

2. How important are vanishing lines and vanishing dots in a perspective drawing?

3. How will you identify the center of a square in perspective?

Self-Evaluation

Evaluate yourself against the skills below. Check the option that you think is most appropriate to you.

Skills	Weak	Good	Excellent
Draw one-point and two-point perspective drawing			
Understand structuring in a drawing			
Identify center and vanishing point from a subject			

Lesson 10: Drawing Concepts: Light and Shading

- Pencil Shading
- Shading and Tonal Values
- Light Source and Shadows



Lesson Objectives

At the end of this lesson, students should be able to:

1. draw different shades of an object;
2. understand how light and shade match; and
3. blend tones in charcoal drawing.



Pre-Test

Answer the questions below and write your answers on the space provided.

1. How effective is a tortillon in shading and toning a drawing?

2. To correctly draw light and shadows, what should you visually identify first?

3. What are the things to consider while defining the light source?

LD Lesson Discussion

22 Pencil shading is learning how to control the movement of your pencil. The pencil movements make the mark on the paper toward the creation of shade or effect that you want. To begin with, decide if you want to use the point or side of the pencil to shade with.

In the example, the shading on the left is shaded with the pencil point while at the right was shaded with the side. It may not be that visible, but you can see that the side shading has a grainier, softer look and covers a large area quickly. A sharp point, when used, allows more control; you can do much finer work and get a greater range of tone out of the pencil. Experiment with both ways and see how they would look on your paper. Try shading with hard and soft pencils, too.

The first thing most people do in pencil shading is to move the pencil back and forth in a regular pattern, with the turn at the end of each movement. The trouble with this technique is that when you shade a large area, that even edge gives you a dark line through your area tone.



Sometimes it is only faint but often it looks obvious and it spoils the appearance that you are trying to create with your pencil shading. To prevent this unnecessary banding through a shaded area, try changing the pencil direction at irregular intervals, making a long stroke, then next short then overlapping when needed.



Another alternative to the regular sideways shading is to use small and overlapping circles.



You need to use a light touch with the pencil and work area in an irregular, overlapping pattern to gradually build up the graphite on the page. Try using a light touch on lighter areas.

In shading, direction is important. The rough change of direction shows the difference on the edge between the horizontal and vertical shading direction. Even if your shading is more even and the pencil marks less obvious, the effect is still there. The secret is to control the direction of your shading.



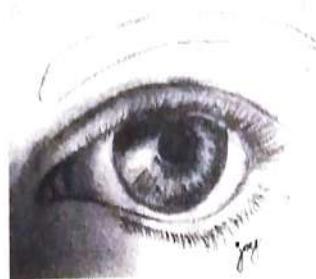
You can also vary the pressure on the pencil to create light and dark tones. The precise control can allow you to model smooth forms. This type of technique is useful for creating highlights across textures like hair or grass.

By following the shading techniques mentioned, let us try combining perspective drawing and shading.

Shading and Tonal Values

Shading and tones when mixed make a realistic drawing. Below are the tips in doing the shading and toning technique:

1. Avoid using outlines. In creating a value drawing, forbid yourself to draw a line and focus on areas of value. You might use the lightest of lines to get down the basic shapes then from there, build up the shading. Oftentimes, the outline will be joined between two different values and is created by the contrast between the light and dark areas.



2. Use background to define the foreground objects. Focus in drawing the shadows and background. Use them to provide contrast. Remember that it is okay to let an edge fade into the background but do not outline.
3. Use the proper tools for the job. There are different types of pencil that you can use. The smaller the number of the pencil, the lighter shade that you can make. For very dark areas a 4 or 6B might be needed.
4. Use the pencil accurately. Keep your pencils sharp and apply the tone with small rapid circular or sideways movement of the hand. Randomly vary your start and end point. An eraser can be used to lift off highlights. For beginners, try to avoid smudging or blending at first but rather learn to get the most out of the pencil mark.



When you have practiced well in toning and shading, you may already use a tortillon. A *tortillon*, also called smudge sticks or blending stump, are rolled tubes of paper that are used to smudge drawings. It comes in many different lengths and widths. You can buy them in art stores or you can make your own by rolling sheets of paper.

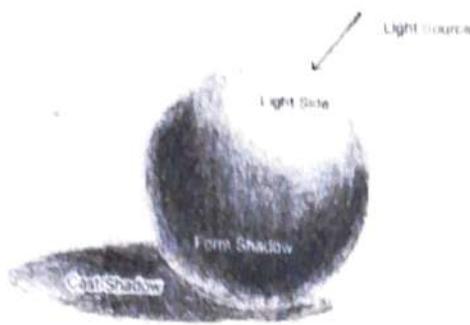
Light Source and Shadows

A light onto an object creates lights, darks and shadows. Light sources may differ from sun, moon, or artificial light.

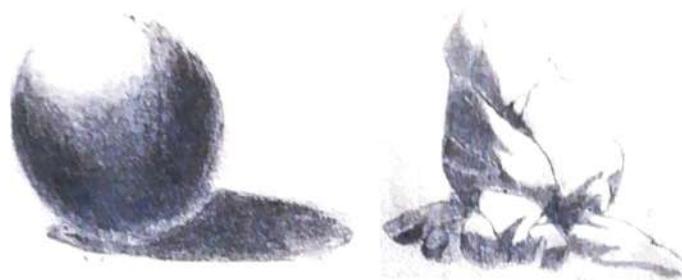
To appropriately draw the light and shadows correctly, you need to be able to visually identify the following:

- Light Source – the origin of the light
- Light Side – the area where the light is mostly visible
- Form Shadows – the areas of the object that displays little or no light
- Cast shadow – the dark area where light is blocked

HB - Hard Blackness of the pencil

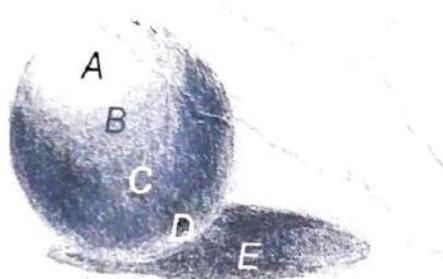


Seeing how a light source affects an object is more challenging than examining a drawing. It would help if you experiment on your own using a flashlight or a lamp and place an object on a surface. Shine a light onto the object and observe it from different perspectives.



Each time you move the light source, observe the following:

- Where is the light coming from?
- Which part of the object is the lightest?



- | |
|---------------------|
| A – Highlight |
| B – Halftone |
| C – Core Shadow |
| D – Reflected Light |
| E – Cast Shadow |

KT Key Terms

- **Tortillon** – also known as smudge sticks; are rolled tubes of paper used to smudge drawings
- **Light Source** – the origin of the light as it shines to the object or subject
- **Form Shadow** – the areas of the object or subject that displays little or no light
- **Cast Shadow** – the dark area where light is blocked

QD Questions for Discussion

1. What is the importance of knowing how to shade and what to shade in drawings?
2. What techniques did you use to make the shadings look smooth and realistic?

LA Learning Activity

Activity 10.1. Shading Practice

Materials:

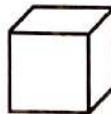
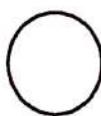
- Sketching paper
- Newspaper black-and-white picture. A size that would match your sketching paper size.
- 2H, HB, B, 2B and 4B pencils
- Eraser
- Tortillon
- Glue

Procedure:

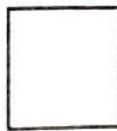
1. Cut a large section of the image. You may choose if it is horizontal or vertical.
2. Glue the part you are not drawing and keep the other half blank.
3. Using the torn-off piece as your reference, complete the picture by drawing the other half with your pencil.

Activity 10.2. Shade the objects appropriately based on the light source.

1.



2.



S Summary

In this lesson, you have learned how to use your pencil properly to create a realistic drawing. Shading is not just merely moving your pencil to create the effect. By using the proper stroke and direction, you can create the perfect highlight needed for the drawing. Shading and toning enhance a perspective drawing significantly.

Light and shadows visually define objects. If you could train your eyes like an artist, you can easily draw light and shadows. By determining the light source, the light values and shadows can be drawn appropriately.

PT Post-Test

1. How effective is a tortillon in shading and toning a drawing?

2. To correctly draw light and shadows, what should you visually identify first?

3. What are the things to consider while defining the light source?

SE Self-Evaluation

Evaluate yourself against the skills listed below. Check the option that you think is most appropriate to you.

Skills	Weak	Good	Excellent
Understand the pencil shades and strokes			
Identify the light source and shadows of an object to draw			
Use the proper pencil stroke in drawing shadow effects			

Lesson 11: Body Built Using Circular and Rounded Forms

- Developing a Cartoon Character
- Using Circles and Ovals in Designing a Character

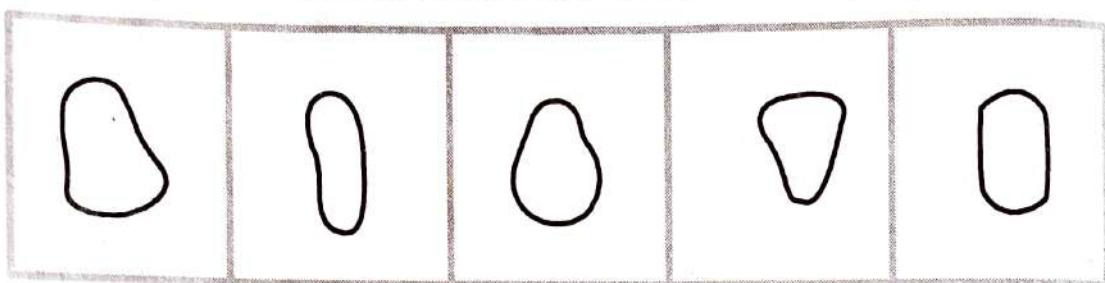
LO Lesson Objectives

At the end of this lesson, students should be able to:

1. use the circular and rounded technique as base drawing;
2. develop the basic shape of the character; and
3. create an original cartoon character.

PT Pre-Test

Use the images below as a body. Create a character based on the shapes given.



LD Lesson Discussion

Now that you are done with the script, major concept, and character design, it is now time to think about your filmic approach. This is where the thumbnails come in. A thumbnail is a sketch of the story sequence that enables the filmmakers to quickly draw a scene as it occurs to them. It may not be in sequential manner.

Developing your first cartoon character is an exciting experience. However, developing a character is not just a matter of drawing the figure. You should draw it with your perceived personality, features, shape, and mannerism. This will make your character lifelike and believable.

One of the most important factors in cartoon construction is the proportion. You must keep in mind the size and body parts because specific proportions are used to create character types.



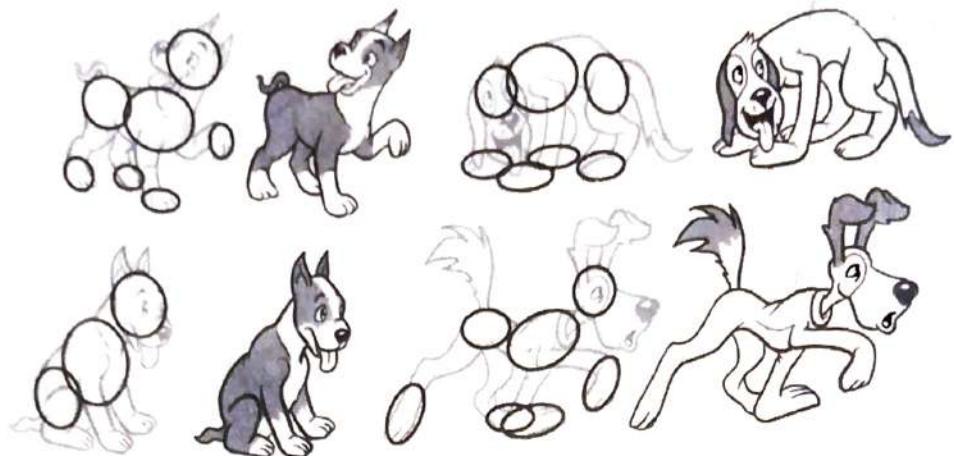
Animation studios often use head size to determine the height of a character. Look at the drawings below and measure each one in heads.



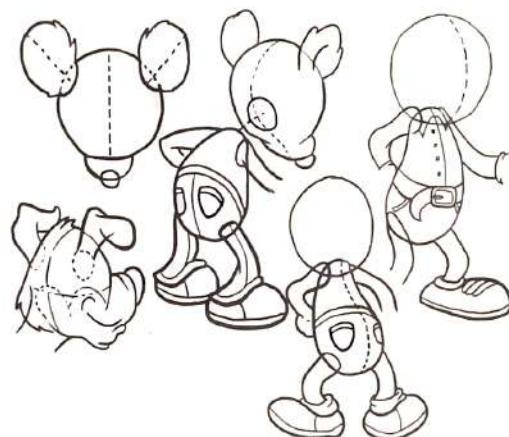
The head size mostly dictates the proportion and height of your cartoon character. In drawing a character, it is better to keep a reference guide for each character you make so it will be easier for you to determine the size.



To continue, the animated cartoon character can be based on circular, rounded forms that will serve as guide for animators. The simplicity of the circular technique makes the animation stage easier and animators can follow through the guides.



The parts of the character fit together at socket points.



Combining circular and rounded forms, then joining with pear-shaped bodies to support the circular heads, will add interest to the overall character.



