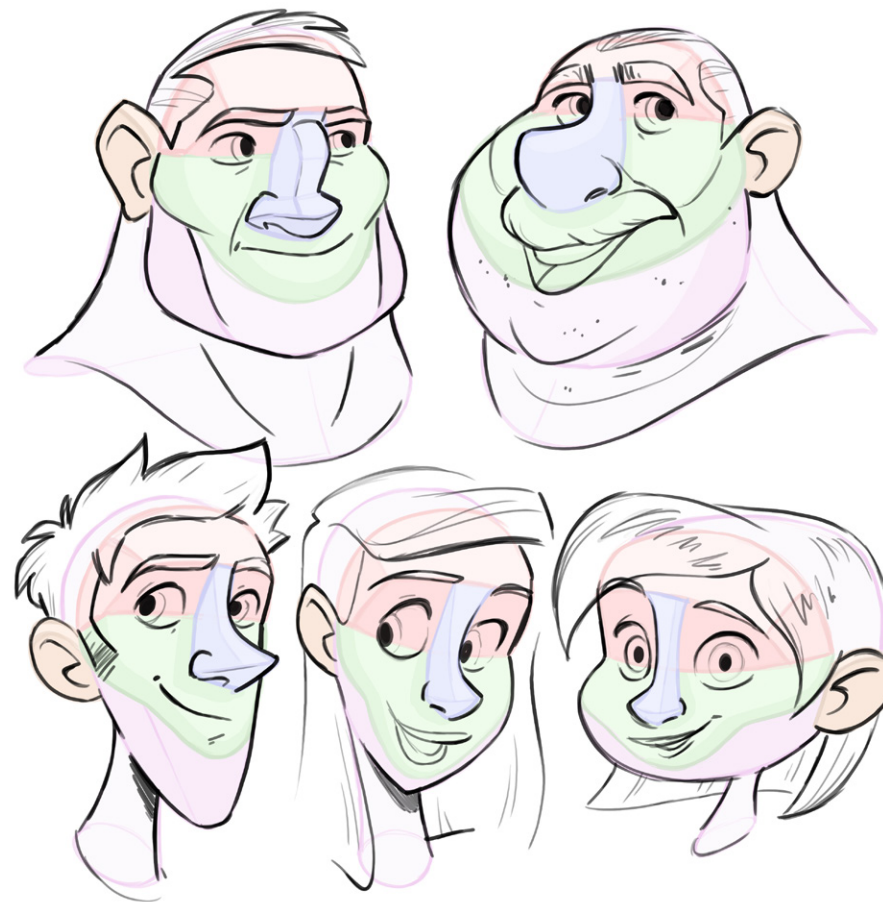
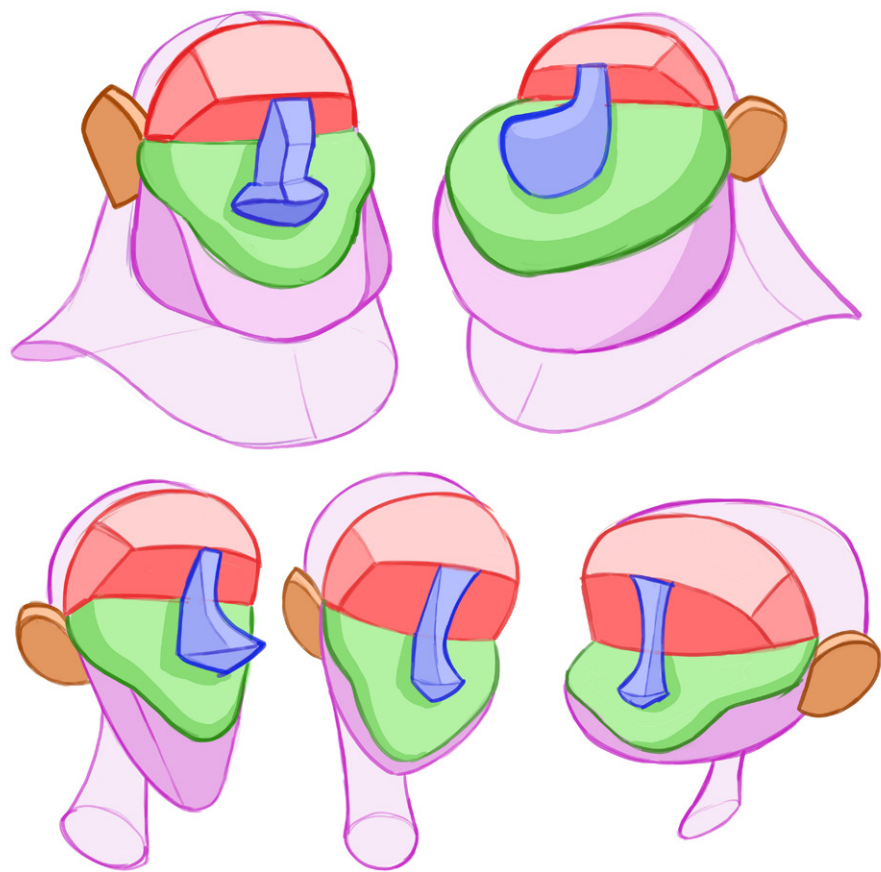
Drawing on top of the shapes



STUDY TIPS

First learn to draw the regular $\frac{3}{4}$ view. Once you have nailed that you can start practicing by drawing a head from different angles.

Here I show some variations of the heads. If you look closely, you can see I use those basic shapes and change the proportions to make variations.



STUDY TIPS

Start creating your own characters with these building blocks. Try using different proportions to make a variation of characters. Don't be afraid to go too far with this. It's good to discover how far you can push this to create interesting characters.



FINAL STEPS

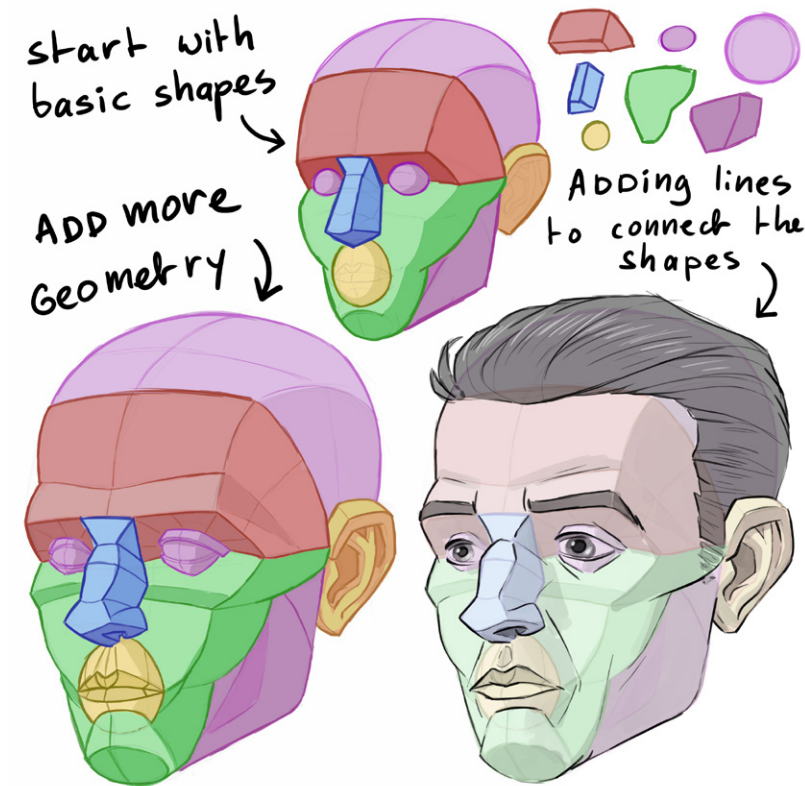
These are the steps I take to draw a head. Using these 1/3 measure steps makes it easy to remember and to draw. Using those flow lines in the second step, when I add the jaw to the circle, helps to get a nice flow in the head shape. I'm using simplified formulas for the head so they are easy to draw and to understand.

This is great for when you are just starting or are only drawing stylized characters. If you want to draw more realistic characters you can use this as a foundation to draw on top of.

STUDY TIPS

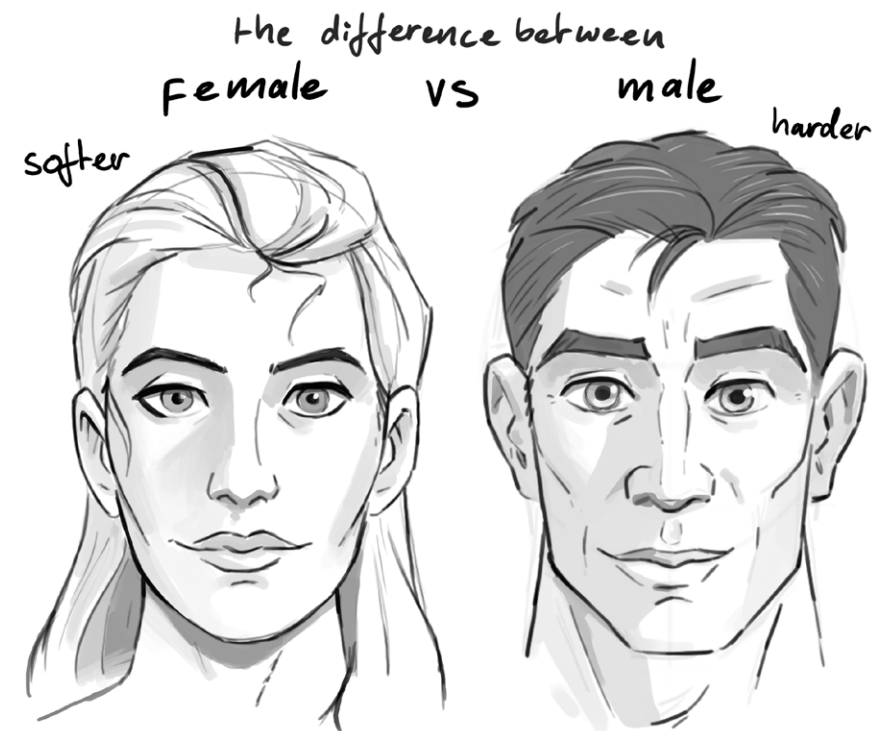
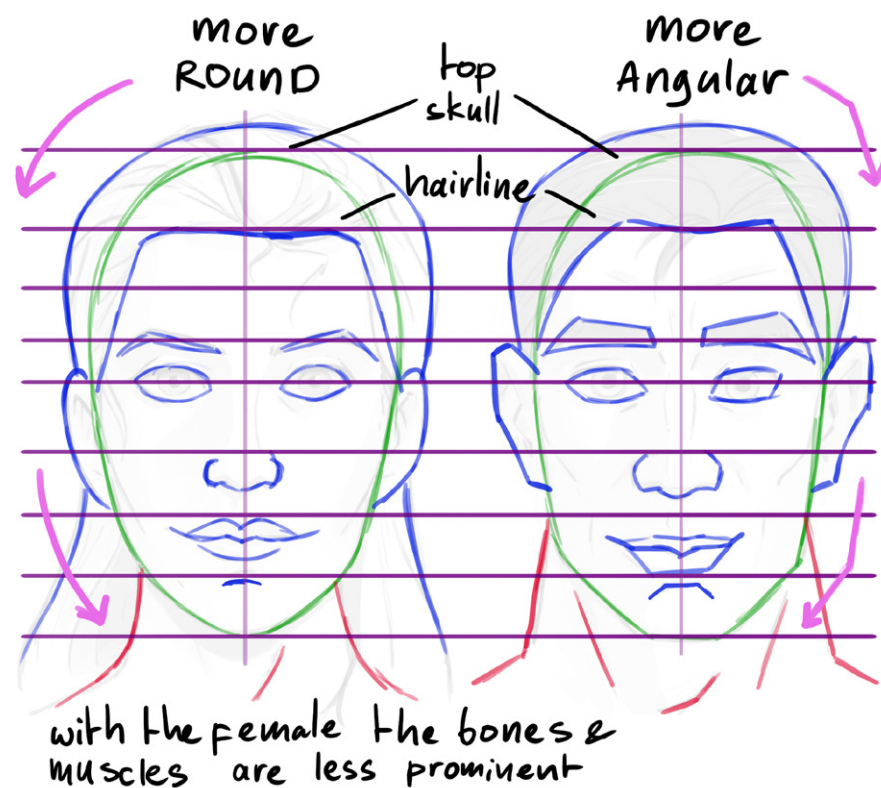
Draw a realistic head and draw a grid on top of it so you can see the planes and surfaces on it.

Here, I'm using the same steps as I showed earlier but then more detailed and more realistic. This shows that you can make it as complex as you would like. It also shows the importance of thinking in planes/surfaces on the head.



Proportions

Eight seems to be a magic number. When you divide the head into eight parts, you will find a number of makers of the head. Each head is different, so those markers can be a bit different, too. My drawing style isn't that realistic, so I always play around with proportions. But still, dividing the head into eight parts can be useful, because it gives you a base to start from.