KT Key Terms

- 27 **Circular Technique** – a drawing technique that uses different circle shapes to determine the proportion of the character
- 28 **Socket Points** – the areas from the circle proportions where the parts of the body are connected

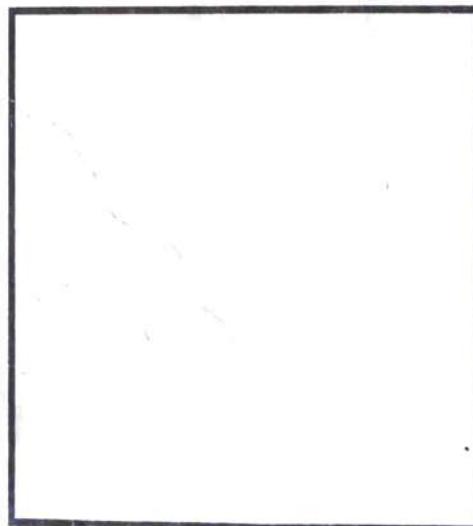
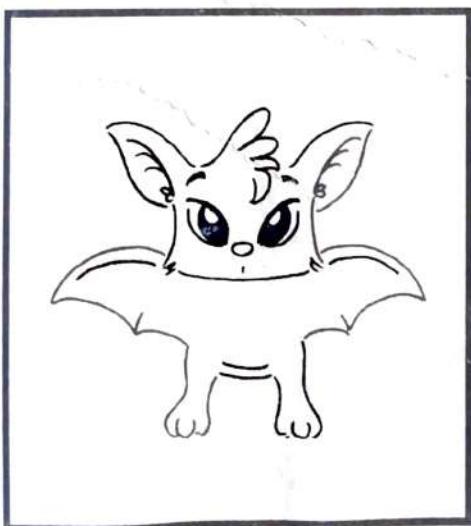
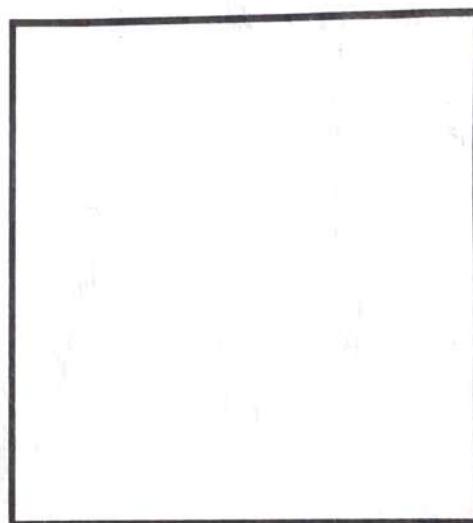
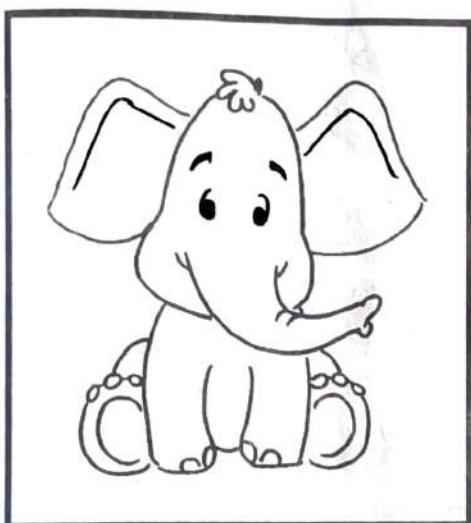
QD Questions for Discussion

1. When you draw, do you prefer to use simple basic shapes or create your own? Why?
2. Which would you prefer to draw, a funny character or an action figure character? Why?

LA Learning Activity

Activity 11.1. Dissecting Animals

Break down the drawings below into its simplest form using basic shapes.

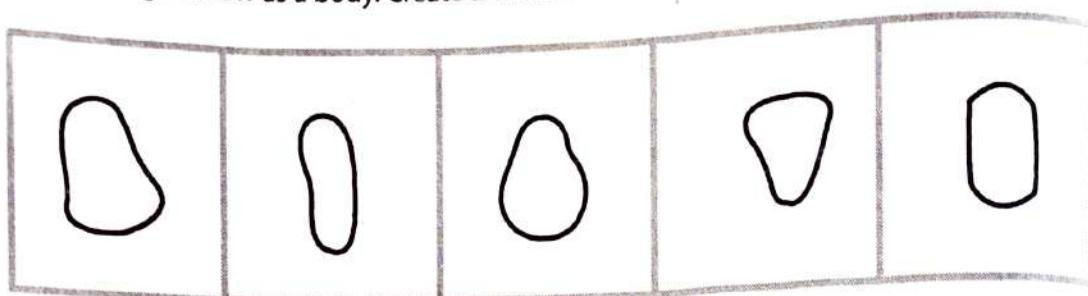


S Summary

Drawing your character should start first by planning the shape and personality of your perceived cartoon. When creating a character, begin with drawing the rough idea then this sketch will be the guide for the type and nature of the character you wish to create. The circular techniques will greatly help by determining the size of the head then the body to keep the character in proportion.

PT Post-Test

Use the image below as a body. Create a character based on the shapes given.



SE Self-Evaluation

Evaluate yourself against the skills listed below. Check the option that you think is most appropriate to you.

Skills	Weak	Good	Excellent
Determine the proportion of the character using rounded shapes as guide			
Analyze proportions of a character			
Develop own character design			

Lesson 12: Character Creation: Skeleton Foundation

- Use Stick Figures
- Rough Sketch a Character
- Add Body Mass

LO Lesson Objectives

At the end of this lesson, students should be able to:

1. understand the importance of skeleton drawing as foundation to character drawing;
2. use the wire drawing technique as base for character poses; and
3. define joints for animating a character.

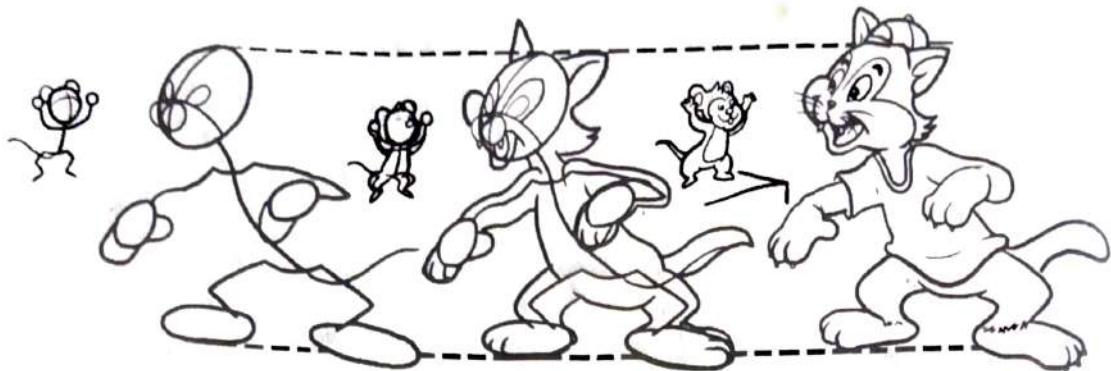
PT Pre-Test

Using a stick figure, draw the following poses.

1. Standard Walk	2. Running
3. Sitting	4. Lean on Wall

LD Lesson Discussion

Let us go into the details of building the rough sketch of your character. First, build from a rough skeleton. Do not yet expect the first skeleton drawn to be perfect. You may need to experiment on several tries. Try to draw several designs and choose the best.



Let us start off by using stick figures. This simple drawing may be simple but it may represent a very important basic element of any subject that you want to draw: proportions.

Basic Stick Figure



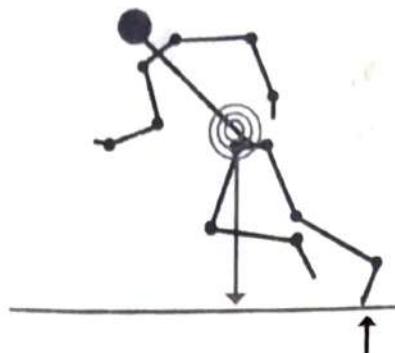
Stick Figure with Proportions



Using stick figures, you can try out many positions before plunging into complex drawings. It will help you plan the attributes of your character.

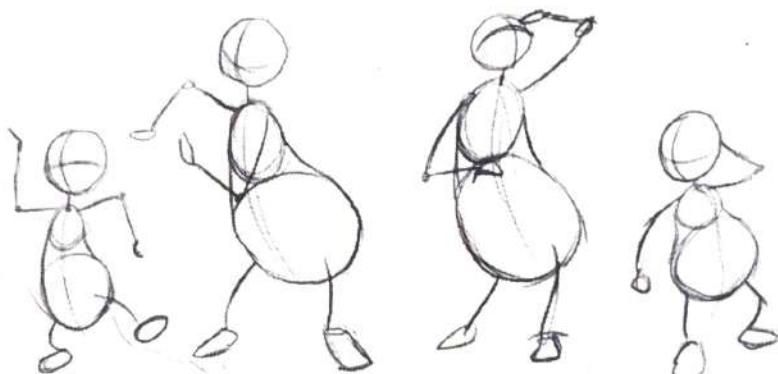


When you set a pose, observe the center of gravity, which is typically in the underbelly of a human.



The running motion has the center of gravity in front of the resting point. If you have mastered the poses using stick figures, you may now add the round or pear shapes for the body masses.

Try to keep the drawings on a separate paper so that you could easily refer to the previous draft and compare with what you are currently drawing. If you draw any kind of character, you need to understand the main differences in muscles and bones. This knowledge will help you distinguish the character's joints, such as elbows and knees.



Here are three steps to create a rough sketch of the character:

1. Work out the skeleton structure.



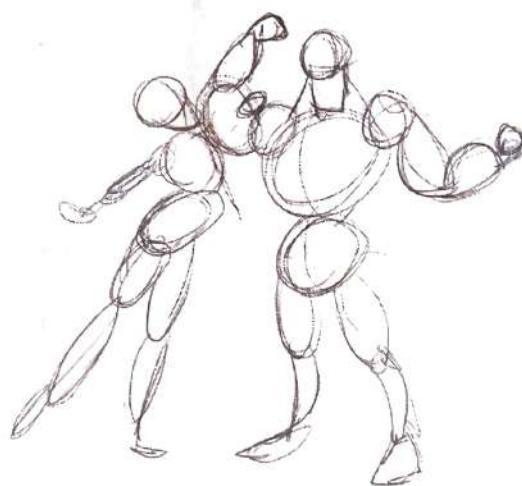
2. Construct the body masses around the skeleton.



3. Add in the details over the masses.



Remember to keep in mind the relative size of body parts because it is where the structural features of your character will be based. For example, a strong man should have a small head but a big chest with well-defined arms and legs. While a princess-like character will have proportions of a baby with a larger head than the body.



Your sketch will be the guide for all your animation drawings. On this stage, you will improve your draft until you get the output you have been trying to achieve. After the proportions are defined, the next step is to develop the expressions of body movement, hands, and legs. Even just by the hand drawing, you can tell a complete story in only one position. We will discuss more about hand drawings in one of the preceding lessons.

Cartoon drawing is very different from realistic drawing. In cartoon, you should be able to tell a story with each scene even without dialog. The gestural and physical characteristics must be clear.



So, what character are you trying to work out? By practicing the drawing techniques in this lesson, you will be able to quickly try out numerous poses easily. It can save you time and in the end, you will have a better-composed and thought-out character.

KT Key Terms

- **29 Skeleton Drawing** – begin a drawing using the skeleton structure
- **20 Body Masses** – go after the skeleton draft where the muscles and character weight is determined

QD Questions for Discussion

1. When you draw, do you prefer to use stick figure or shapes? Why?
2. Does your character have many characteristics? If so, which one do you think would you be using most of the time and why?

LA Learning Activity

Activity 12.1. Scale It On

Using the knowledge you have gained from this lesson, use a stickman to draw the appropriate figure based on the suggested labels inside each box.

Basic walking	Run for your life!	Sneaky
---------------	--------------------	--------

Walk like a boss

Just broke up

Exhausted

S Summary

Drawing your character should start first by planning the shape and personality of your perceived cartoon. When creating a character, begin with drawing the rough idea then this sketch will be the guide for the type and nature of the character you wish to create. The circular techniques will greatly help by determining the size of the head then the body to keep the character in proportion.

PT Post-Test

Using a stick figure, draw the following poses.

1. Standard Walk

2. Running

3. Sitting

4. Lean on Wall

Self-Evaluation

Evaluate yourself against the skills listed below. Check the option that you think is most appropriate to you.

Skill	Weak	Good	Excellent
Draw skeleton drawings in different poses			
Use the skeleton drawing as foundation to character drawing			
Make different animated characters by using the technique			

Lesson 13: Construction of the Head

- Realistic Head vs. Cartoon Head
- Drawing a Turned Head
- Head Features
- Facial Expressions



Lesson Objectives

At the end of this lesson, students should be able to:

1. draw a head base for the character;
2. add the eyes, nose, ears, and mouth to complete a character's personality; and
3. give different expression to characters.



Pre-Test

Use different shapes and fill in the table below. Combine all the head parts and draw them on the last column.

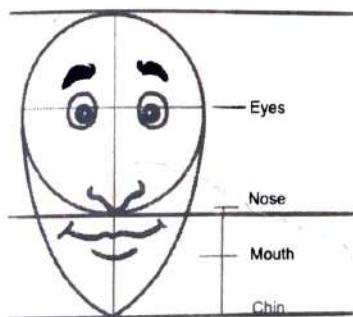
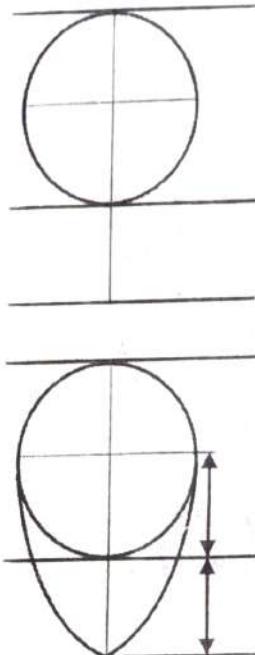
Head	Eyes	Nose	Ears	Mouth	Combination

Lesson Discussion

Designing a head needs familiarity with basic shapes. The head makes the cartoon character. To be more creative in head designs, try to study faces and observe what makes people different from each other. To construct the head, remember its shape, spacing, and features. Before we discuss the features, you need to know how to construct heads. Let us first use the spacing feature to make a head that has realistic proportions.

Realistic Head vs. Cartoon Head

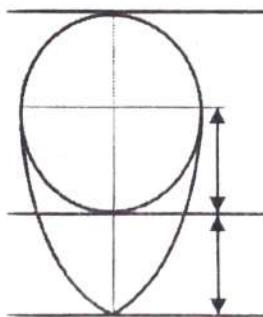
1. Draw a circle representing the skull of your character. Divide the circle in half both ways. These horizontal and vertical lines are called *center guidelines*. This guide will help you where to place the facial features of your character.
2. Measure the height of your circle and then measure 1/2 of that height from the bottom of the circle and make a mark. Draw the jaw by connecting the sides of the circles to the mark.

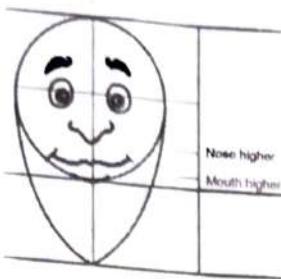


3. On the horizontal centerline, draw the eyes about halfway from the center to each edge. Draw the nose at the bottom of the circle. The mouth goes between the nose and the chin.

Now, let us change the spacing away from realistic proportions. Notice how changing the feature spacing results in different character types.

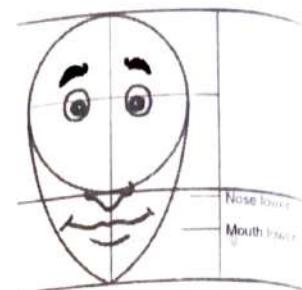
1. Draw the same head measurement as on the realistic head.





2. Draw the mouth where the nose was on the realistic drawing, the nose in between the mouth and the eyes. This creates a character with a short nose and a large chin.

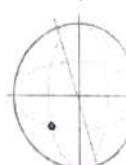
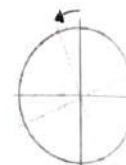
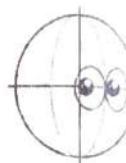
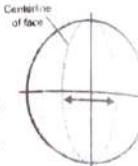
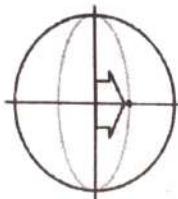
3. Draw another head. Place the nose lower than the standard location. This creates a character with a long nose and little chin.



Drawing a Turned Head

To learn how to draw the head in different positions, think about the next moves of the head. The neck can rotate the head to the left, right, up, and down. It can also tilt the head left or right. Using the same circle template from the previous discussion, let us draw a head looking at his left.

1. Draw the circle and the center guidelines.
2. Draw new guidelines for a rotated head. The new guides are two curves to the left and right of the original center guide. It should also have the same distance away from it.
3. Mark the eyes position.
4. Add the eyes touching the face center guides.
5. You may now add the features needed to complete the character.

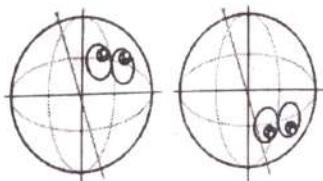


Now, let us try the head up or down.

1. Make a new circle and add a center guideline.
2. Add another center guide but this time not exactly on the center as shown below. This will add an effect of a face looking up.
3. Add the eyes touching the center dot.

For the head tilt left or right, here are the steps:

1. Draw the circle with the center guidelines.
2. Add two intersecting ovals as guide for the eyes drawing.



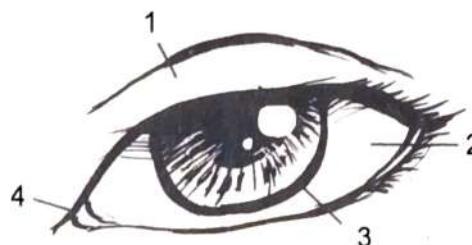
3. You may now add the eyes on the intersections of the oval to create a tilting head effect.

Head Features

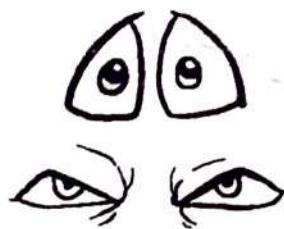
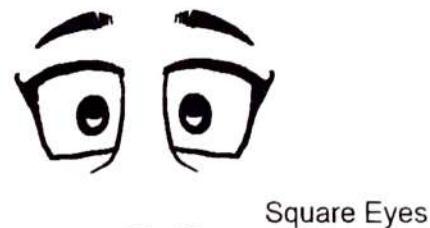
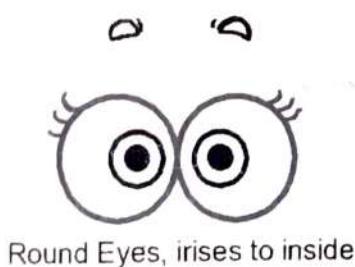
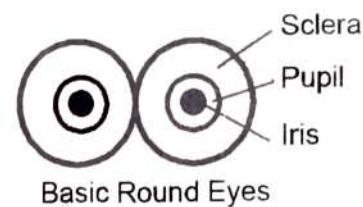
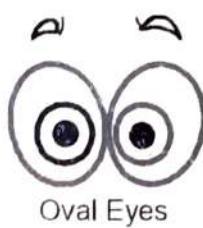
Drawing the Eyes

The eyes play a major role in your cartoon characters. You can draw realistic eyes then distort or enlarge them to show terror or frustration. Exaggerated eyes are a cartooning hallmark. Before you can draw a cartoon eye, you must first learn to draw a realistic-looking eye. Here is how to draw a realistic-looking eye:

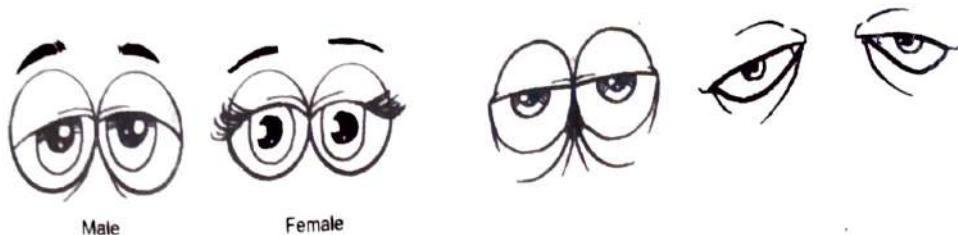
1. Draw the eyelids first. Concentrate on the shape of the lids.
2. Imagine the eyeball. The eyeball should be drawn as guided by the eyelids and surrounding elements.
3. Draw the center of the eye. The center includes the pupil, iris, and the cornea. Draw a thin, dark ring, a colored ring, and a black circle in the middle.
4. Add the finishing details. Draw the tear duct on the corner and the eyelashes.



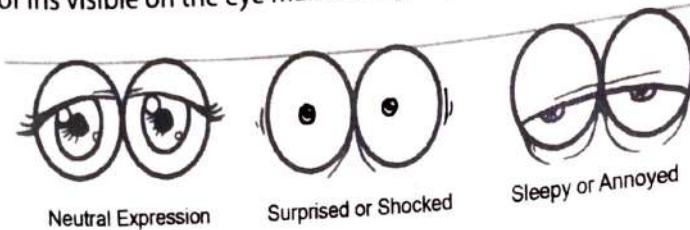
To draw the cartoon version, change the usual shape to triangular or square. The shape does not need to be geometrically correct, just the number of sides.



Eyelids and eyelashes make any type of eye look masculine or feminine. If the character is tired, you can add eye bags.



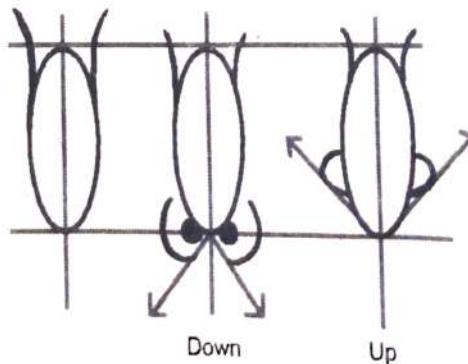
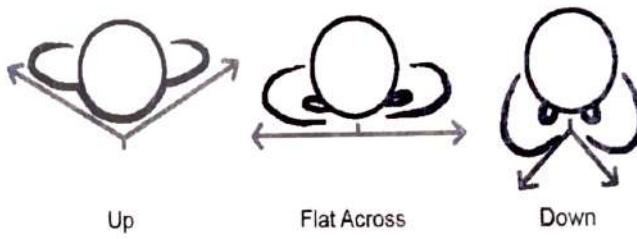
The amount of iris visible on the eye makes a big impact on the expression.



Drawing a Nose

The nose can say a lot about your character. Noses come in all shapes and sizes. Before you can sketch a nose, you need to first know the nose's parts: the bridge of the nose (or top) and the nostril. To draw a nose:

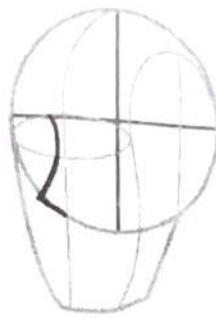
1. Start with the bridge and draw a line down and then a sharp turn under to form the nose shape.
2. Draw the nostrils. You can draw a curve line at the bottom of the nose so that it forms a small "c" shape.



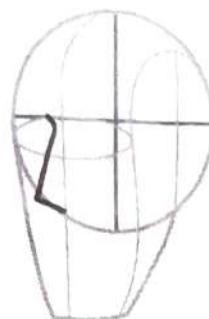
Pugnacious - quarrel or fight

124 Animation Itty-bitty - tiny, small

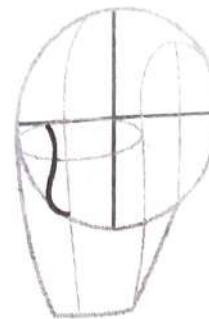
In 3/4 view, the top of the nose does not touch the face center guidelines.



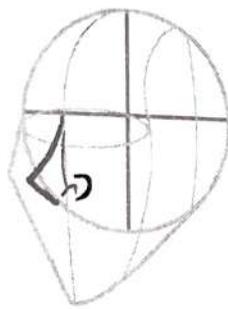
Curved Line + Straight Line



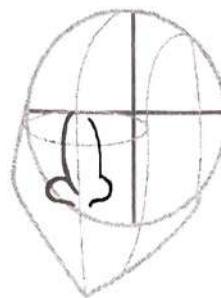
All Straight Line



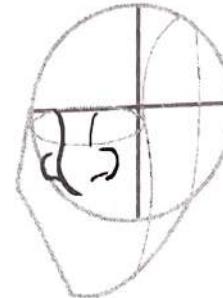
Double Curve



Triangles



Ovals



Squares

Male noses usually are larger than the female noses. Females are generally drawn small and pointier. If you are drawing a child, keep the nose small which conveys that the character is young.

Drawing the Mouth

Putting a mouth on your character can be by just simply drawing a line below the nose. However, the mouth may define great emotions for your character. To draw a mouth in various expressions, here are the guidelines:

- Smile or Smirk



- Happy



- Sad



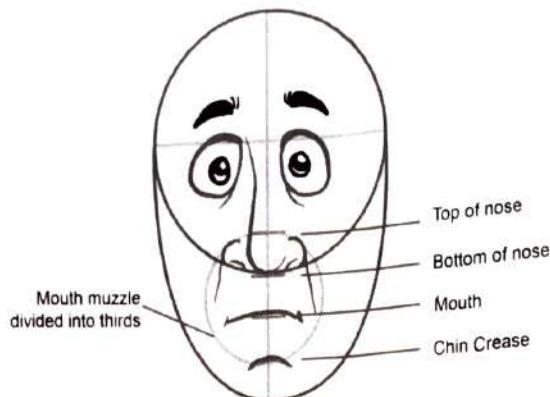
- Angry



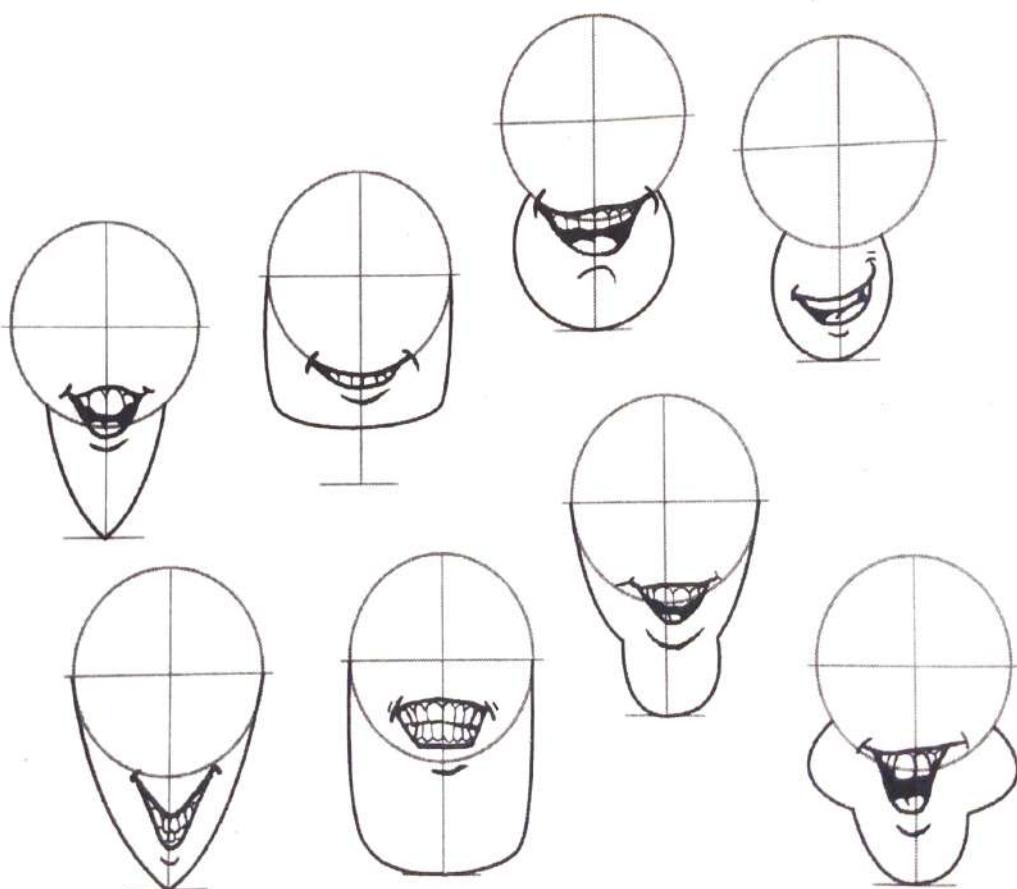
Sometimes, it is faster if you draw a simpler mouth. To draw a simpler mouth, choose one angle for the top line and one letter shape for the bottom line.



As for the position of the mouth on the head, draw a mouth muzzle (a circle) from the top of the nostrils to the chin crease. Divide the circle into thirds to locate the mouth opening.

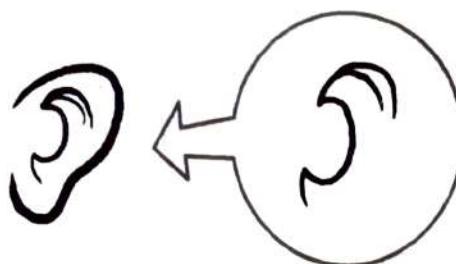


Try combinations of mouth shape, placement, and chin shape for each sketch that you make. You will definitely get the best for your character by this.

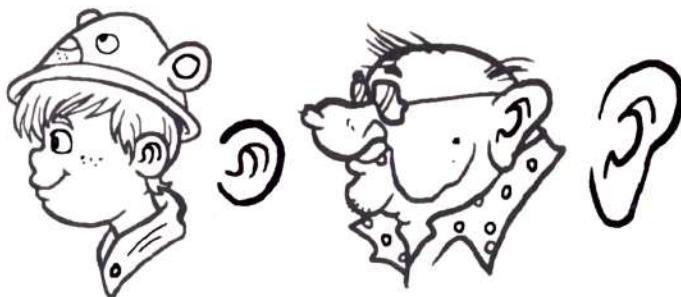


Drawing the Ears

Like noses, ears can give specific expression and help define the character's personality. To draw an ear, follow a question mark pattern. The outer ear curves around and is large or even pointed at the top compared to the bottom.



The right ear shape defines your character's personality. A big ear means a goofy character while a pointed ears shows a sinister type. Same with the nose, the size depicts the age. A child character's ears should be small and round. An old man's ear should be large and drooped.



Drawing the same character more than once requires careful construction. If you draw even a slight difference with your feature spacing and placing, you will end up with an entirely different character. Accuracy is the key.