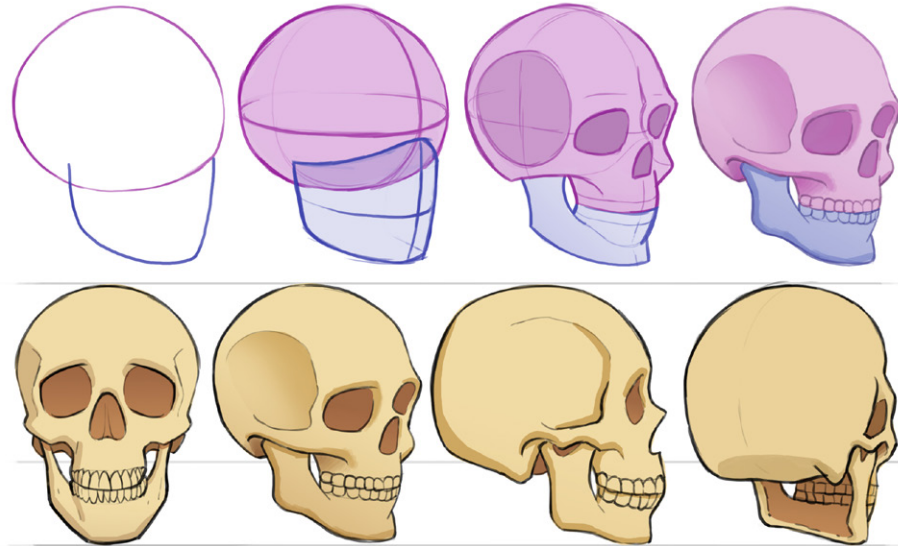
STUDY TIPS

First draw both a round and an angular head. And after that, play around with the space between the lines. Try subtle changes and more extreme ones and see what happens.

Typically, the female head is round and has soft edges, whereas the male head is more angular and bones and muscles stand out more in a male face. When I draw more cartoony characters, I push this more. This doesn't mean a woman can't have an angular face or that a male can't have a round face. But it's important to be aware of this, so you know how to use this when designing your characters. Strong characters often have really angular shapes and friendly ones tend to be more rounded.

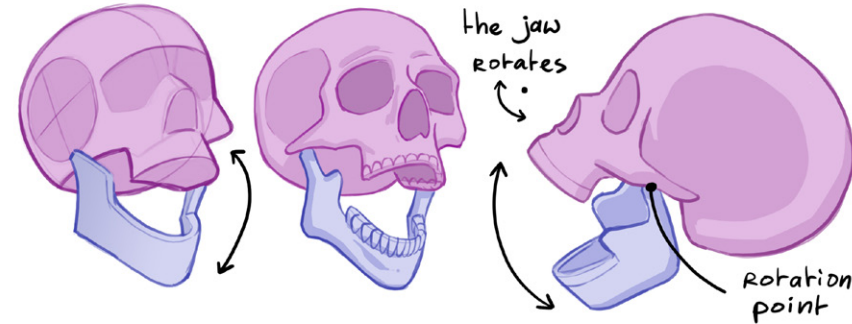
THE SKULL

Understanding the skull is very important for a good understanding of how to draw the head. On some parts of our head we can even feel parts of our skull. Like the edge under your eye or around the jaw. It's also good to know how the jaw opens. When it opens, it moves like an arch, rather than simply dropping down.

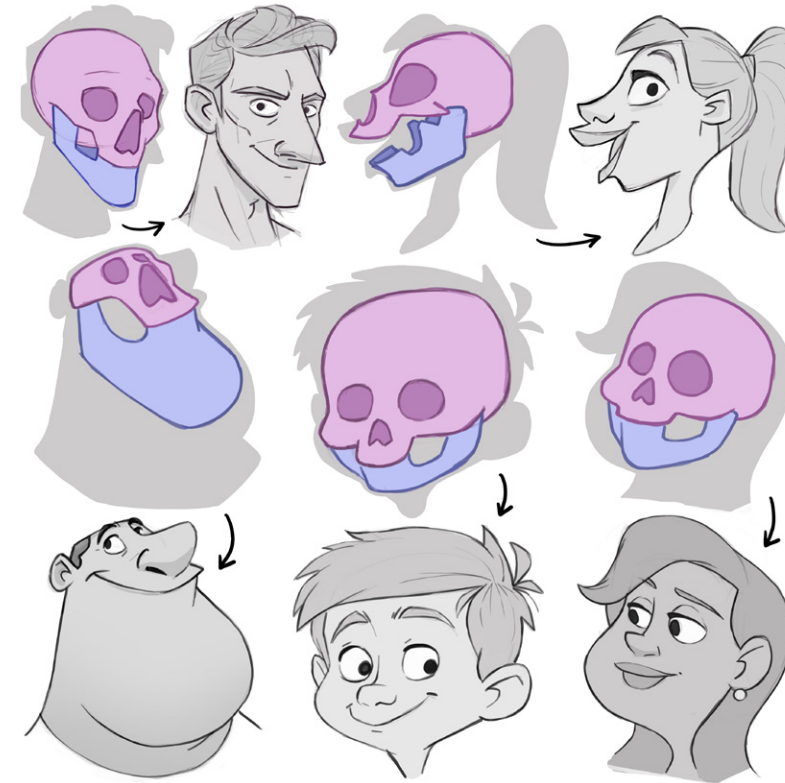


STUDY TIPS

Practice drawing the skull from different angles and use the steps I showed on the top of the image.

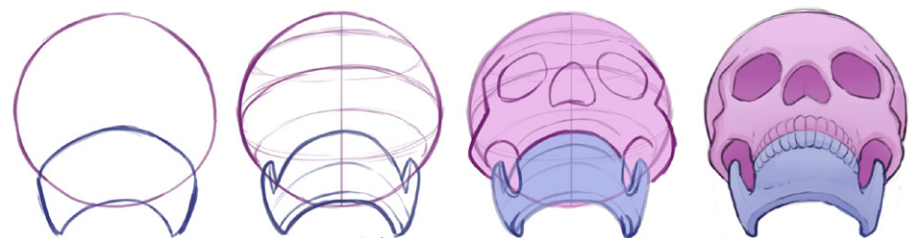


In cartoon characters, the skull looks different in every character. Some characters have a giant cranium and other characters have an extremely big jaw.

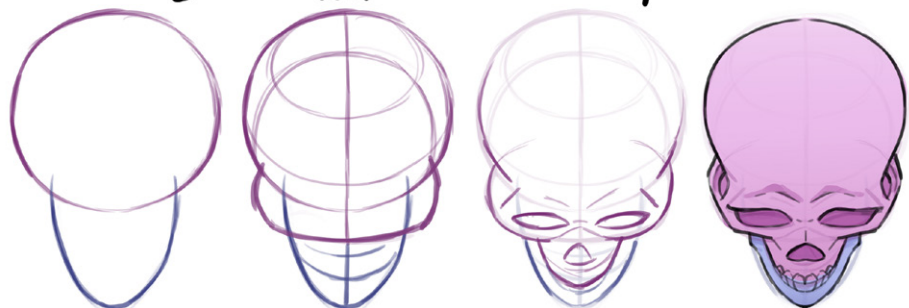


STUDY TIPS

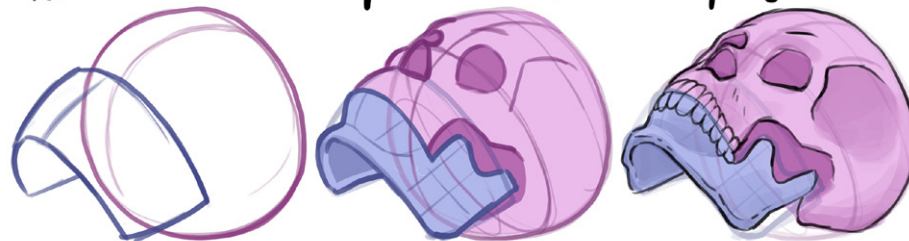
Try to draw the skulls of some of your own characters. Is it different from a realistic skull?



start with basic shapes



Rotate basic shapes & build on top of that

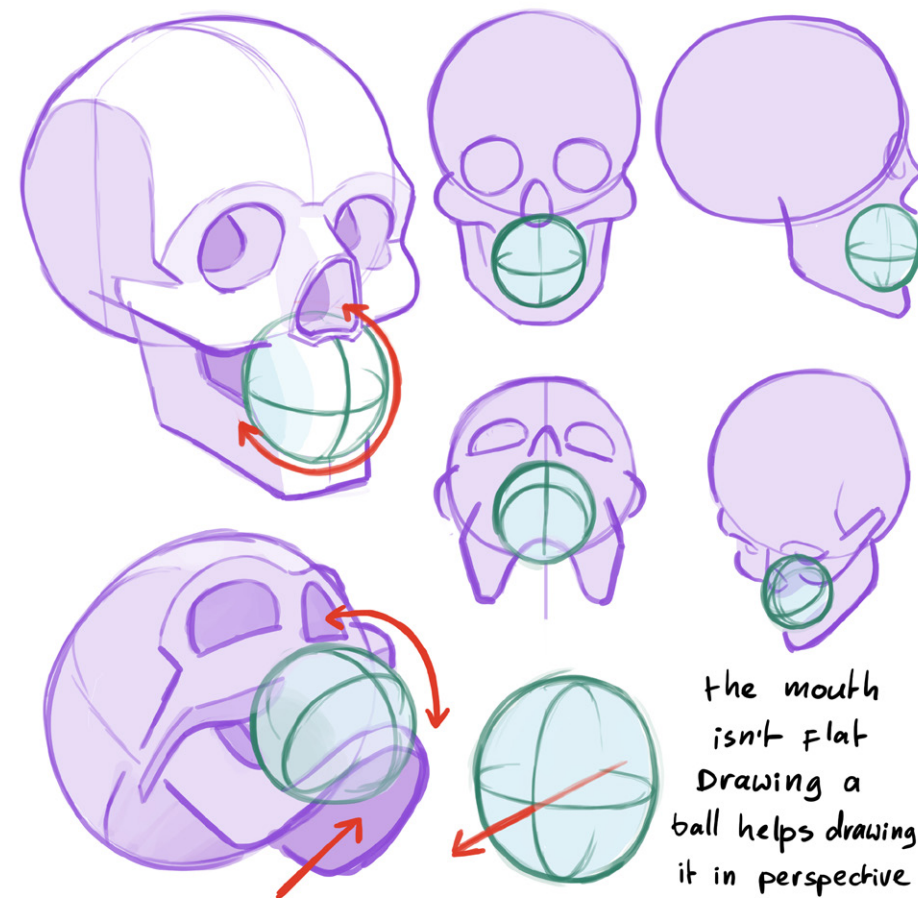


Here I show different angles of the skull. I'm using basic shapes again to make it easier to rotate.

The part of the mouth and teeth isn't flat. It can help to draw these parts as a ball in the skull. This also makes it easier to draw that part of the skull from different angles. Later, I'll show how to draw the mouth on top of it.

STUDY TIPS

Draw the skull from different angles, using a ball shape where the mouth goes. This will help you later with drawing the mouth from different angles.



the mouth isn't flat
Drawing a ball helps drawing it in perspective

FACIAL DETAILS

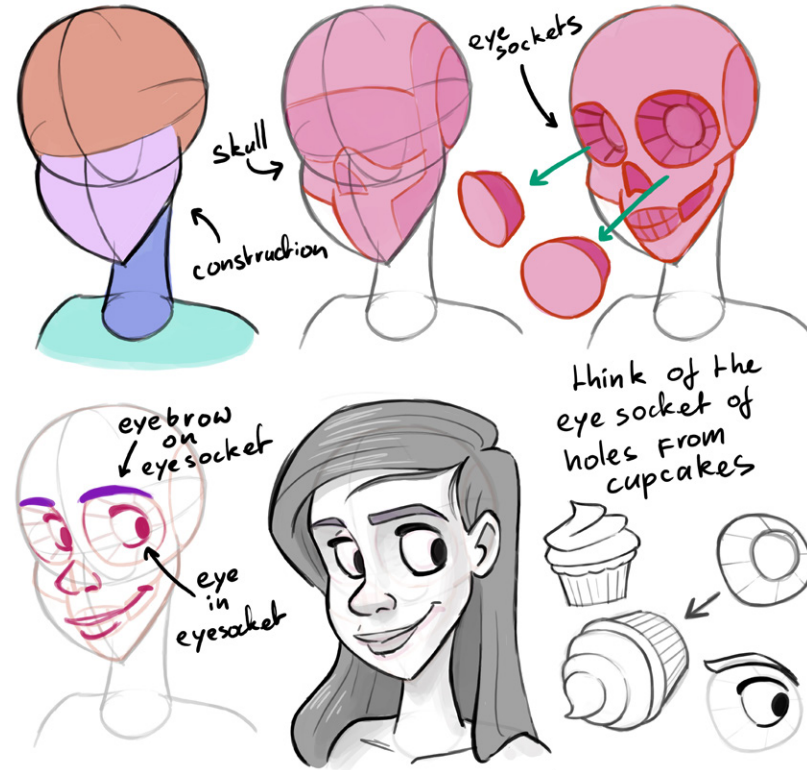
THE EYES, THE NOSE, THE MOUTH
AND THE EARS

Now that you have a solid construction for your character, the next step is to add facial details so the character can express himself. On the next pages, I'll address each element more in-depth.