Spook - frighten

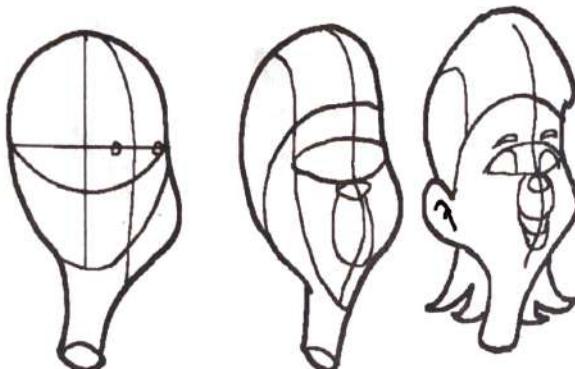
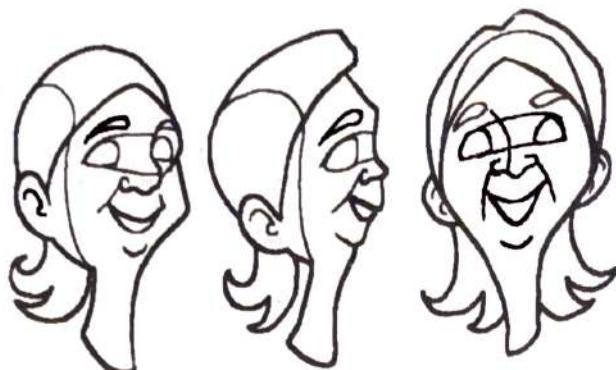
Goofy - harmless

Sinister - harmful or evil

droop - bend or hang downward

limply / lawlaw

As your drawing skill improves, try to do idea sketches in the form of turnaround charts. It is a trial and error experience along the way.



Make some shape and line choices, then repeat them throughout your cartoon. Artists call these design language. Many artist call their design their "style." Practice and start making your own style.

KT Key Terms

- **Center Guidelines** – guideline used to draw the elements for your character's head
- **Design Language** – shapes and line choices for your cartoon character

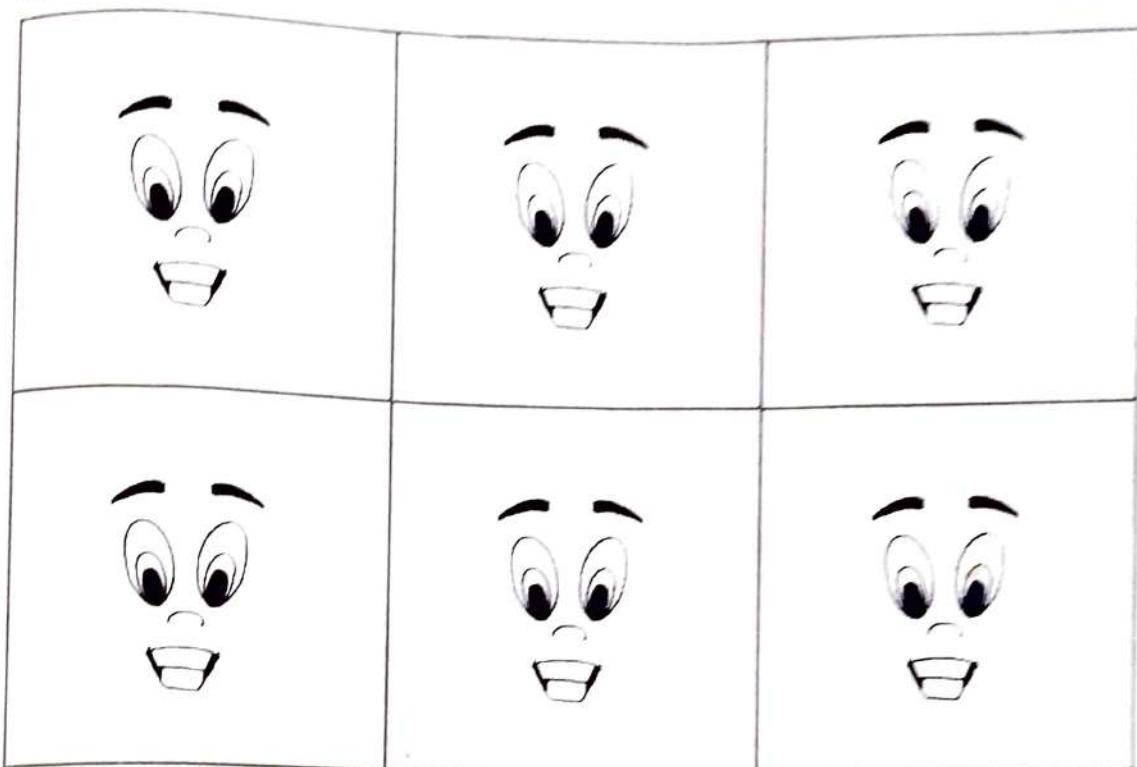
QD Questions for Discussion

1. Among the head, eyes, nose, and mouth combination, which do you think is easy to draw?
2. How does the turn head guidelines help you in creating a proportional head?

LA Learning Activity

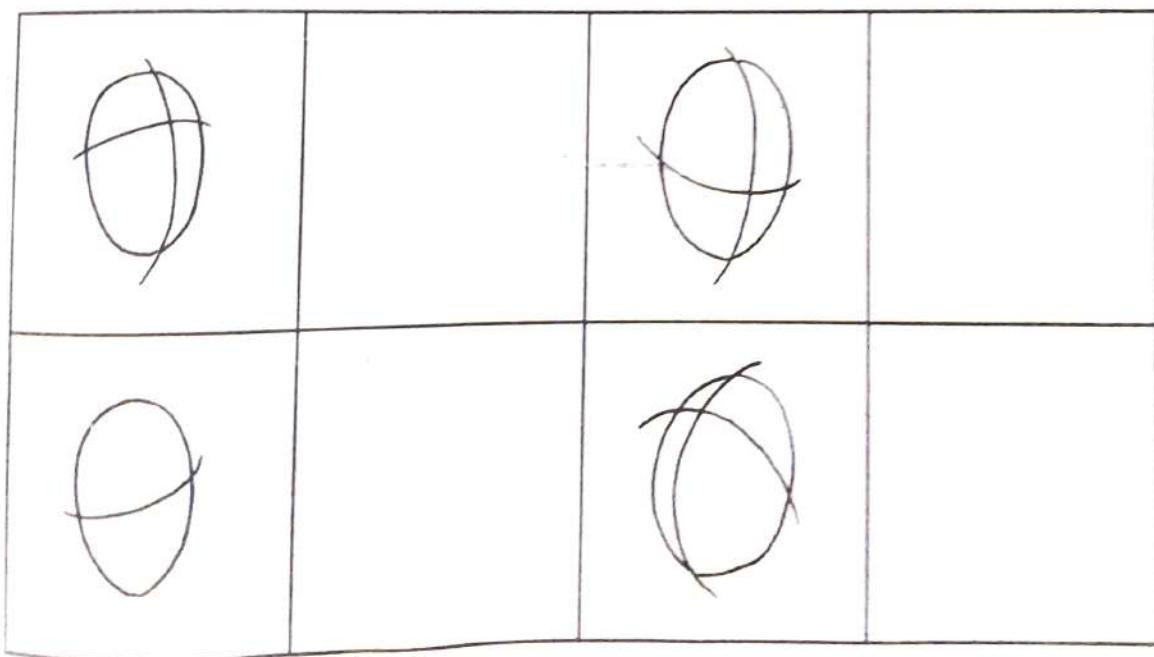
Use funny, unusual shapes and fill in the box below.

Head



Choose one head shape you used on the Head activity and use it on the table below. Based on the perspective given on the left column, draw its counterpart on the right column.

Head Turn



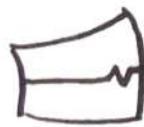
Eyes and Brows

	Sad	Mad	Confused	Energetic	Surprised	Vengeful
	Hopeful	Grief-stricken	Afraid	Angry	Spooked	Amazed

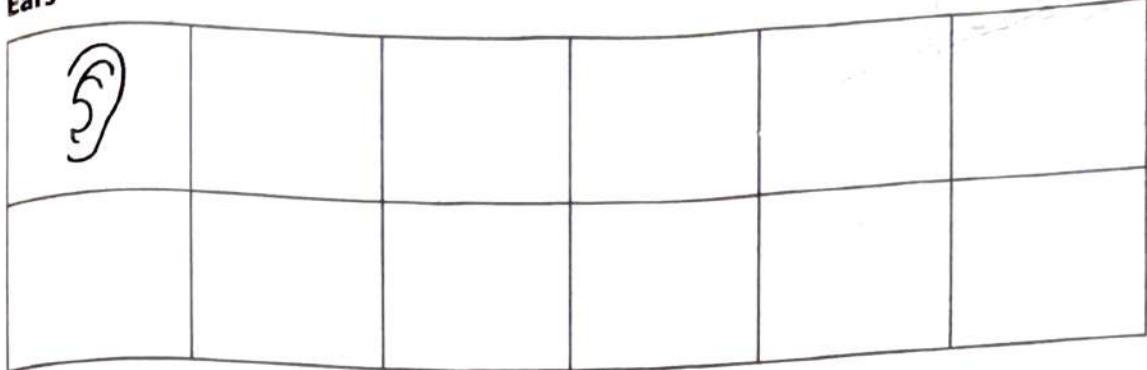
Nose and Turn

Side	Front	Side	Front
			

Mouth

Ears



S Summary

In this lesson, you have learned how to draw a head foundation from a circle and center guidelines. These guides will help make different character designs. The different positions may also be drawn proportionally using additional guides and ovals. For the facial features, you have also learned that the eyes play a major role on a cartoon. By changing the realistic shape differently, it may project a cartoon image. The eyelids and eyebrows make a male or female effect. The mouth is one of the expressive features that shows different feelings. The nose and ears add character to the drawing which may define if it is a kid or an adult.

PT Post-Test

Use different shapes and fill in the table below. Combine all the head parts and draw them on the last column.

Head	Eye	Nose	Ears	Mouth	Combination



Self-Evaluation

Evaluate yourself against the skills listed below. Check the option that you think is most appropriate to you.

Skills	Weak	Good	Excellent
Draw a head base for the character			
Combine the correct eyes, nose, ears, and mouth for the chosen character			
Make a rotating chart of the drawn character			

Lesson 14: Drawing of the Body

- Start with Circles
- Outline Stick Figures
- Proportions for Different Characters
- Drawing the Arms
- Drawing the Fingers
- Drawing the Legs and Feet

LO Lesson Objectives

At the end of this lesson, students should be able to:

1. understand the importance of a character's body type;
2. use circles as the basis to draw a character's body; and
3. draw the necessary features for the character.

PT Pre-Test

Turn this into a chubby type superhero	Rough sketch made of circles	Final output
Turn this into a slim type superhero	Rough sketch made of lines	Final output

LD Lesson Discussion

The body of your character defines its character and adds personality. It conveys action even if your character is standing still. In cartoons, you can exaggerate and distort the body to create a unique set of characters. Once you are done with your head, building the body is relatively easy to do. Let us discuss two methods in building the body of your character.

Method 1: Start with Circles

When you start drawing, always begin with the main area or focus of your character. Usually, it starts with the torso. Doing so will help you define the rest of your character. Drawing a classic cartoon body begins with sketching the basic shape, either a circle or oval.

1. Sketch a large circle or oval. The circle does not have to be perfect, just a rough sketch to define the area that will serve as your guide.



2. Add a smaller circle below the large circle. This will establish the space for your character's body.



3. Draw a vertical line down the middle of the larger circle and draw a horizontal line across the middle. This will center the face in comparison to the body. The lines will also serve as guide for the arms and legs.

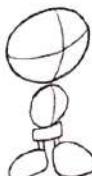


4. Draw a square or rectangle where the lower body and legs will be placed. This should be drawn below the small circle. The square space is important as it establishes the area for the waist and legs.



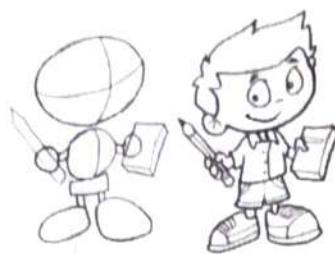
Notice that the center guidelines are slightly curved and not exactly centered in the circles. The guides should follow the curves, which give the circle a more dimensional look and feel.

5. Draw the legs coming down from the square. Just draw two vertical lines to make up the legs and two small circles for the shoes.

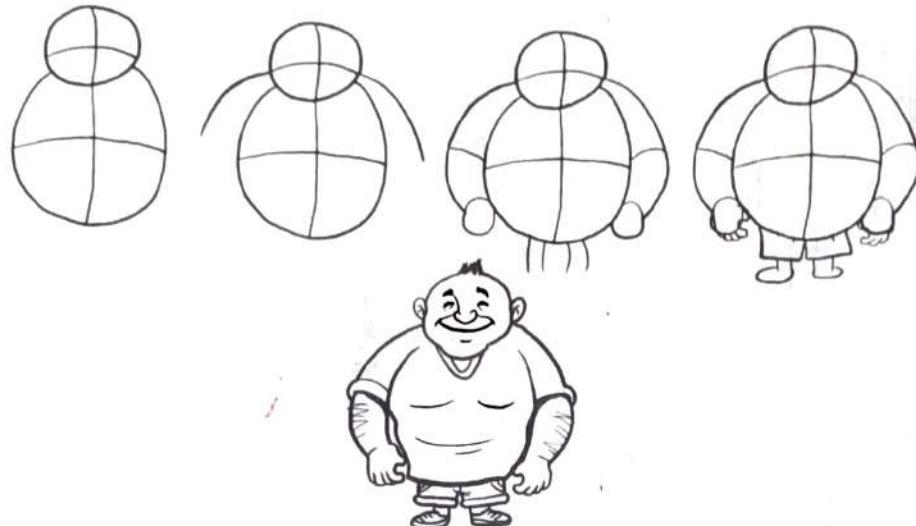


6. Lightly pencil in the details.

7. Add more details and accessories to the character to convey his personality.



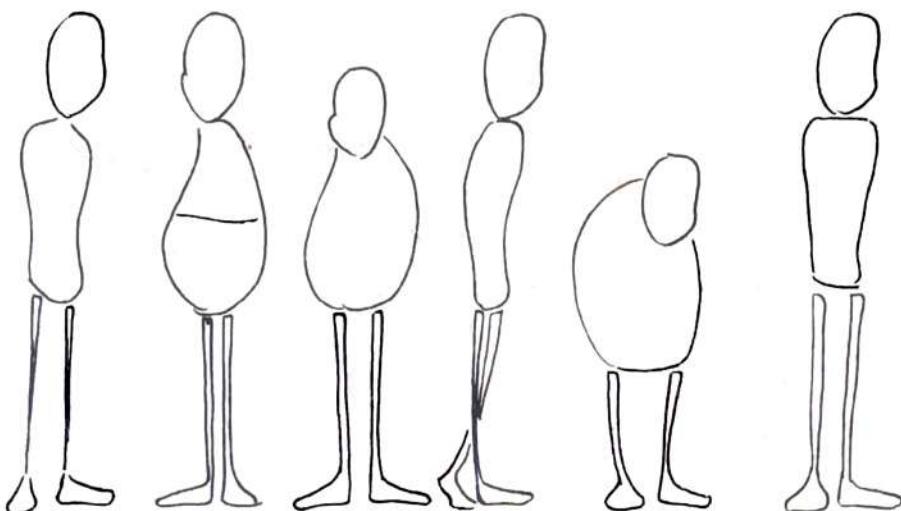
That is how you draw a typical cartoon character. You can easily make new characters by moving the shapes around.



By using the circle technique, combined with your creativity, you may be able to create different characters for your animation project.

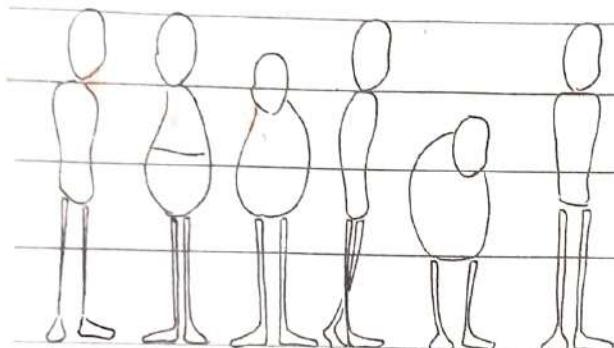
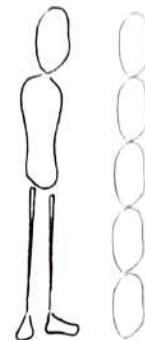
Method 2: Outline Stick Figures

You can start by sketching pose ideas using stick figures and then unite the head and body into a drawing that is free of errors and ready for inking. Here are the steps to use this method:



1. Choose a head that you like from your previous head sketches. Draw a head shape in 3/4 view then add the outline stick figure body in a simple standing pose.
2. Right next to the first stick figure, draw a head of the same shape and at the same height as the first one, but in the opposite facing 3/4 view. Add a stick body with a different body shape and waist height.
3. Draw a third head using the same shape. Starting from the top of the head at the same height as the first two, but make this head smaller and in profile view.
4. Draw the fourth variation, using the smaller head from step 3 but with a different body shape and waist height.
5. Draw a fifth stick figure that is shorter than the others, again using the smaller head from step 3 and changing body shape and waist height.
6. Keep adding stick figures with different proportions and body shapes until you find one that you like.

Determining the height may be a little tricky. To help you decide, the head height proportioning may help. The distance from the top of the head to the bottom of the chin is one head height. Imagine your character standing next to a stack of its own heads. That is the head height. Choose the best proportion then use a ruler to measure your character's head height. Mark off head heights from the ground up.



Use a ruler to mark horizontal lines across the page representing your chosen number of head heights. Then draw three to five figures with the same head height but different body types.



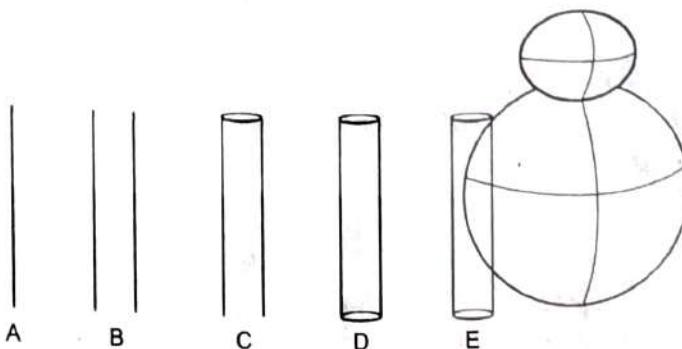
Proportions for Different Characters

- Adult cartoon character is 5 to 6 heads tall.
- Babies are 2 to 2.5 heads tall.
- Kids and teens are in between. The taller a child's proportions, the older she will look.

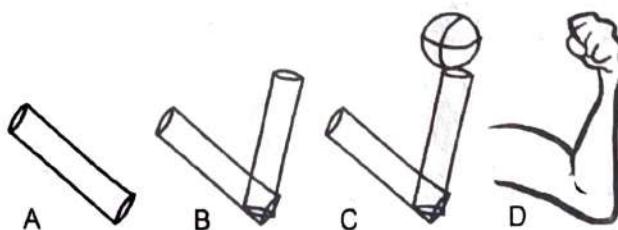
Drawing the Arms

Arms start out as cylinders and should fit the character's body type. To draw a basic arm, follow these steps:

1. Draw a line starting at the top of the shoulder and coming down along the side of the torso. The line that you make should depend on your character's actions.
2. Draw another line mirroring the first one drawn.
3. Draw small ovals at the top and bottom.



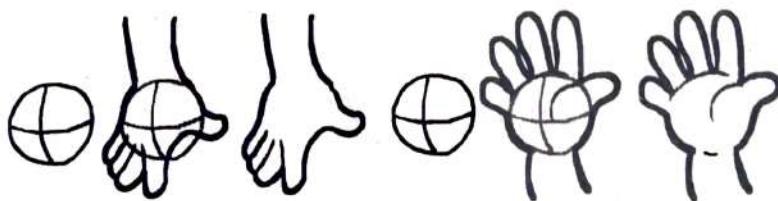
To draw a bent arm, draw another tube to form a V-shape.



Drawing the Fingers

Like the face, a hand can express certain emotions and are part of your character's body language. Compared to the feet, hands are points of interest and can do a lot to communicate to viewers. To draw a basic cartoon hand, below are the steps:

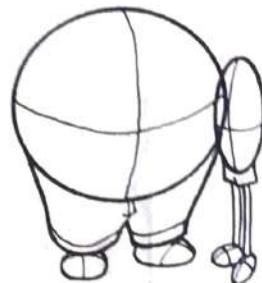
1. Draw a small circle.
2. Sketch the fingers and thumb.



Drawing the Legs and Feet

To start drawing the legs, first decide if your character will have small legs or bulky ones. The legs are basically easy to draw so keep it simple and not overdo it. Here are the steps to draw the feet, legs, and feet:

1. Draw two lines straight down from the bottom of the torso for the left leg.
2. Draw a mirror shape of the leg for the right leg.
3. At the bottom of each leg, draw an oval. This oval will determine the size of your character's feet.
4. Add the details like toes or shoes.



Once the body is complete, you will just need to add the details such as the clothes or other items. Remember that when designing your characters, make it simple, as too much details will slow the process of in-betweening.

KT Key Terms

- **Outline Stick Figure** – a drawing method which is used to sketch pose ideas using stick figures
- **Cylinders** – a drawing technique for drawing the arms of a character

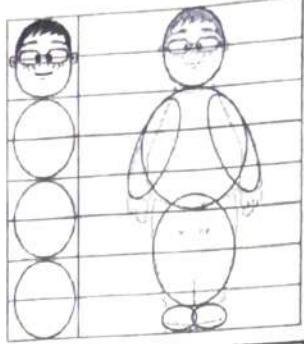
QD Questions for Discussion

1. In what ways are the methods discussed helpful in creating a character?
2. Between using basic shapes, creating outline, and using stick figure, what method did you use first and why?

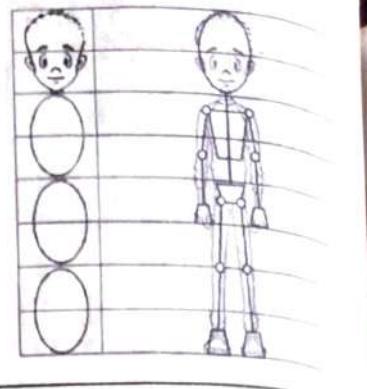


Learning Activity

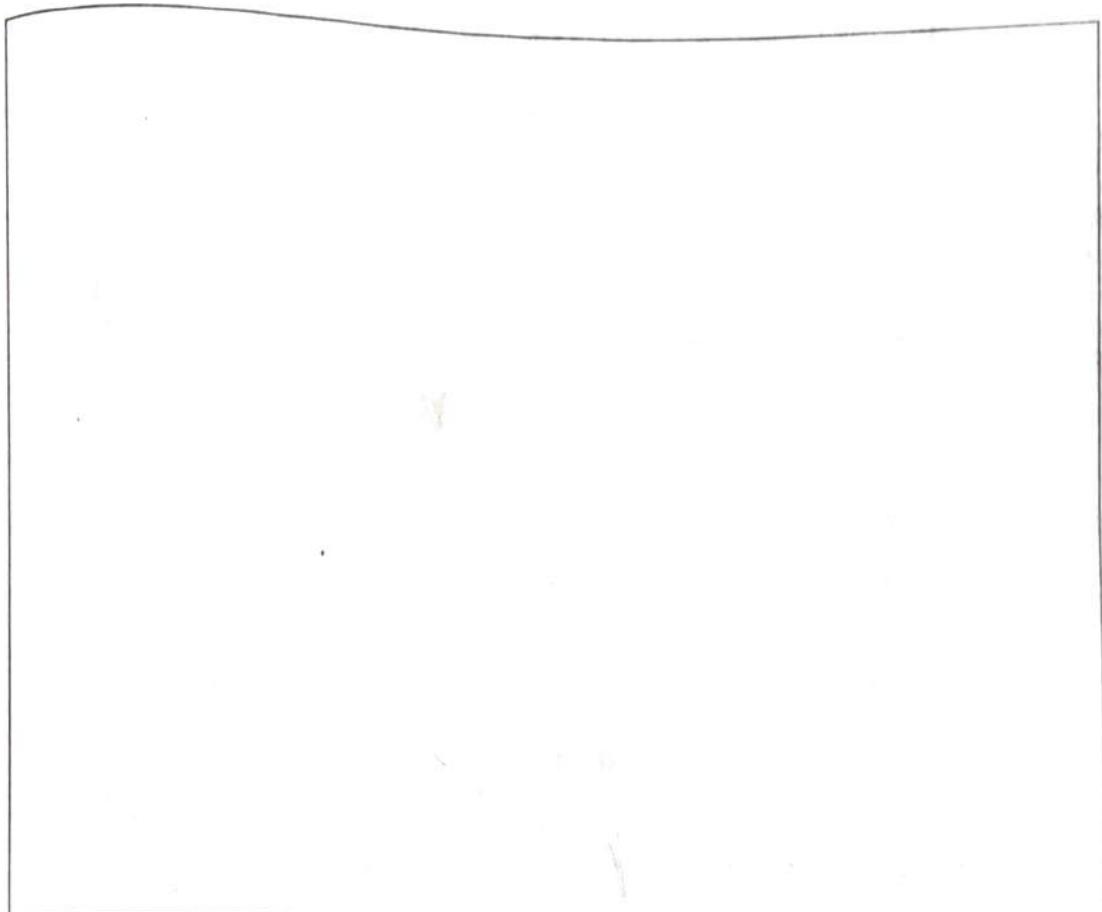
Activity 14.1. Using Method 1, draft the character of your choice in the table below.



Activity 14.2. Using Method 2, draft the character of your choice in the table below.



Activity 14.3. In this activity, you can use your hand as a model. Try to capture different poses/styles and turn it into cartoon. Use the space below.

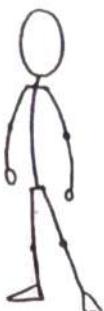


S Summary

Your character's body is an integral part of its personality. Its body helps define who he/she is. In this lesson, you have learned how to draw a body in two methods. You can choose the oval and circle method that will let you first draw circles to identify the size of the body you want for your character. The other method is the stick figure wherein you first draw the proportion and then add the masses for your character. After outlining the body, you may now add the details like the arms, legs, and feet. The clothes will also help to define the character but the best way to choose a character's clothes is to keep it simple.

PT Post-Test

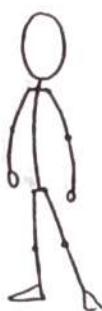
Turn this into a chubby type superhero



Rough sketch made of circles

Final output

Turn this into a slim type superhero



Rough sketch made of lines

Final output

SE Self-Evaluation

Evaluate yourself against the skills listed below. Check the option that you think is most appropriate to you.

Skills	Weak	Good	Excellent
Draw the character's body that matches with the head			
Draw the arms, feet, and legs			
Draw the clothes that matches the character's persona			

Lesson 15: Drawing Animals and Inanimate Objects

- Sketching Objects
- Drawing a Sofa
- Car Character
- Drawing Animals

LO Lesson Objectives

At the end of this lesson, students should be able to:

1. make a cartoon furniture and appliances for backgrounds;
2. draw animal cartoon characters; and
3. give inanimate objects a face.

PT Pre-Test

Turn these simple furniture into cartoon characters with facial expressions. Use the space provided below.



LD Lesson Discussion

The objects and environment that surrounds your character help enhance the story of scene. Appliances, gadgets, or nature make a realistic and entertaining output. The correct environment defines the scene. To start, observe the objects that you see every day. How will these help improve your target film or scene?

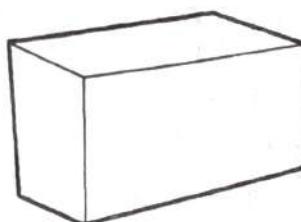
Sketching Objects

All cartoon characters should have a home, most of the time, at least. The best way to start sketching objects with is the objects that you see at home.

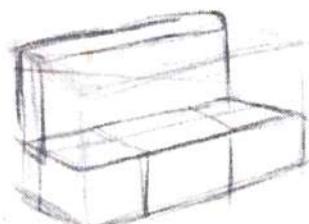
Drawing a Sofa

A couch is a usual setting in a cartoon. Here are the steps to draw a sofa:

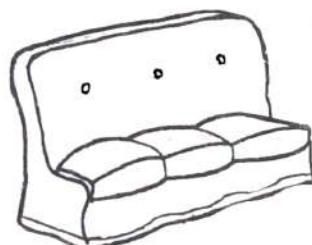
1. Sketch a long, 3D rectangle box.



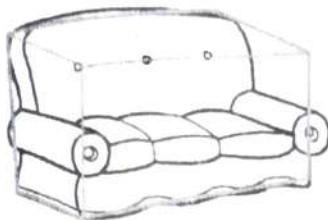
2. Start sketching the cushions that defines the sofa.



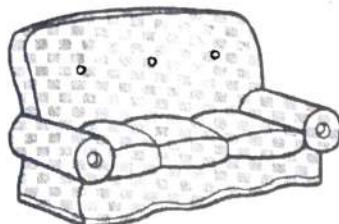
3. Add the details to complete the effect.



4. Sketch the cushions and arms on both the left and right side of the box frame. Start by sketching out a small shape about the size of a loaf bread. To draw the cushions, use the figure below as guide.

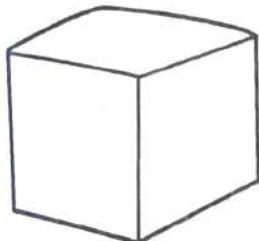


5. Draw in the key details like the checkered pattern of the sofa.

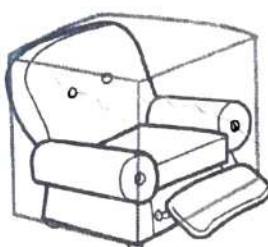


Drawing a Lounge Chair

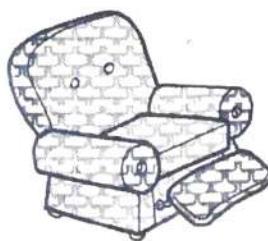
1. Sketch a square, three-dimensional box. Same as the sofa, this basic form gives definition to the chair and the space surrounding it.