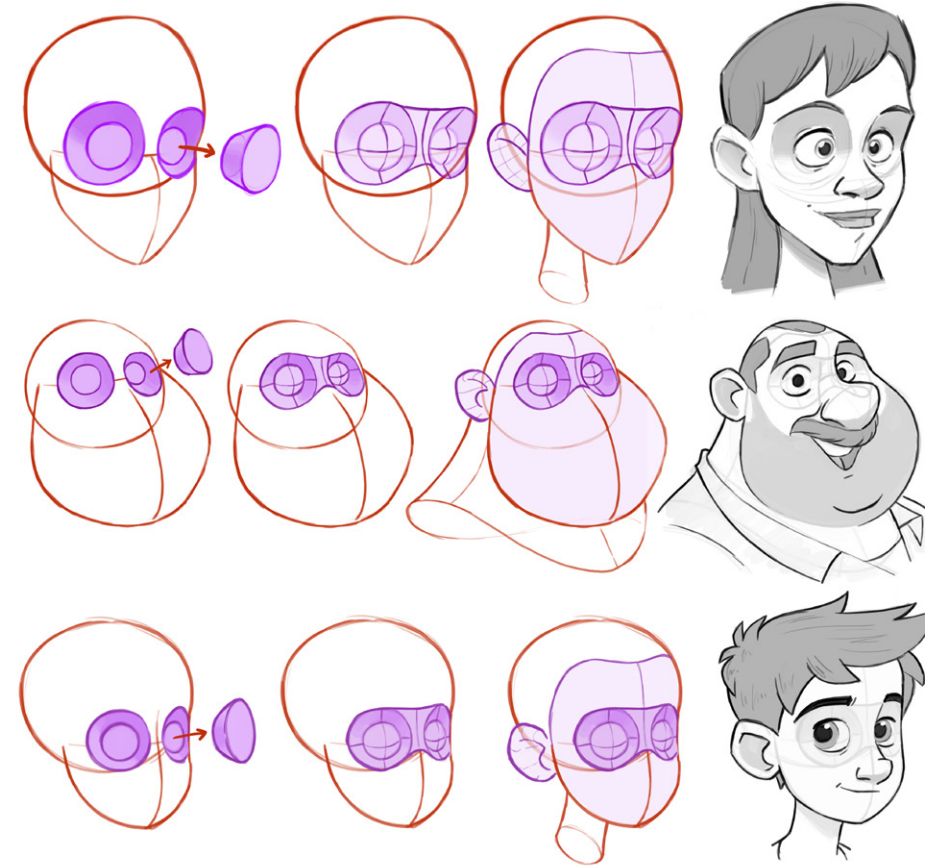
EYES

Cupcakes

As for drawing eyes, I like to think of them as cupcakes that I take from the head. Eyes are located in a cavity in the skull called the orbit/eye socket. Eyes are protected by bones around it. You can see this clearly, if you look at an actual skull.



adding masker to add the eyes on the right place

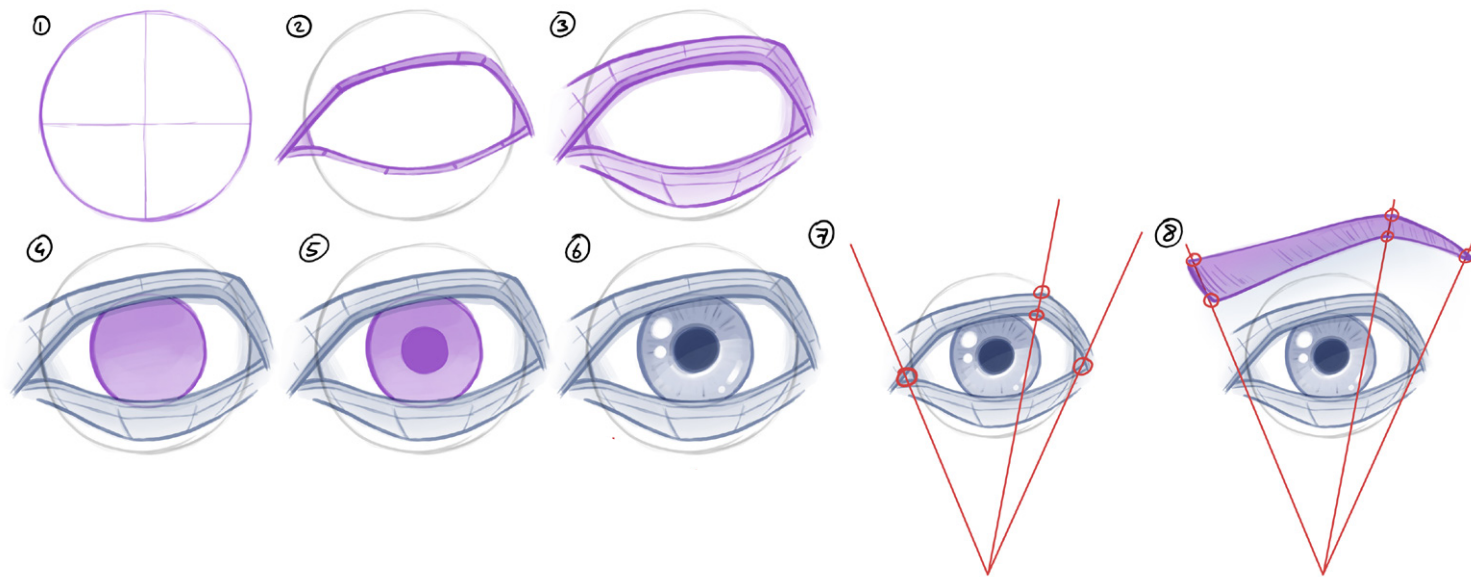


The superhero technique

Drawing a mask around the eyes helps you determine the right placement for the eyes in the head, when seen in perspective. Look for the lines on top of the mask that give it that 3D shape. Try to understand how everything wraps around it.

STUDY TIPS

Draw a character with a mask around the eyes. Make sure you use the steps I'm showing here, take two cupcake shapes from the head to place the eyes properly in the head.



Drawing the eye from the front

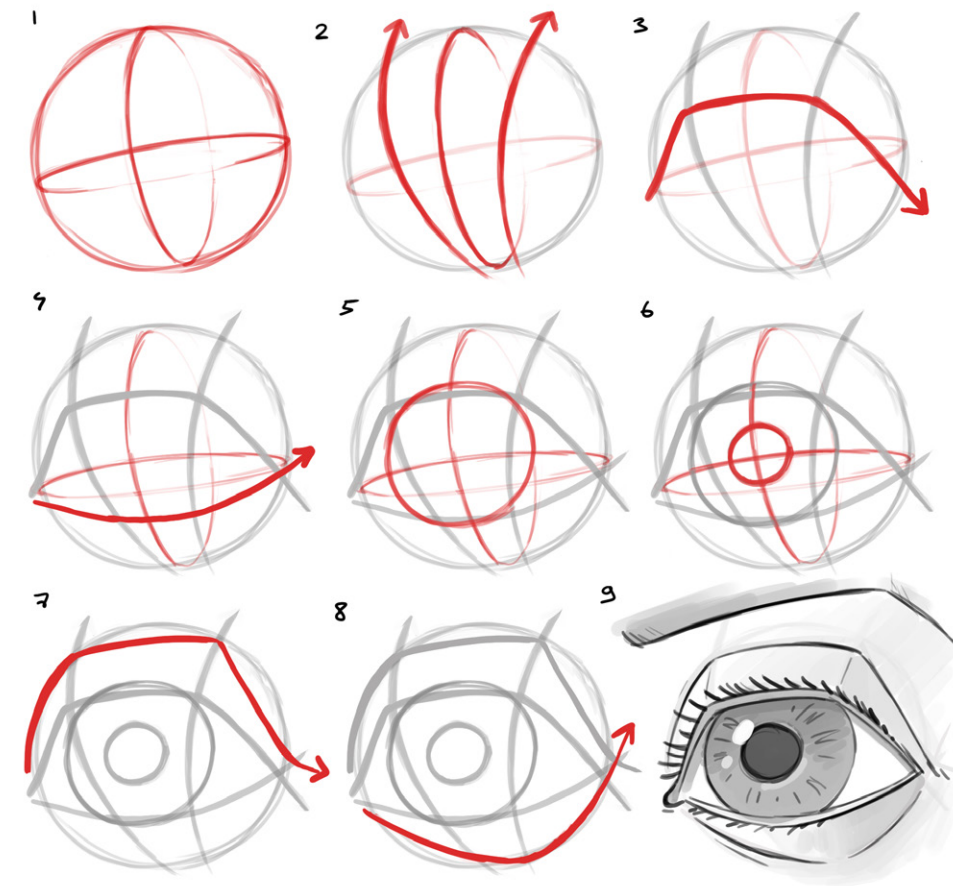
It's perfect to learn how to draw the eye using these steps. These are basically the same steps you would take if you would draw it from a different angle.

Construction

There are different ways to draw the eyes. The simplest way to draw them is to start with a ball and draw the eyelids (the upper and lower one) on top of it. When you draw the eyelids on top, try to think how those eyelids follow the shape of the eyeball.

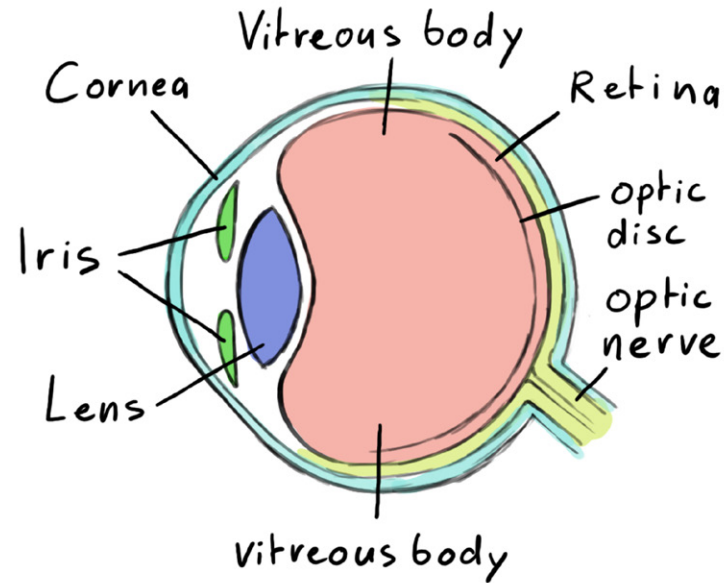
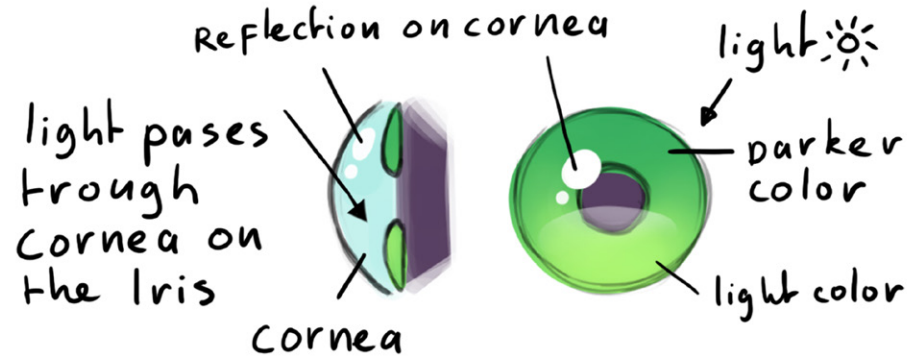
STUDY TIPS

Use your sketchbook and draw a couple of eyes until you can draw it from memory. Once you know how to do that, you could try drawing different types of eyes.

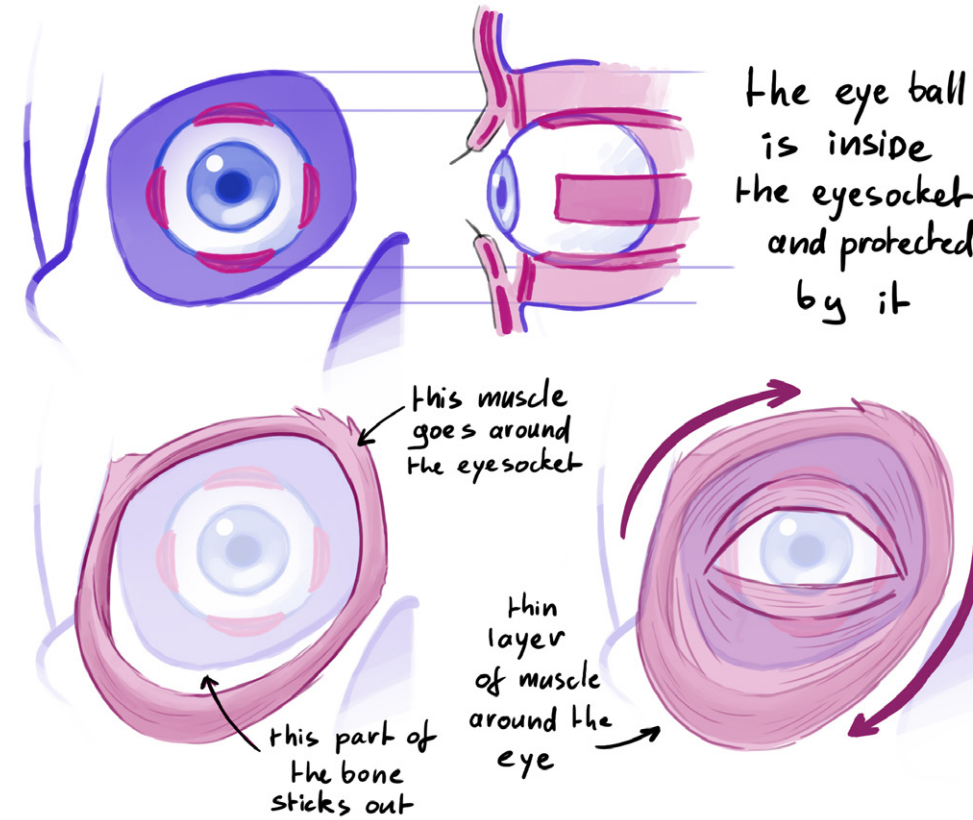


Eye details

If you would dissect the eye, you'll see it is a complex organ. For drawing, it's important to understand a bit of the eye's anatomy. It's especially important to understand how the light passes the cornea and reflects on the iris. For example: when the light comes from above, the bottom of the iris is lighter.



The muscles & eyesocket around the eye



Invisible on the outside, the eyeball has multiple muscles attached to it. They control the movement of the eye and keep the eyeball in place. Around the eye socket, there is a thin layer of muscles, in some places you can't even feel it. Carefully feel the skin around your eye to see if you can feel the muscles and bone.

In these three examples I show how you can draw the eye from different perspectives. Notice how little of the actual eyeball you are able to see. The biggest part is inside the head. Also notice how the eyelids wrap around the curvature of the eyeball.

① start with circle



① you only see a fraction of the eye ball



① eyelids follow the eyeball



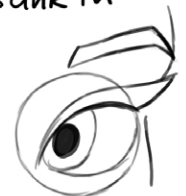
② sketch details



② eye brow is in front



② eye ball is sunk in



③ add final lines



③ notice the shading of the iris

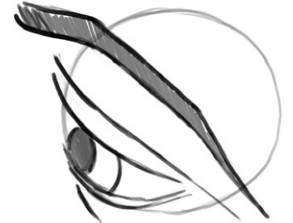
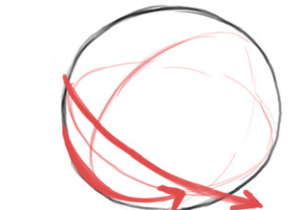
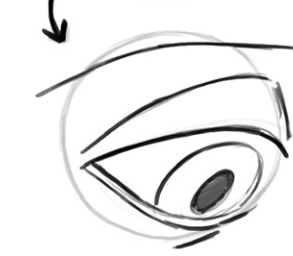
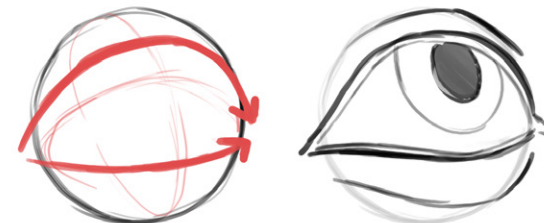
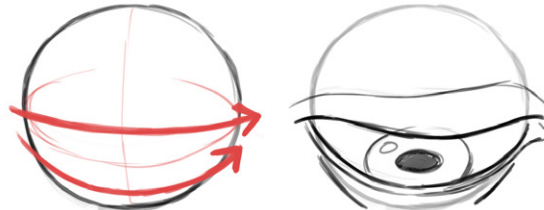
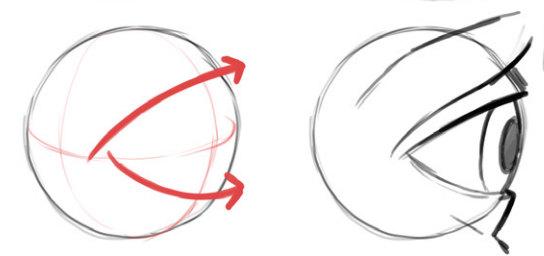
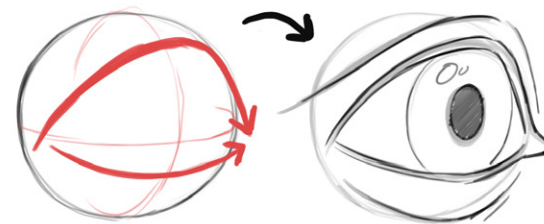


③ notice the side of the head



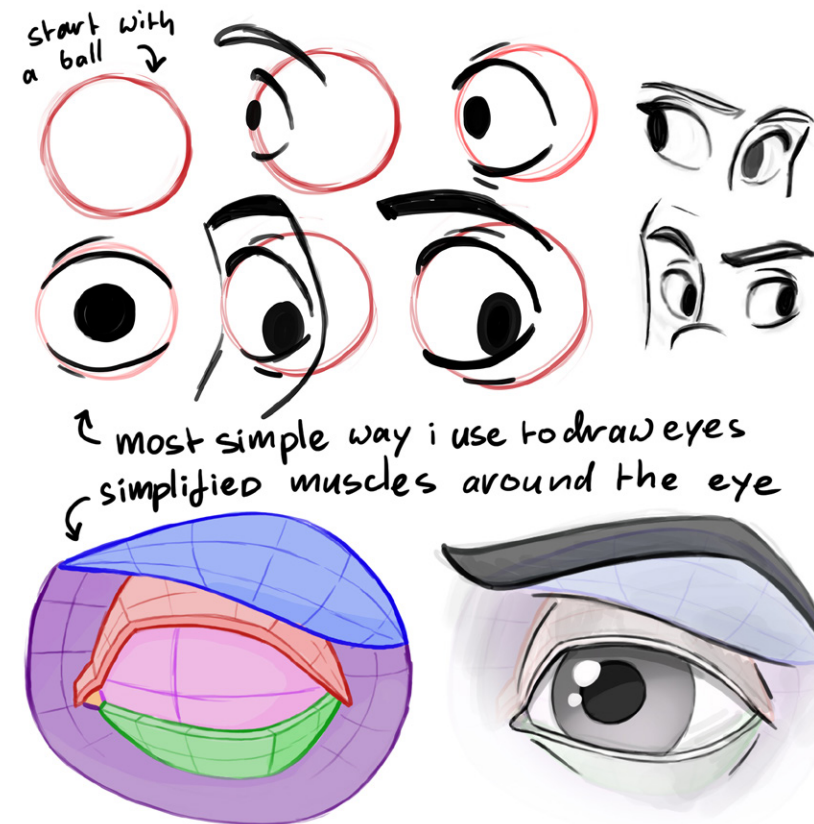
STUDY TIPS

Now try drawing the eye from different angles. Always start with a ball. If you have a hard time with this, you can use a mirror or look up pictures online. You can also ask someone else to model for you and take pictures from that person's eye from different angles.



Wrap it!

Of course, most of us don't have just one eye, but two! And they are mirrored. Because they are located inside our skull (think of the cupcake shape I mentioned earlier) they are sometimes covered by our nose. Another thing to consider is that the face isn't flat, it's actually wrapped around the skull (refer to image).



Around the eye, there are many tiny muscles. I don't know them all by heart but I do use this breakdown I'm showing here. It can be useful to look up some anatomy illustrations and try to break down the muscles in more basic shapes.

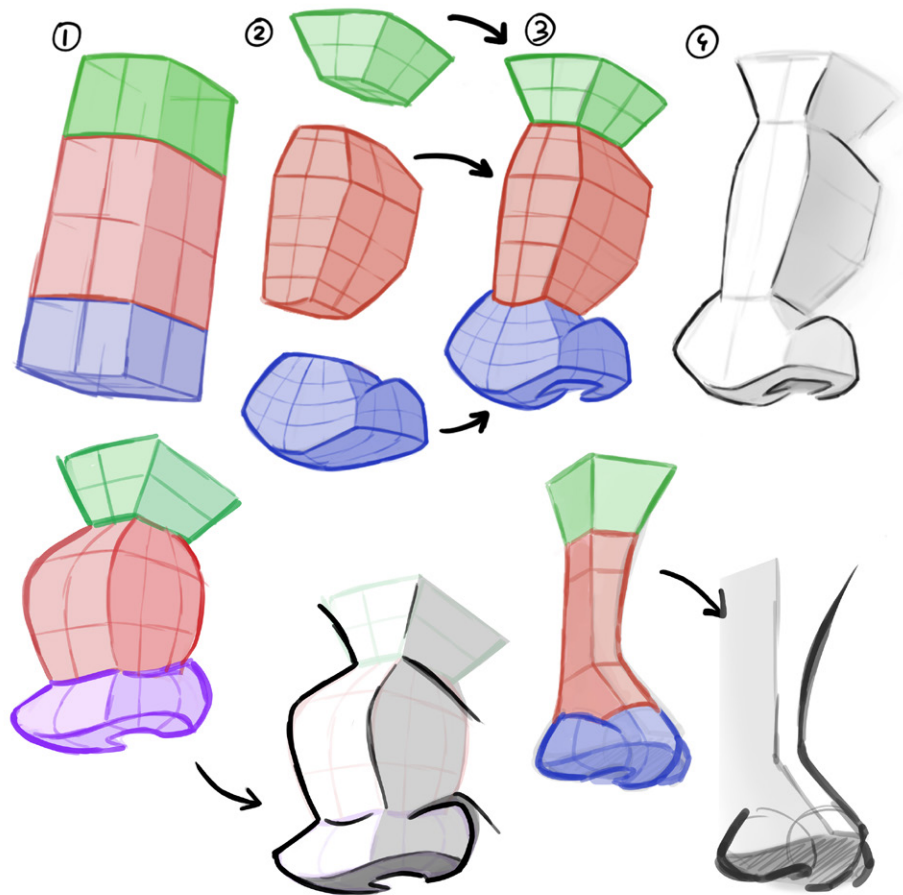
STUDY TIPS

Fill a whole sketchbook page with different pairs of eyes and always start with drawing a ball. Draw a couple of very simple ones, as well as more realistic ones.

NOSE

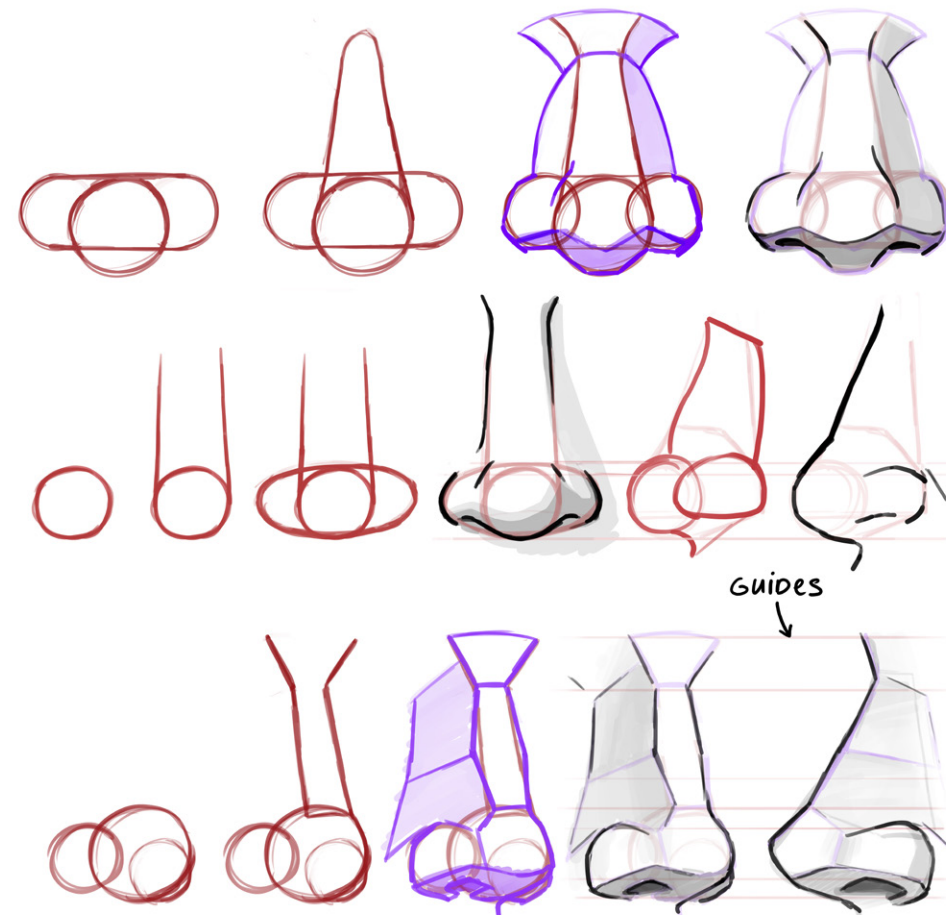
You can draw the nose in many different ways. I try to think of a nose as an object consisting of three parts, as you can see in the example above. I can play around with green, red and blue shapes to draw a wide variety of noses. On the next page, I will address the diamond or triangle method I use to draw the nose in difficult angles.