2. Sketch in the cushion and add the rounded arms on both the left and right side of the box frame.



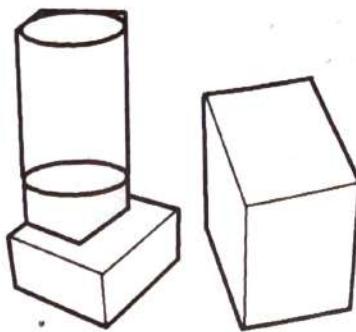
3. Add the fabric patterns and other details.



Drawing Appliances

Household appliances add details to the background when your setting is in the kitchen. Remember the following when cartooning household appliances: they have a lot of buttons and switches and they should look like a specific appliance and not generic looking. If you would like to draw a toaster, make sure it looks like a toaster and not just a box with a lever on it. Let us draw a blender and a toaster.

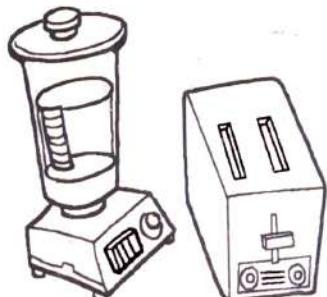
1. Sketch two square, three-dimensional boxes. Your initial sketch acts as a general guide to help you place the other important elements and details necessary to whatever particular object.



2. Sketch the details specific to the particular appliance.



3. Draw in the key details like buttons and switches. Then, add the final details to finish off the look.



One good thing about cartoons is that you can give personality to anything. You just add human characteristics to objects, including the way the object moves and how you make the object express itself by adding eyes, ears, and a big mouth. By humanizing inanimate objects, you can create a unique cartoon character with a life of its own. Let us have a few examples of these inanimate objects:

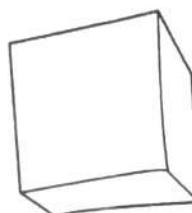
Car Character

In cartooning a car, remember the following:

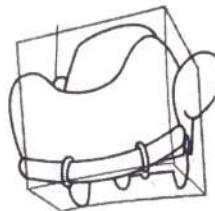
- They have exaggerated movements that mirror human movements.
- Their facial expressions and features are incorporated into the car design.
- They have a friendly, cute look that gives them human appeal.

Here are the steps to draw an animated car:

1. Sketch a large rectangular, three-dimensional box.

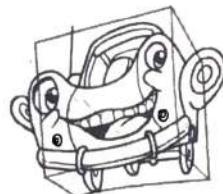


2. Sketch in more details like the area for the roof and the driver's front wheel.

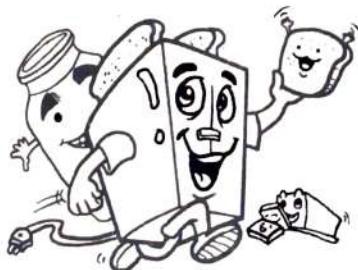


3. Draw the area for the wheels.

4. Add the facial features to replace the headlights and radiator grill.



Appliances can also be animated to add fun details to your animation. Remember when cartooning appliances, their faces are made up of buttons and switches. Their shape can be distorted or stretched to add a more animated look. It would also be more appealing if you give them human characteristics.



Drawing Animals

Animals are very popular cartoon characters that make up the cartoon world. This section will show you how to create and draw some typical cartoon animals.

Drawing a Kitten

1. Start by drawing a circle and oval to make up the kitten's body.



2. Add guide lines.



3. Place the eyes and the nose.



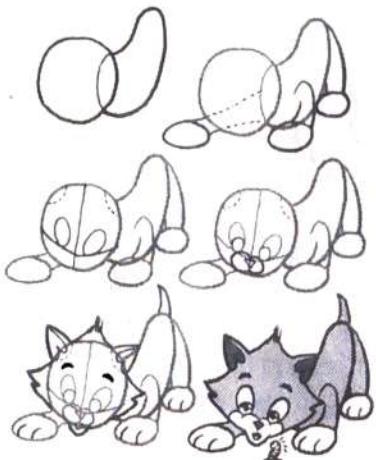
4. Build the ears and the legs.



5. Add the details to complete the kitten.



The more complex the pose is, the more steps it would take to develop.

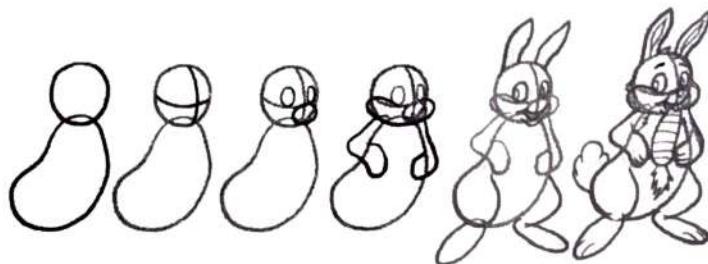


Drawing a Puppy

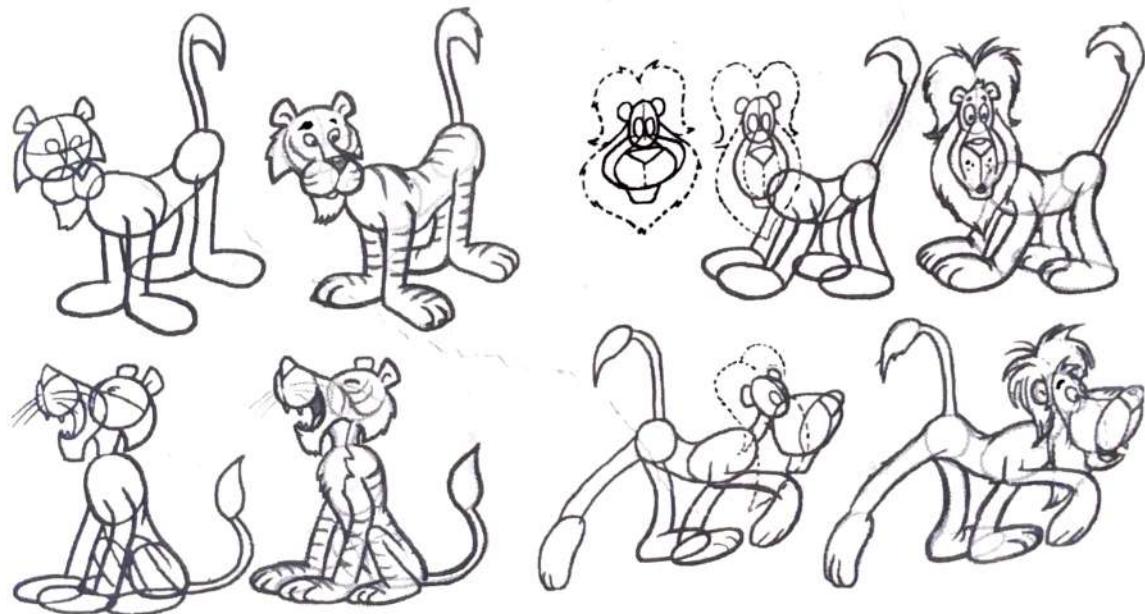
Just like the kitten, start with a basic construction of circles and ovals. Then draw guidelines to place the features.



Drawing a Rabbit



Drawing a Tiger and a Lion



You may use the drawing technique discussed to be able to make other animals that you want for your animation.

KT Key Terms

- **Human Movements** – used as guide to animate movements on objects
- **Facial Expressions** – face emotions that can be used on non-living objects

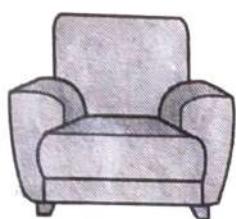
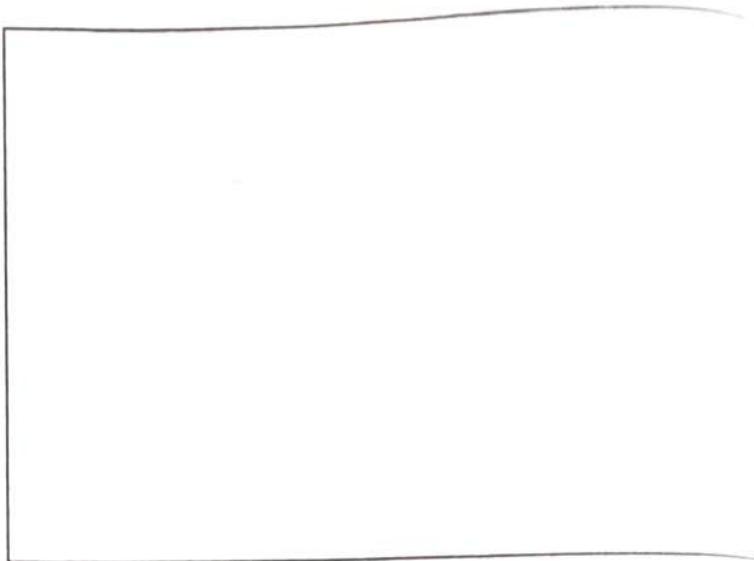
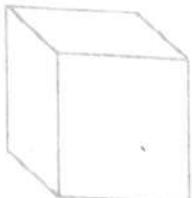
QD Questions for Discussion

1. What kind of technique did you use in creating household cartoon characters?
2. Is creating cartoon characters easier for you than realistic human figure? Why?

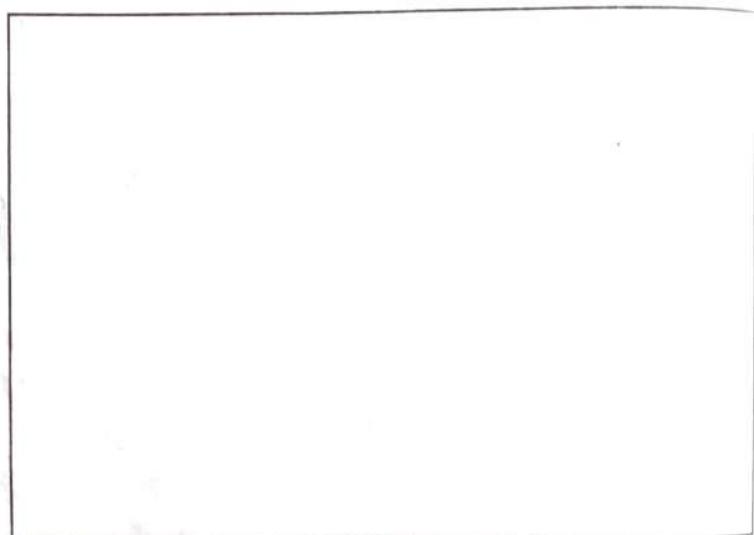
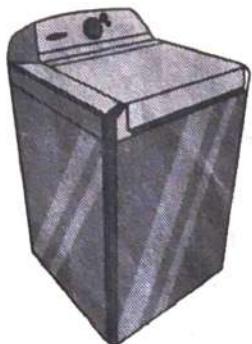
LA Learning Activity

Transform the following:

Couch Potato

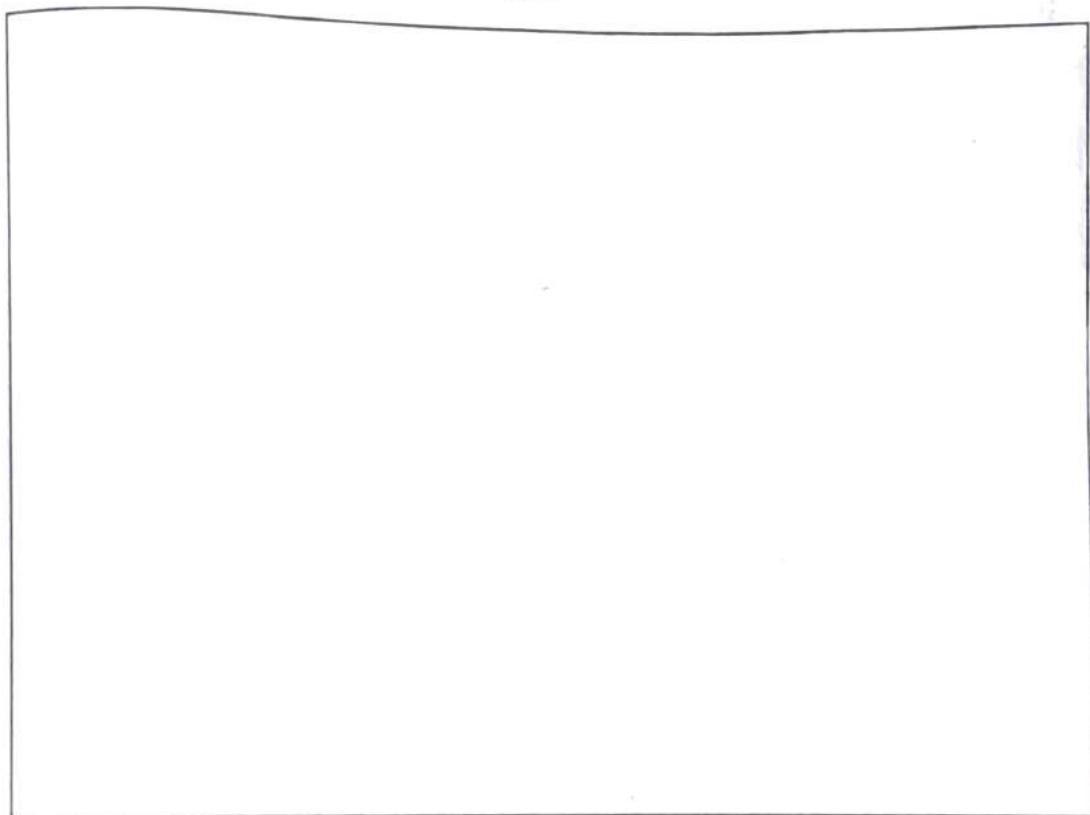


Munching machine



Think of your favorite pet. Now think of the things you love to do. Now combine them and allow your imagination to play. Once you are done, execute them below.

Example: Cat, Playing/Reading/Listening to music

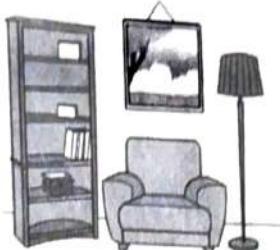


S Summary

Cartoons do not need to be realistic, so anyone and anything can be a part of your cartoon. You have learned from this lesson the steps on how to draw objects particularly some common household items like the sofa, blender, and toaster. To make the objects come to life, you may add human characteristics like eyes, ears, and nose. Aside from objects, animals are also popular characters in the cartoon world. This lesson also discussed some drawing techniques to draw common animals like the cat, dog, and rabbit.

PT Post-Test

Turn these simple furniture into cartoon characters with facial expressions. Use the space provided below.