Here is a collection of noses. You can draw the nose in endless different ways, I would advise to try out different types of construction so you can discover what suits your character best.



Simplify it

A few different ways of drawing the nose. The advantage of starting with spheres is that it's easy to rotate around in 3D, so you can easily use these steps if you want to depict a different angle.

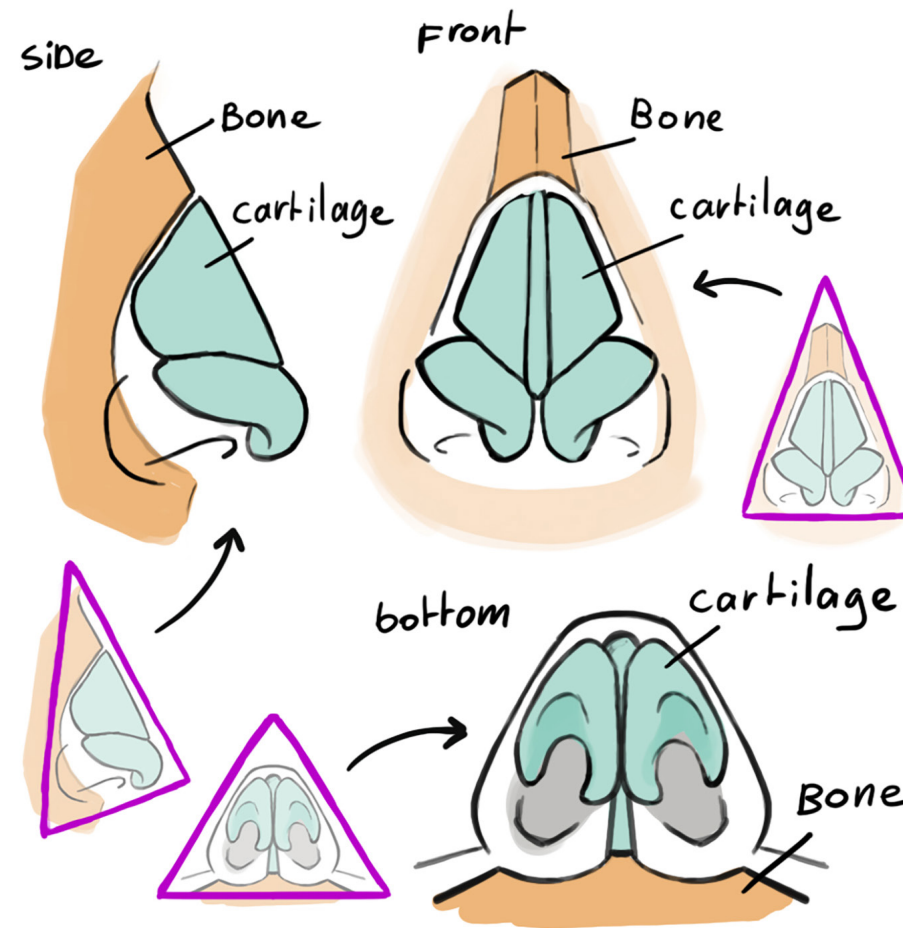
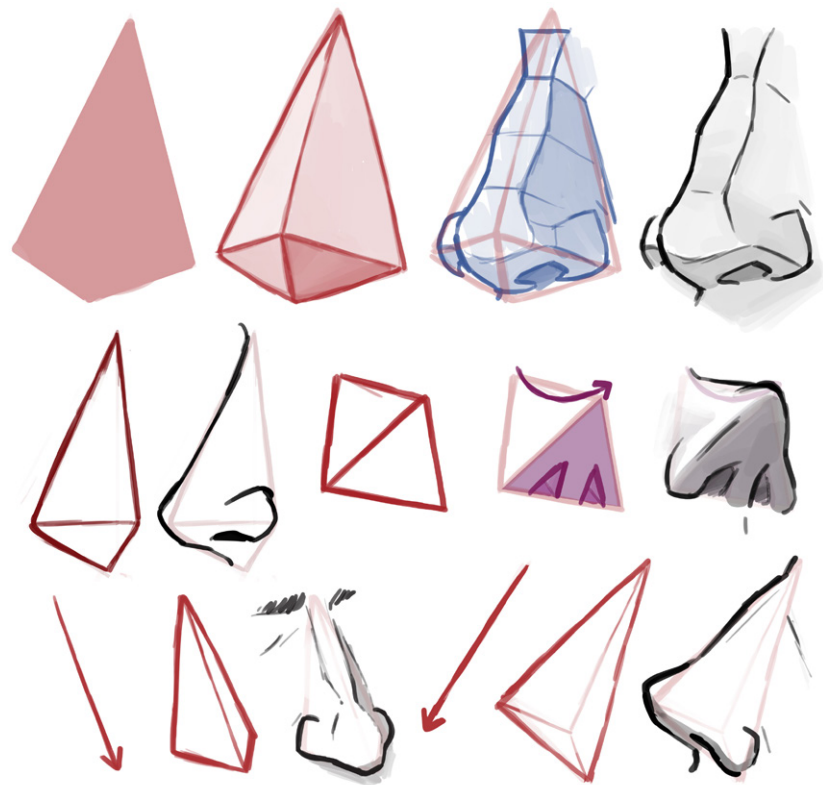


Prism

Here, I use the prism shape to draw the nose in difficult angles. Again, this shows why starting off with using geometric shapes makes drawing characters way easier. Work from big shapes to small details.

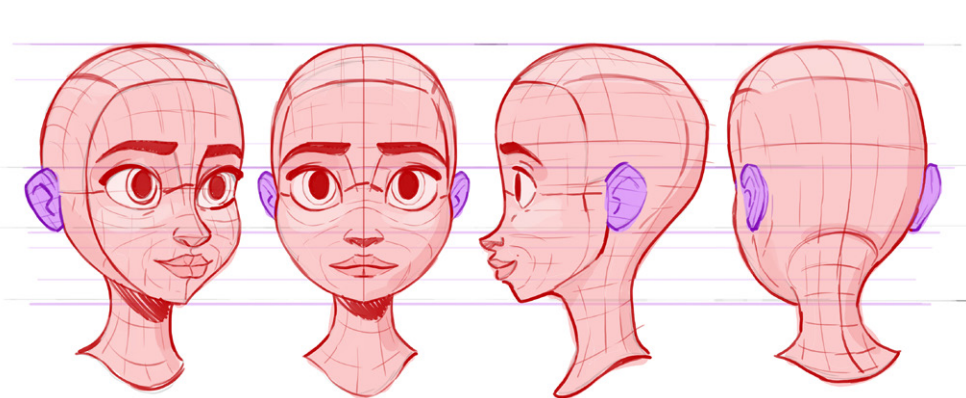
STUDY TIPS

Draw the nose from different angles using this prism shape. A great way to do that is to take pictures of your own nose or someone else's and start drawing those crazy angles.



Triangles

The nose consists of a lot of cartilage. That's soft bone and makes our nose flexible but still quite solid. If you draw a triangle around these nose drawings from different perspectives, you can clearly see there's a triangle shape hidden in each one of them.

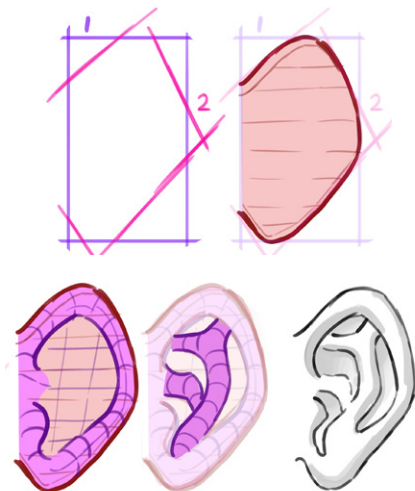
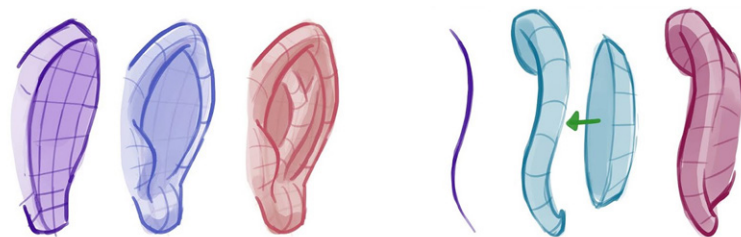


EARS

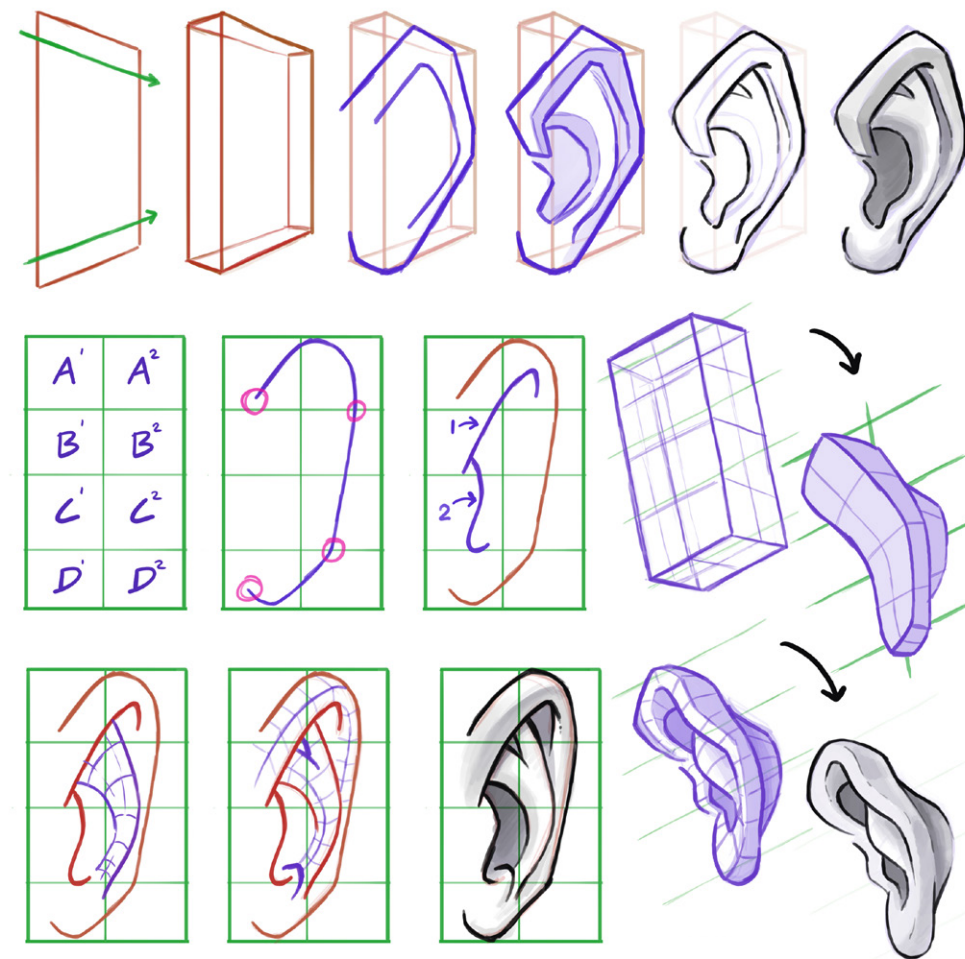
As for the placement of the ears: you can align them with the eyes and place them where the jaws start.

To draw ears, start with a big diamond-like shape. The next step is to give it rounded edges and after that, you can add the inner shapes of the ear.

For drawing the back of the ear, you can start with an S-line and give that volume.



If you can draw the ear from a flat perspective in a box, you can draw it from any angle in a box. The only thing you need to know is how to draw a box in perspective and in different angles. In this example, I show a couple of markers to help you remember how to draw the ear.