SE Self-Evaluation

Evaluate yourself against the skills listed below. Check the option that you think is most appropriate to you.

Skills	Weak	Good	Excellent
Draw inanimate objects and add personality to it			
Make an animal using drawing techniques			
Develop own design using the techniques learned			

Lesson 16: Sketching Character Movement

- Line of Action
- Creating Animation Chart

LO Lesson Objectives

At the end of this lesson, students should be able to:

1. create rhythm charts for creating movements;
2. understand the line of action for the character; and
3. define an appropriate follow-through action.

PT Pre-Test

Use one of your characters and think of any usual movements that your character can do. For example, running. Now, as it progresses, make it more interesting and funny.



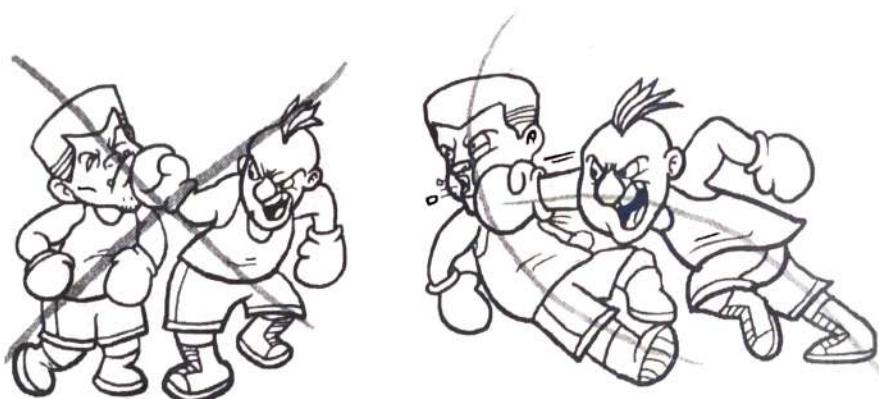
Lesson Discussion

Once you have completed your character, you must consider the types of actions that are appropriate for it. The movements of the character convey a message to the viewer about its actions and intended actions. One way to do this is by using the line of action that is the basis of rhythm, simplicity, and directness.

In this lesson, we will create an animation cycle. An *animation cycle* is a series of drawings that brings the character through a complete movement. For example, a character that is walking will need to have an animation cycle for each of the steps. There should be a complete cycle for continuous animated movement including the body attitudes for such movements like walking, running, or dancing.

Line of Action

To draw appropriate movements, you must first draw an imaginary line extending through the main action of the character. After drawing the line of action, plan your character and its details. This method will strengthen the effect of action of your character. Below is an example on setting the correct line of action.



The correct lines of action will fit on the action you want to communicate with your audience.



wrong

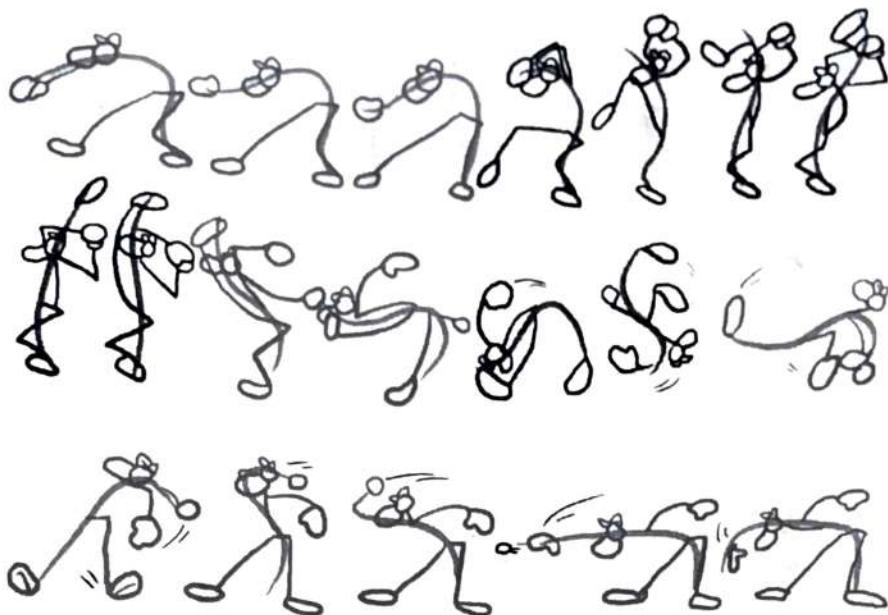
correct



wrong

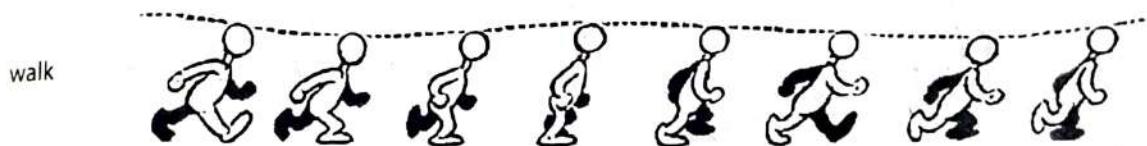
correct

This line of action is the basis for rhythm simplicity and directness in animation. Just like the proportioning technique discussed on the previous lesson, you will use the same method but make several to establish the line of action.



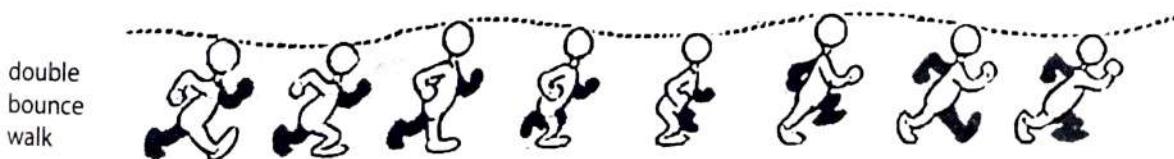
Creating Animation Chart

Drawings are made of key positions that create the effect of action. For example, in animating a walk, there are key poses that you first need to define.

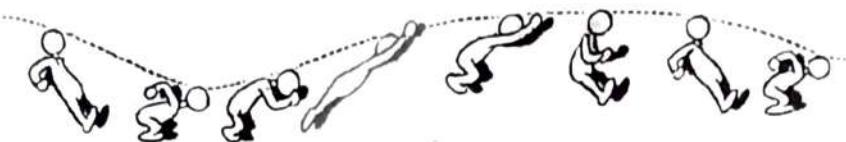


Make sure to animate all the connected parts of the character. Hands and feet should be proportioned to the body.

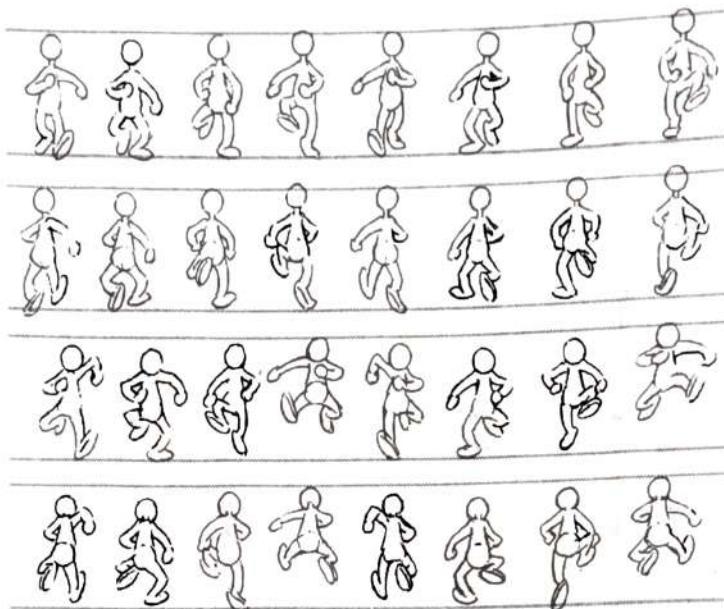
For the half-cycle, you can already draw the half of the action including the hands, arms, legs, and feet. It can then be switched from side to side, which eventually completes the action without redrawing all the body and head positions.



For the jump, the arms are flung up to suddenly create momentum.



All actions take on different characteristics. You may use the guides below to animate your character from the front and rear view.

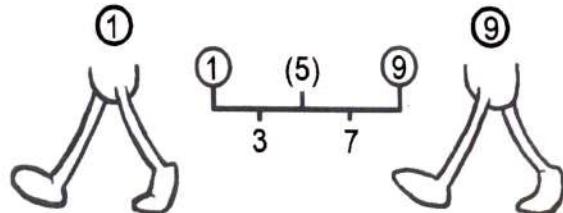


Key poses for walk and run are different. Make sure to identify them appropriately. A run should relay speed compared to a walk.

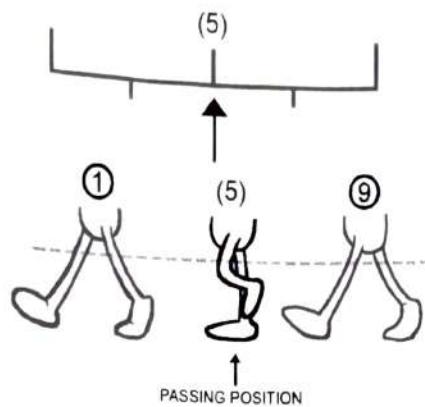


The gap of your character's feet defines speed. The bigger the gap, the more it shows the action that will take place.

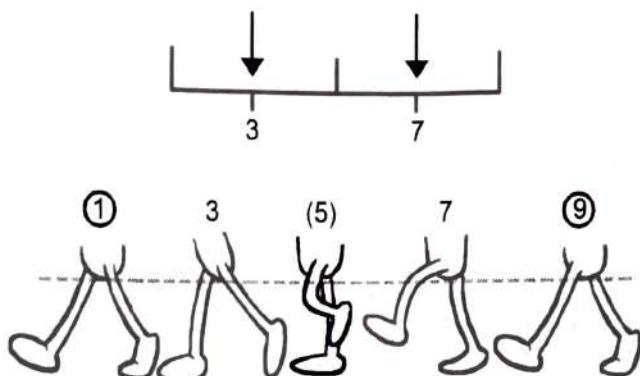
Basically, to animate a walk requires two key positions and in-betweening them in a logical way. The head, arms, body, and legs must move independently. The secret is to break down the action into sections to make it simple. The main action in a walk stems from the legs and the lower body so starting with it would be logical. A walk is a continuous series of steps. Let us say below are our key positions for a one-step action.



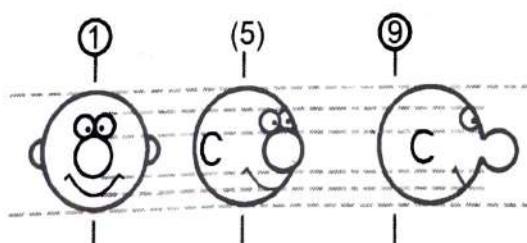
To make the right foot move forward from drawing 1 to drawing 9, we will use 3 in-betweens. In-betweening are the drawings in between the key positions. In a studio, in-betweening is usually done by an assistant. The fundamental requirement of in-betweening is accuracy. To know how many in-betweens are needed, the animator must draw a chart as shown above. Drawing (5) is indicated in parenthesis because it is the first in-between to be done between 1 and 9, which are the key drawings and are circled. It is called the *breakdown drawing*. But with walks, it is called *passing position*.



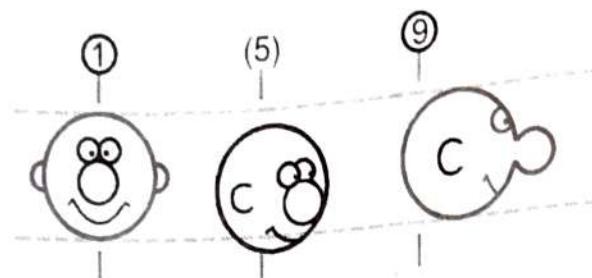
After the breakdown is completed, next to put in are the two in-between drawings: drawing 3 in the middle of 1 and (5), and drawing 7 in the middle of (5) and 9.



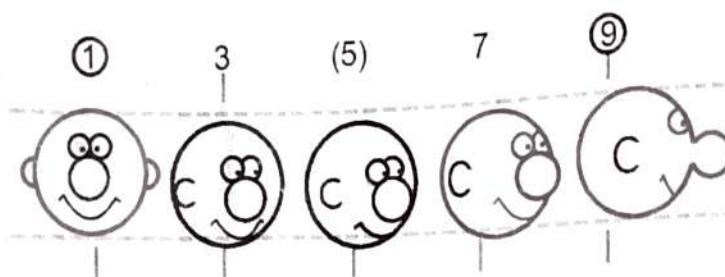
Take note that the height of the two in-between body positions falls naturally between the extremes and the passing position. Now, let us try the head turn. When animating, remember that everything that moves in life, moves in arcs. This is true of everything except a machine, which is mechanical by nature.



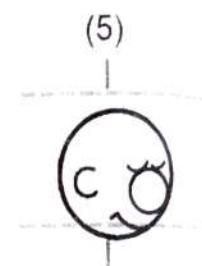
A straight in-between will cause the features of the face to slide across the head, make the action look mechanical. To avoid this and to make the action appear more realistic, the breakdown must be placed on an arc. If you look at the mirror and observe how you turn your head, you will see that it has a slight clip in its path of action as it turns. This is the breakdown that has to be imitated in the animation.



For a smooth action, you may add additional in-betweens as shown below.



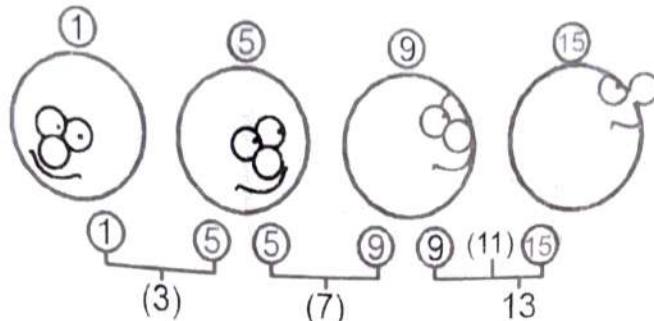
It is essential that you feel the character's movements in your own body before you begin to animate the character. Just like when actors feel their way into a part before playing the role. The greater your imagination, the greater is the potential for producing realistic animation. By this, you may notice that the eyes either blink fully or half-close as your head turns. In other words, your own personal breakdown position should have an eye change. You may look at yourself in the mirror and see how your eyes blink.



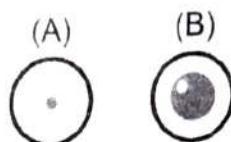
As an addition, it would be essential to have the pupil of the eye to move on an arc. The movement of the pupil should be:



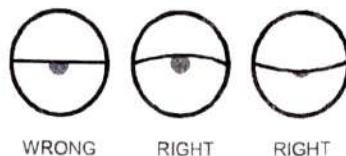
When the character is moving and looking in one direction, the eyes should lead the direction of the head as early in the action as possible.