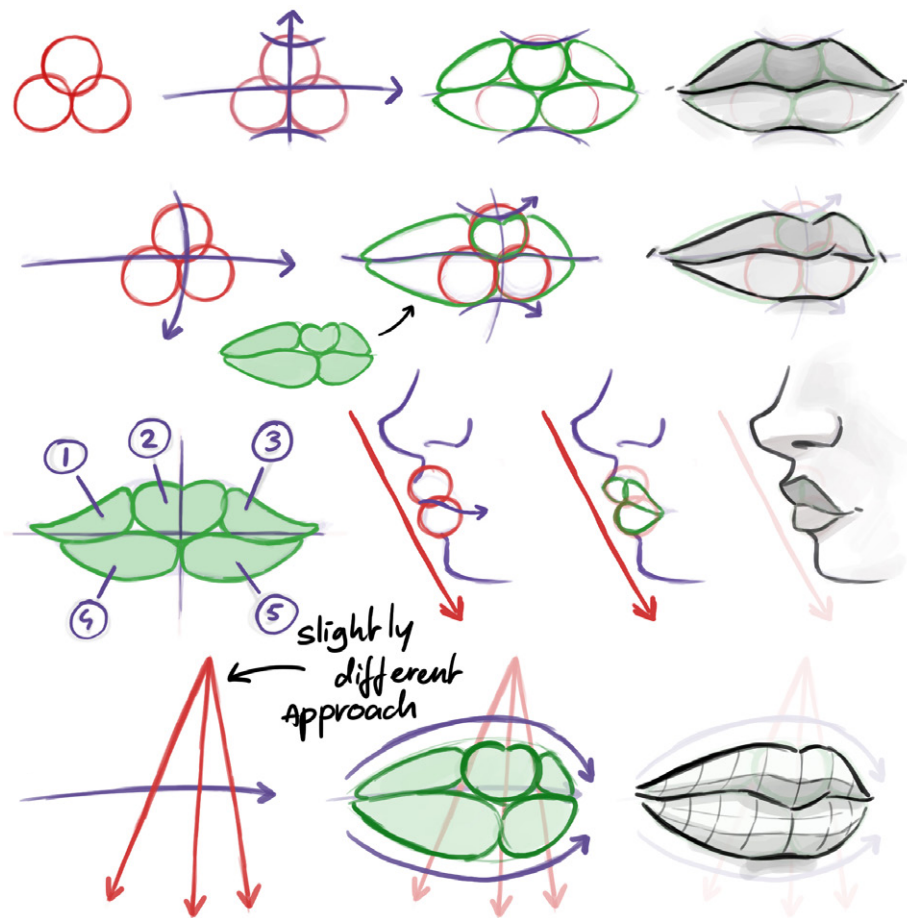


THE MOUTH

Look in the mirror, your lips have volume! If you want to draw realistic and voluminous lips, you can break them down into 5 shapes: 3 in the upper lip and 2 in the lower lip.

Construction

To construct the lips, start with drawing a line that wraps around the head. Then build up the lips on top of that. This will help you to make it easier to draw a mouth with lips.



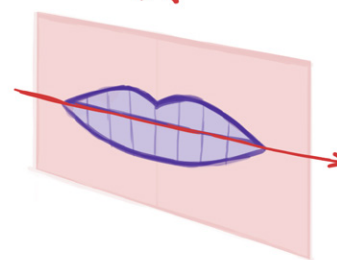
Wrap it!

Keep in mind that the mouth is following the shape of the head: it's wrapped around it. Do you remember the skull drawing in which the mouth follows a ball shape? In this example, I show how to draw the mouth around a ball and what kind of effect this has.

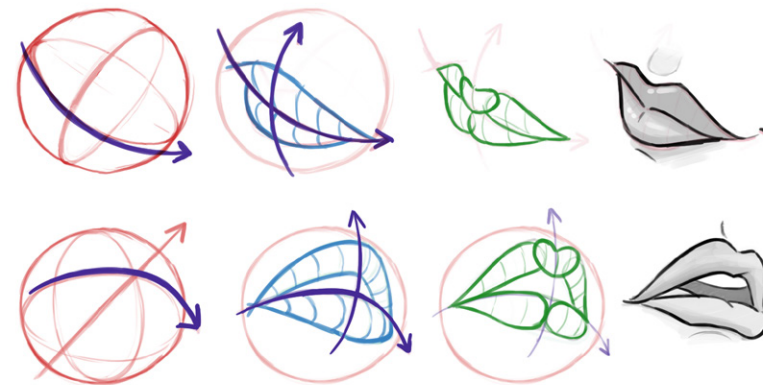
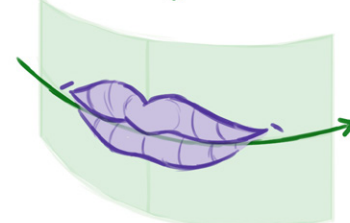
STUDY TIPS

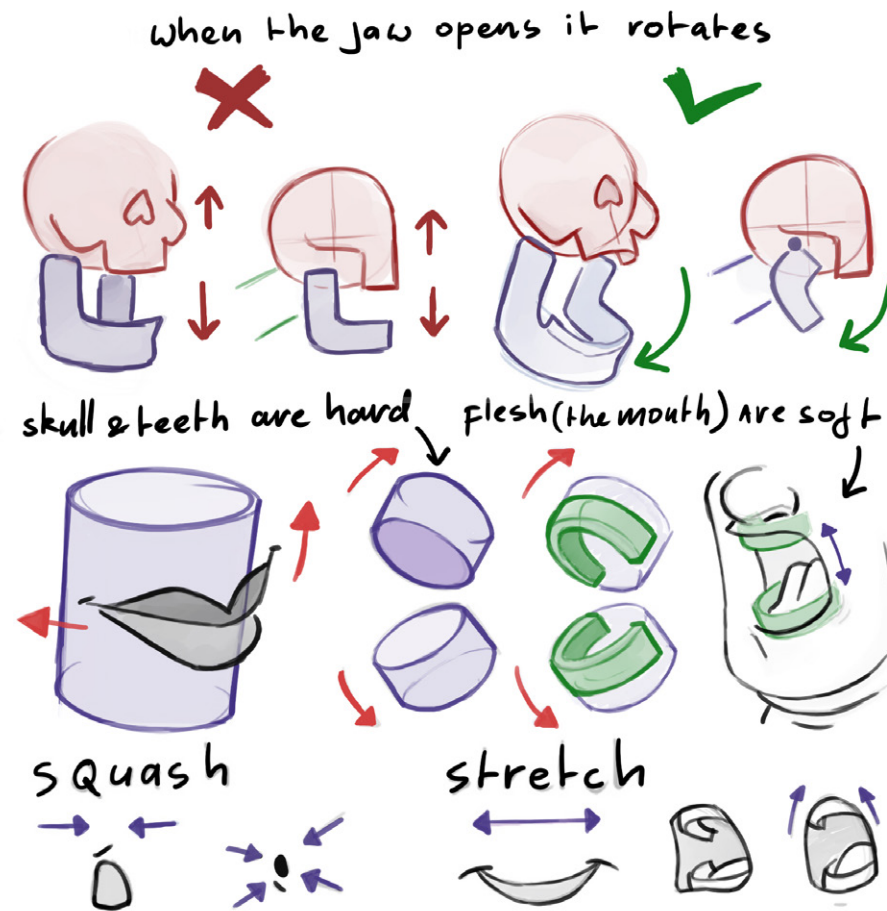
First learn how to draw the mouth from a flat frontal perspective and after that, start drawing it in different angles. Start with simple angles and challenge yourself to go a little bit further each time.

Don't draw the mouth flat



Draw it around the Face



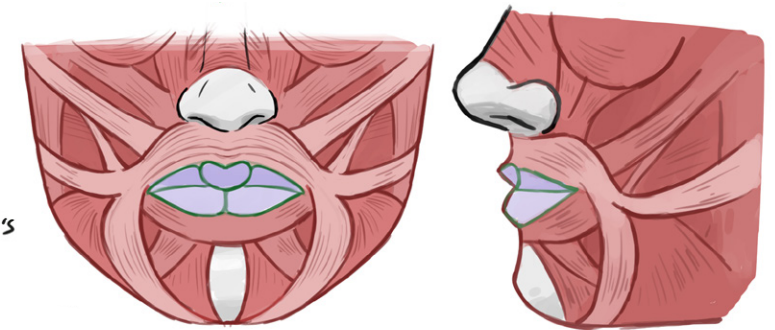
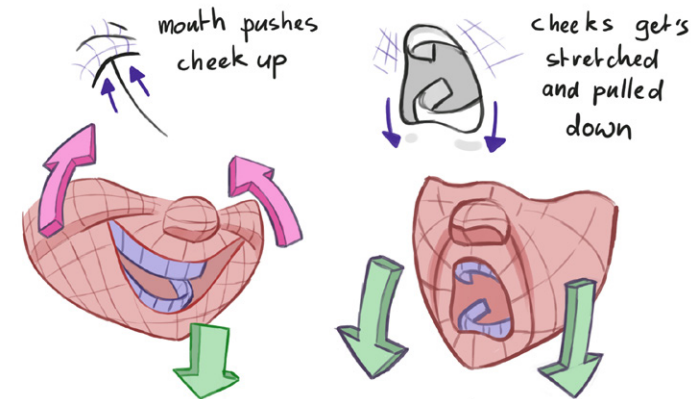


The jaws

Here, I show how the mouth opens and closes. It's good to realize that the flesh of the mouth is flexible but the teeth are not. Also, consider that the jaw rotates when it opens, it doesn't simply drop down.

Squash and stretch

Remember that there is a lot of flesh around the mouth. For example, your cheeks squash and stretch when you yell or laugh.



You don't have to perfectly understand how the muscles work. You don't have to learn all the muscles by heart either. Having a bit of understanding is enough (at least for me it is). But it's still good to at least study it roughly, just enough that you have seen it and are able to recognize it. So once you're stuck with a drawing, you can look up the proper reference and understand how it works.

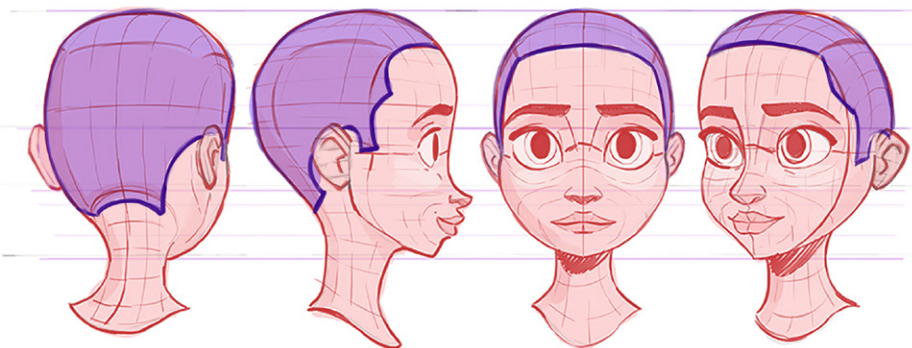
STUDY TIPS

Try drawing different types of mouths. Look up some photos (or even better: use a mirror) for different expressions and see what it does to the mouth and the skin around it.

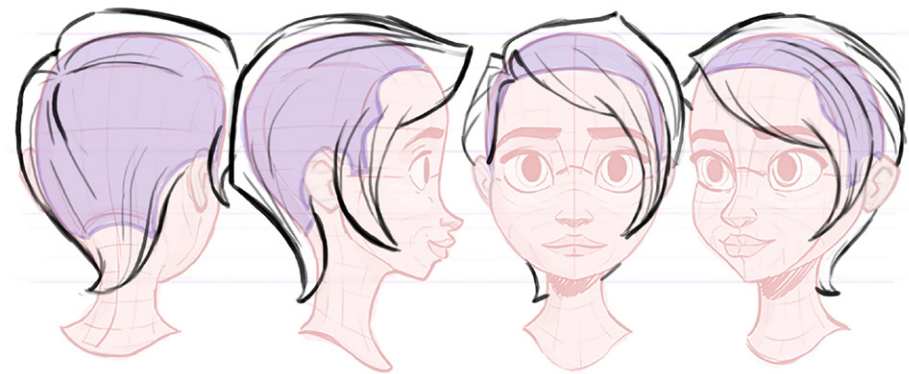
HAIR

Knowing where the hairline is located is important. It can look strange when it's too low or too high. At the same time, you can play around with this and decide what works and what doesn't. In this example I'm showing the hairline from different angles.

The hairline

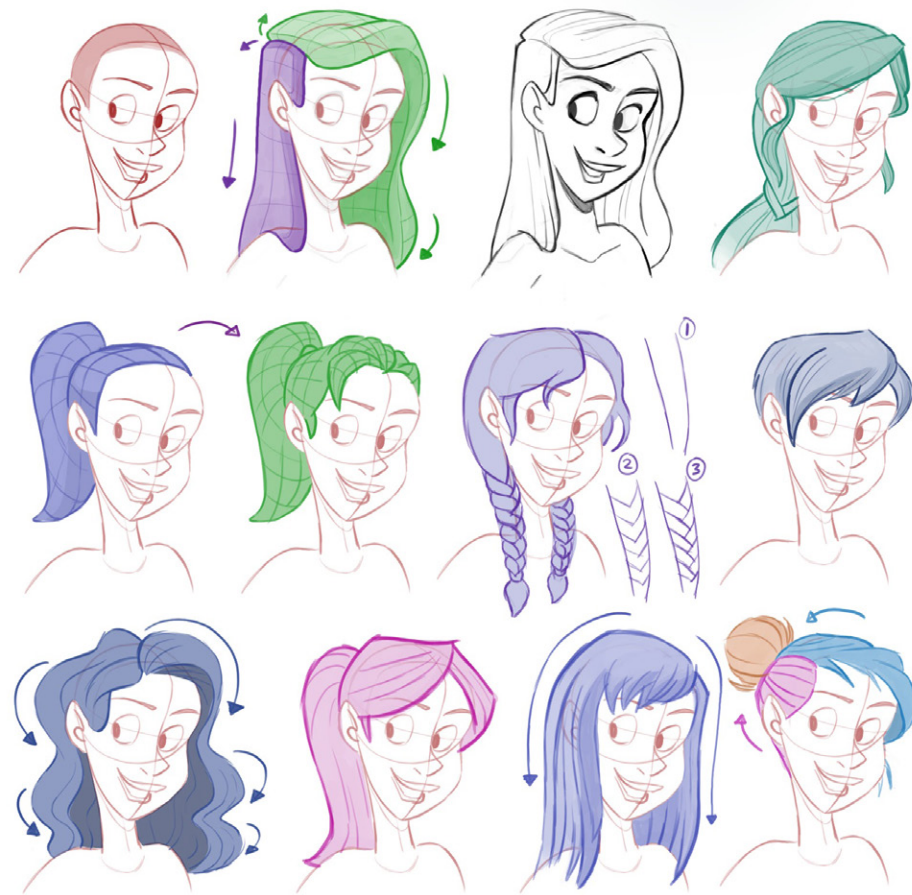


Leave some space between the skull & hair



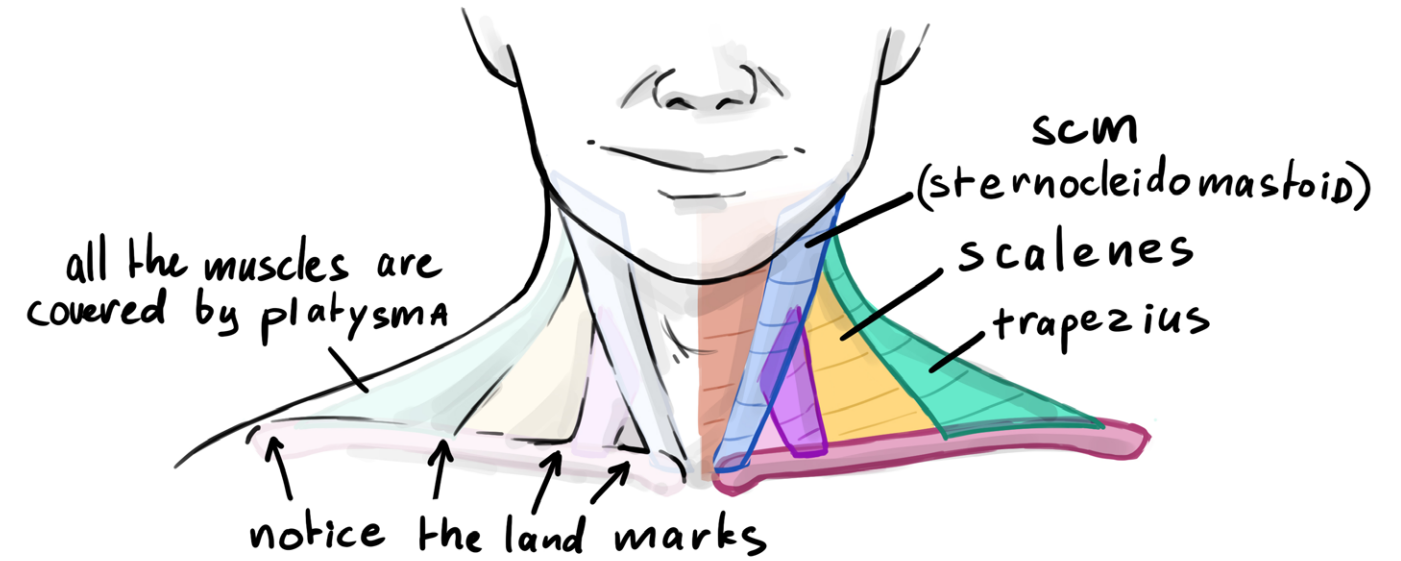
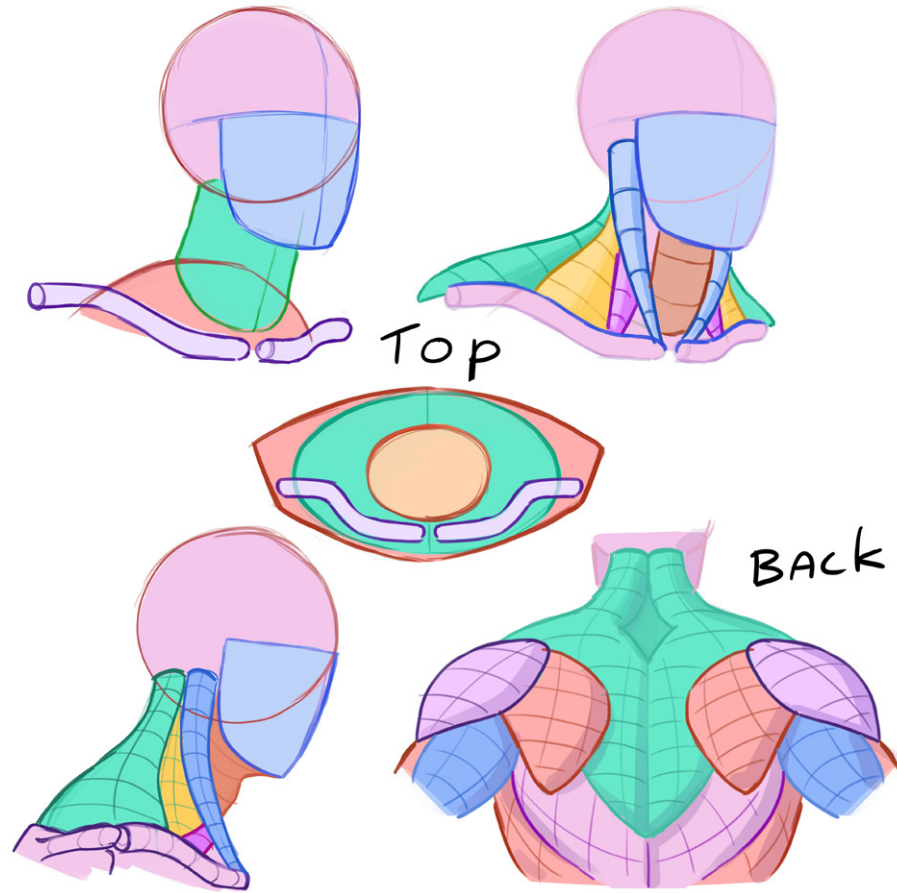
When you draw hair, make sure you draw it on top of the skull. Hair always has some volume. It grows from the skull and gets pulled down by gravity.

In these examples you can see that I break the hair down into separate big shapes. So, always start with big shapes and break them down into smaller shapes. Hair is not a static object, it flows. This also means that hair follows the movement of the character when it moves.



THE NECK

Attached to the head, there is – of course – the neck. The neck has a lot of muscles, many more than I show here. However, in the example I've grouped the muscles and made them simpler. You can look up a medical image of the neck to see all individual muscles. For these purposes, these images would be way too complex to use when drawing the neck, that's why I've simplified it.



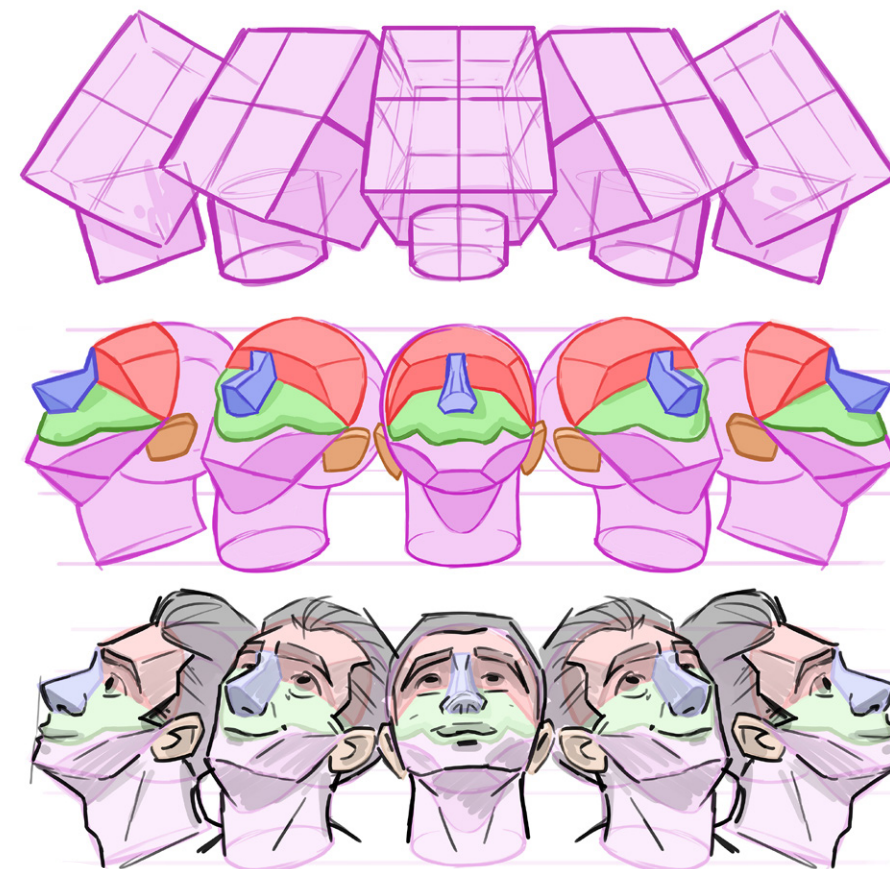
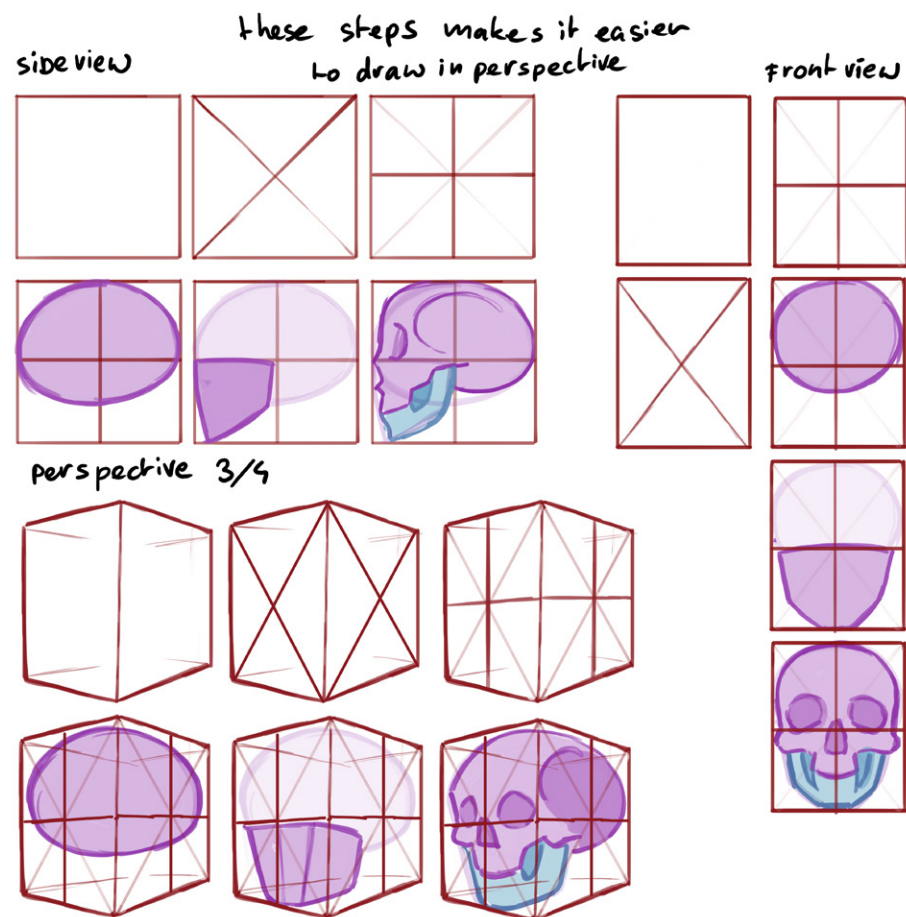
DRAWING THE HEAD IN ANGLES

Inside the box

When you know how to draw a skull in a box from a flat side or frontal perspective, you know how to draw it in a different angle. I'm trying to show this with the example image. When you draw the box in perspective, you can add markers to the front and side of the box. Those markers will help you to create the skull in perspective.

STUDY TIPS

First, practice drawing a 2D head from the front and the side. Once you know how to do that, you can try drawing a head in a box like I did in the example. Simply follow the steps.



In this example I show you the head in different angles and how I apply the box method. The first step is drawing the box. In that box I start drawing the basic shapes and from there, I work towards the final sketch.

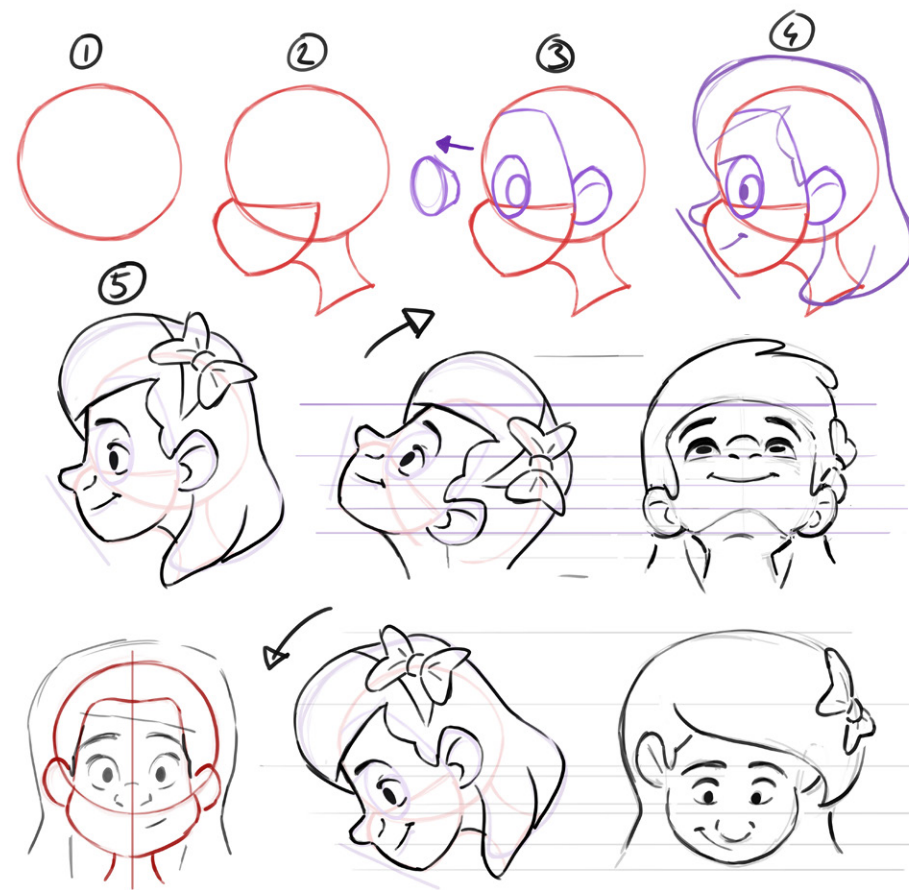
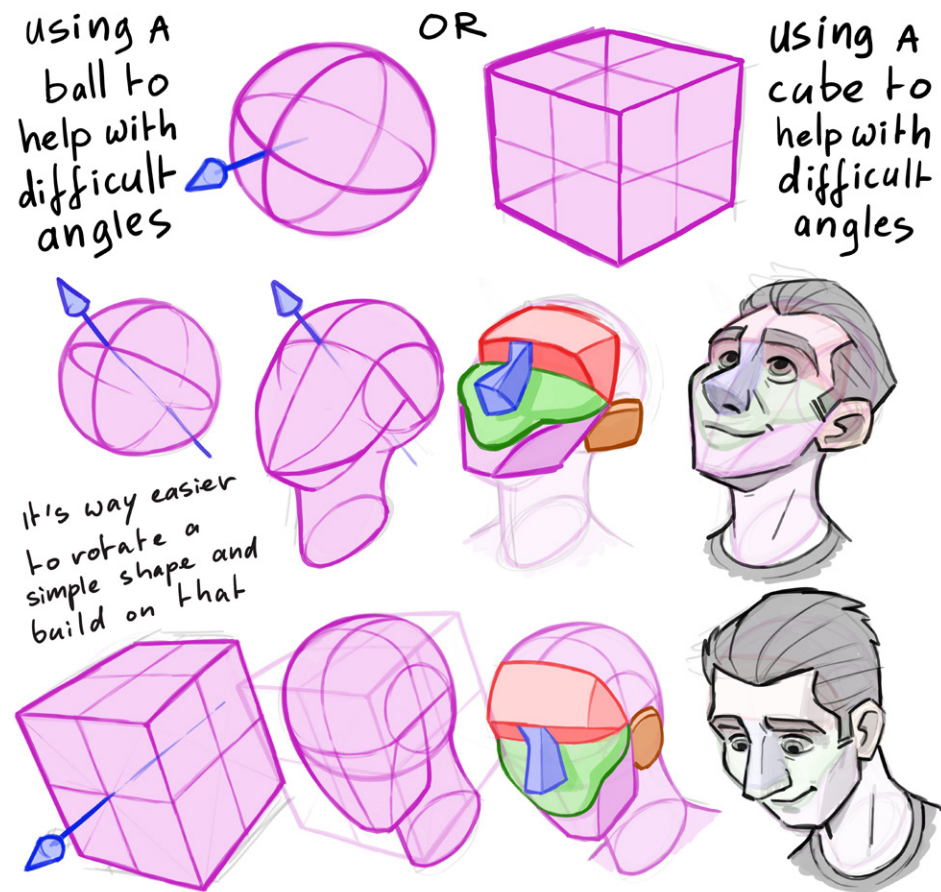
It basically comes down to combining the techniques that I have already mentioned in in this e-book and the method of drawing a head in a box.

STUDY TIPS

First, try to draw the head in the angle I showed in the example on this page, so looking up. Once you've done that, try to apply this method yourself by drawing a head looking down. You could use the drawings from the first pages of this book.

You can start with a cube like I've done. Or you could start with a sphere. How you start doesn't matter that much, as long as it takes you where you want to go and isn't too complicated.

The advantage of using a cube is that without any perspective guides you can still see where it is headed because it has 6 clear planes. However, with a circle or sphere you already have a solid base to build the skull/head upon.

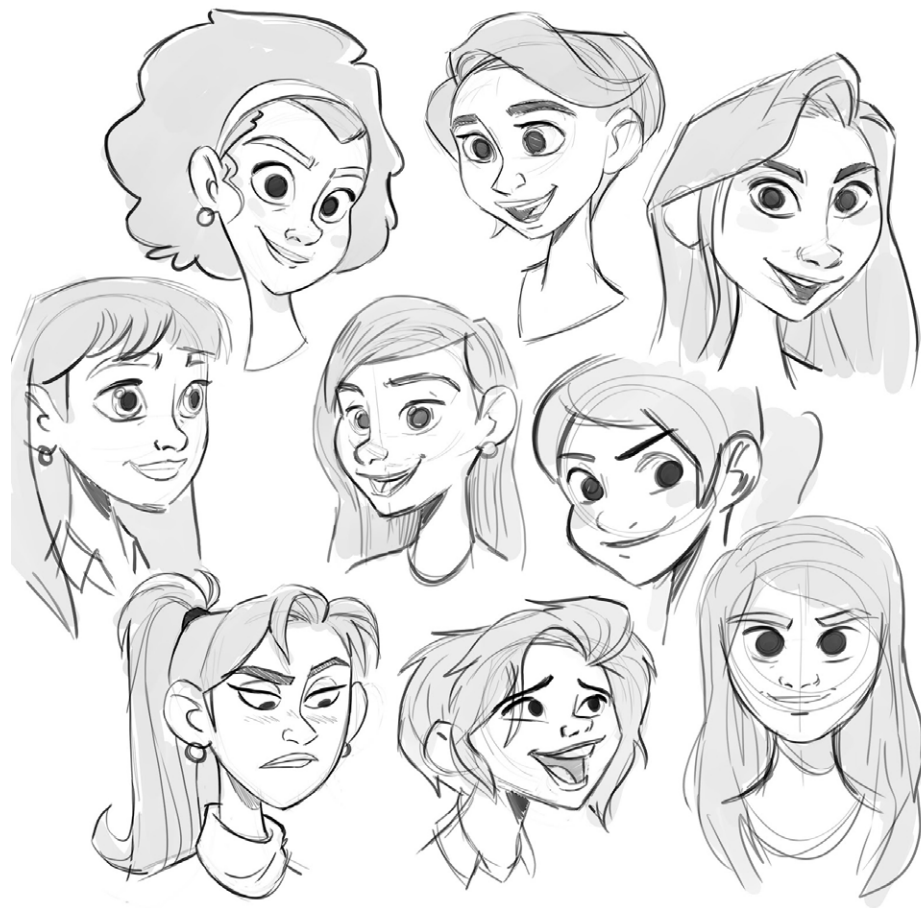


Drawing heads from different angles can be difficult. What helps me, is to draw it from the side first. With a little help from perspective lines, you will learn to understand what it looks like from another angle.

STUDY TIPS

Try this method yourself. Maybe with a character you came up with yourself or use one of the heads I drew for this book. Start with a frontal and side view. Then, you could try to draw a $\frac{3}{4}$ view (in which you see a part of the front and a part of the side of the head).

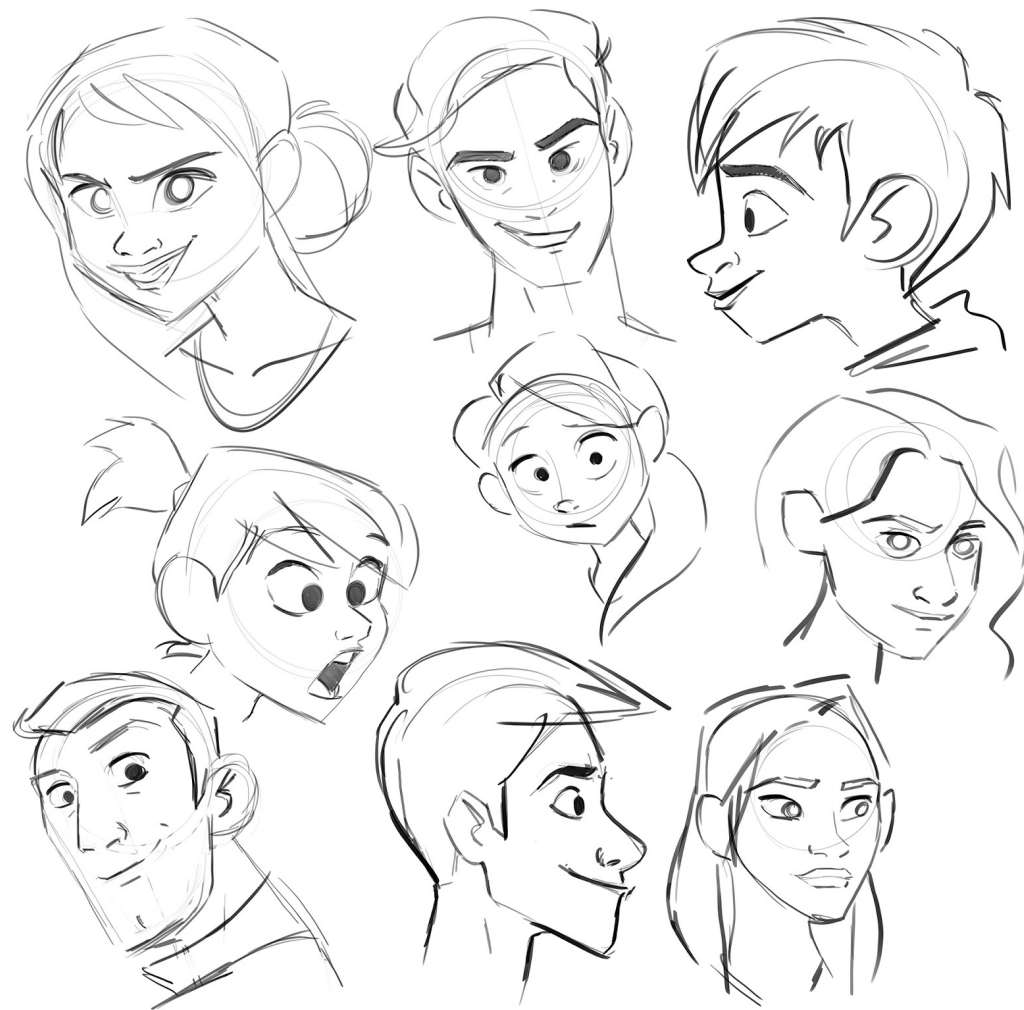
EXTRA STUDY MATERIAL



Here are some of my head designs. I drew all of these characters with the same techniques I've mentioned earlier in this book. It's not that I draw the skull and all the guides every time, but I do keep them in mind when drawing heads. And that is the goal - I think- you could try to achieve.



First, train and learn all those steps with skull, shapes and guides. At one point it will click, don't stop when you are frustrated by this because that is part of the learning process. You could start by studying all these heads and copy them. Don't just simply copy them but try to break them down with the steps and guides I've shown earlier in this book.



Here is another example of drawing a head step by step.



CONCLUSION
& THANK YOU

THAT'S IT!

Thanks for reading the book. I hope it helped and you to have a better understanding of how to use and draw anatomy. All of these things definitely helped me and I'm still learning.

The thing with drawing is that you are never done learning. Being an artist is a bit like being a gardener. You always have to water your garden or it will become dry and eventually dies. So always keep learning and try to find

water for your garden. With this, I mean it's important to always keep studying and learning.

If you have any questions or want to show me some of your studies, drop me a message on my Instagram!

Best,
Mitch Leeuwe

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