Keep in mind that if the pupil in the eye is very small, it gives a dazed, weak, unconvincing look to the character's expression. On the other hand, if it is large, it gives the impression of receptivity and interest.



If you are drawing blinking eyes, never draw a straight line in mid-position for the breakdown. Either make it curve upward just above the centerline or make it curve downward just below.



The other techniques in animation will be discussed in detail in the next lessons.

KT Key Terms

- **In-Betweening** – drawing the movements in between key positions
- **Breakdown Drawing** – drawing the key positions of a character or object
- **Passing Position** – the in-between drawings in a walk animation

QD Questions for Discussion

1. Why is it important to base the in-between drawings from the key drawings?
2. Does planning line of action for your character important? Why?
3. How do you think an animation chart can help you?

LA Learning Activity

Use your own character. Fill in the missing in-between. Break down the drawing to complete the action sequence.

Activity A

A large, empty rectangular frame occupies most of the page below the first set of figures. It is intended for the student to draw the missing in-between frames to complete the action sequence shown above it.

Activity B

A large, empty rectangular frame occupies most of the page below the second set of figures. It is intended for the student to draw the missing in-between frames to complete the action sequence shown above it.

S Summary

This lesson discussed the animator's task to make an animation chart for the assistant who will make the in-between drawings. In-between drawings are important that a bad in-betweening may turn a potentially excellent piece of smooth animation into a big mess. A chart and breakdown are made to guide the assistant for the breakdown drawings. You have also learned that animations use arcs for a more realistic action. To animate the walk, the head, arms, body, and legs must move independently. The secret is to break down the action into sections to make it simpler. Start with the lower body then the rest follows through.

PT Post-Test

Use one of your characters, and think of any usual movements that your character can do. For example, running. Now, as it progresses, make it more interesting and funny.

SE

Self-Evaluation

Evaluate yourself against the skills listed below. Check the option that you think is most appropriate to you.

Skills	Weak	Good	Excellent
Determine the key positions of an animation			
Understand the in-between drawings basing from the key drawings			
Use the arc techniques in drawing a more realistic action			

Lesson 17: Animate Using Traditional Animation

- Scene Timing
- Process to Animate in a Traditional Way

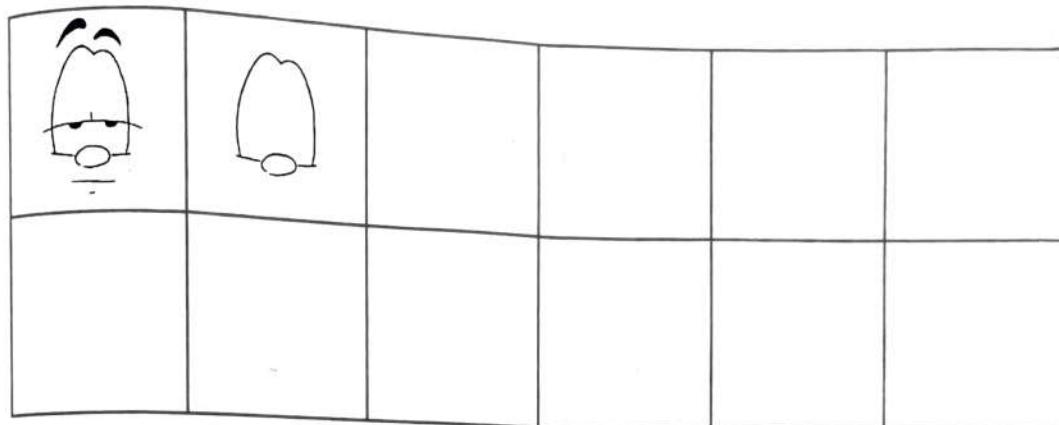
LO Lesson Objectives

At the end of this lesson, students should be able to:

1. create an animation using traditional method;
2. understand correct timing for character actions; and
3. combine character and background panning.

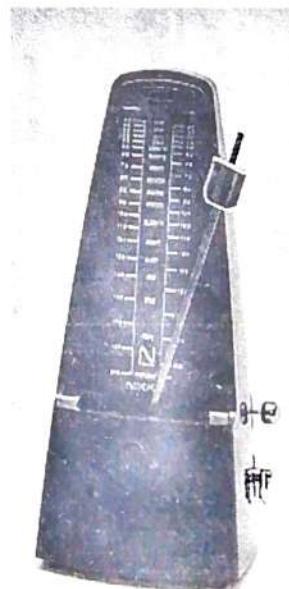
PT Pre-Test

Use the given pattern below and draw the sequence of eyes that are about to fall asleep.

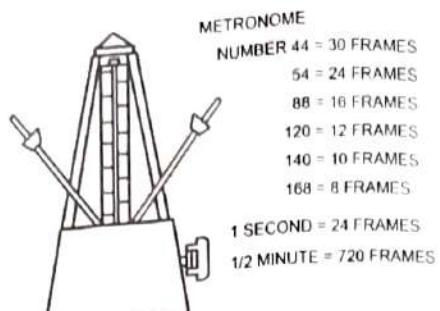


LD Lesson Discussion

Now that you know how to create our character and draw its appropriate actions, we can already start the actual animating process. The storyboard and script are the foundations for the rest of the animation. The animator is the actor of the film cartoon. The timing is important. Some animators use a device called a metronome to determine the correct timing.



The metronome counts the tick needed to be converted into frames in an animation software.

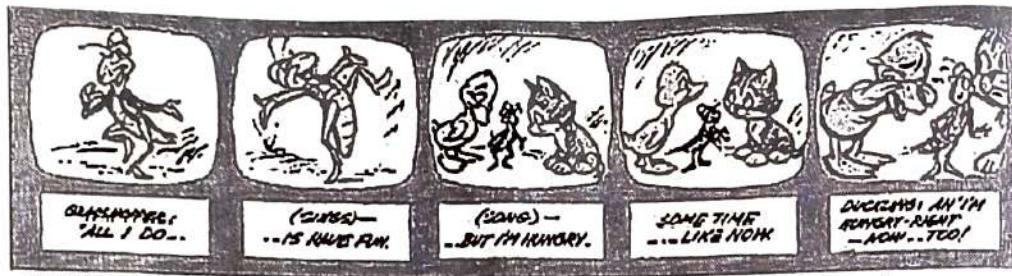


Scene Timing

The storyboard and script are like a blueprint and the film is constructed on these foundations. Each scene is described in the script for picture and sound. The scene title should describe the character, the sound and the type as close-up, long shot, or medium shot. The *Exposure Sheets* or *X Sheets* plan the animation production timing of an individual scene. Each frame, music beat, word sound, and timing detail also has a number.



TV bar sheets have one foot (16 frames) per bar. Dialog and music are planned in these bar sheets with a stopwatch. Music is then composed and recorded with dialog and the scene timing may have to be adjusted to fit. Adjustments and changes are constant in animated films.



PRODUCTION #38 - THE LOST KITTEN

VIDEO	AUDIO	734 'LOST KITTEN'	GRASSHOPPER SINGS SONG
SCENE 3. CLOSE-UP GRASSHOPPER Grasshopper sings to off-stage Kitten and Duckling with flowerist and spirit. Jumps for joy. (CUT TO)	SONG - MUSIC GRASSHOPPER SINGS (singing)	GRASSHOPPER MUSICAL RHYTHM	GRASSHOPPER LIVE AT THEATRE
SCENE 4. LONG SHOT - GRASSHOPPER DUCKLING AND KITTEN Duckling and Kitten look at Grasshopper who becomes subdued and serious as he laments in song. Kitten and Duckling look sadly at each other. (THICK DWN TO)	SONG - MUSIC GRASSHOPPER SINGS (the blues) ...but I'm hungry... ...some time like now.	DUCKLING KITTEN	KITTEN LIVE AT THEATRE
SCENE 5. MEDIUM SHOT - DUCKLING & GRASSHOPPER TWO HEAD OF KITTEN Duckling sadly gulps, speaks, and then sheds a tear... wipes eye with wing Grasshopper turns to Kitten..shakes his head in agreement with Duckling.	SAD MUSIC DUCKLING (filling speech) ...An' I'm hungry... right now...gulp...too. I ran away from... my MEAN step-mother... an' now... (sobs)	DUCKLING KITTEN	KITTEN LIVE AT THEATRE

When you animate a walk, the background should also move on a precise distance as required by the action. For example, the background would be moved more slowly for a walk than for a run. Never move a character without meaning. Try to bring out a gesture or mannerism in every cycle. Below are processes to animate in a traditional way. This may help lessen the time of producing the animation.

Planned Animation combines animation methods and the artwork can be planned to be reused on many different scenes. It may combine cycle animation and limited animation. So the production is developed faster than usual as the term says to plan your film.

Cycle Animation is a repeated series of drawings that can be used several times on a film. Grass swaying in the wind, waves on the shore, or even walking is rhythmic cyclic action, which can be repeated over and over again.

Limited Animation is a process where reusing of animated frames, mirroring of characters, and drawing new frames only when necessary are done to cut down the work, save time, and reduce the budget. The dialog, for example, can be divided into several expressions and drawn on a different cel. This will just be combined with the body drawing. The cutout parts are called *animated cutouts*.

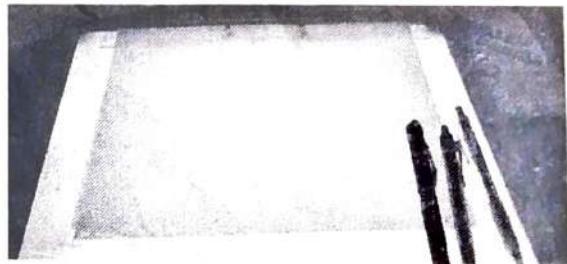
Animated cutouts are cost effective in producing a traditional animation. Body poses with different heads can be used over and over in multiple combinations. For example, different arms can be used on the same body together with the eyes, mouth, and nose.



Each character is drawn on a cel and if cutouts are needed, they are drawn on a separate cel. The background should also be drawn on a separate paper or cel where the characters are just joined in for camera shoot.

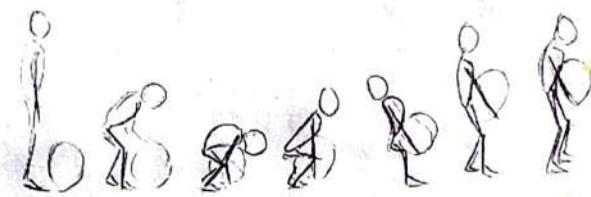
First, you need to prepare all the materials needed and place them all within your reach.

- Tracing Papers (72 gsm)
- Scratch Papers
- Mechanical Pencils (0.5 and 0.7)
- Colored Pencil Leads (Blue and Red)
- Fine point Markers (0.4)
- Eraser
- Light Box

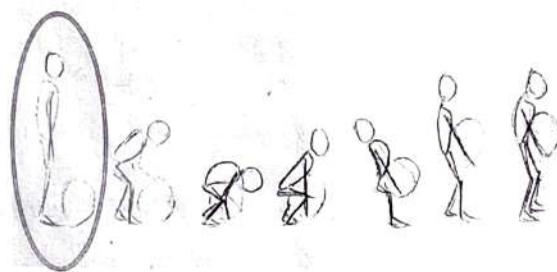


Think of any simple action that you want your character to do. Examples: walking, jumping, picking up an object, eating/munching, eyes that are starting to fall asleep, etc. Once you are done, you may start thinking about the sequence. Note: The longer the sequence, the smoother the action flow.

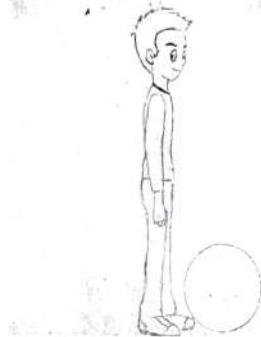
You may begin with a rough sketch of your character on scratch paper, focus on the transition of pose per frame. See the image below.



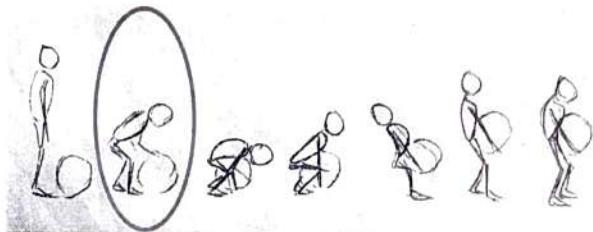
Now begin sketching the first pose on the first frame. See image below.



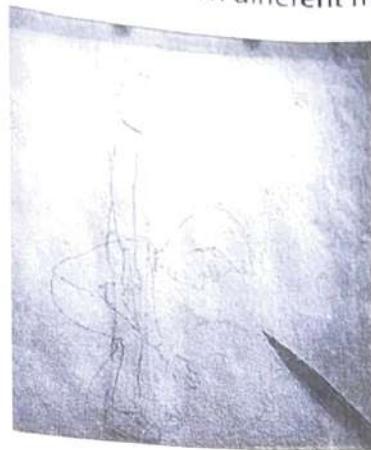
First Frame



Second Frame



You can use different lead color as you draw on different frames.



Third Frame

Make sure that the size of the body of your character is equal.



Fourth Frame

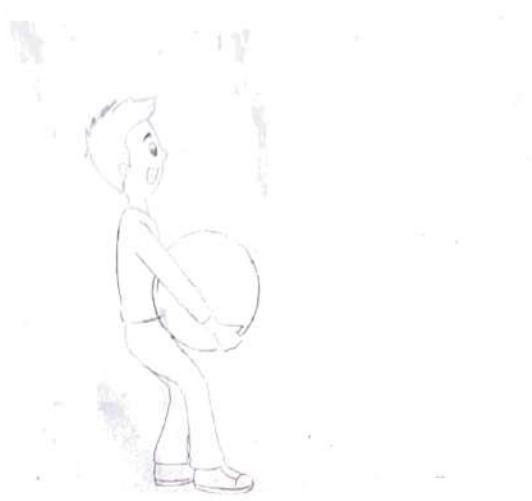
You can play with the facial expression as you sketch your character; make his/her facial expressions a bit exaggerated.



Fifth Frame



Sixth Frame



Seventh Frame



Then you should have the same output as shown below.



The animation method discussed depended on cels in its final stages. Painted cels are hard to find today as the computer moves into the animation studio. These days, sketches are just scanned into the computer and cleaned-up digitally instead of being transferred to cels and colored by hand. Though animation now is commonly done with computers, most studios still use traditional animation to start with and use computer on the latter process. This hybrid method where parts of an animation are produced using traditional styles then completed or enhanced using digital methods are tagged "tradigital animation" by Mr. Jeffrey Katzenberg, an executive in Dreamworks.

On our next lesson, we will learn to combine the skills learned in traditional to computer software.

KT Key Terms

- **Metronome** – counts the tick needed to be converted into frames in animation software
- **Planned Animation** – combines animation methods and the artwork can be planned to be reused in many different scenes
- **Limited Animation** – a process where reusing of animated frames, mirroring of characters, and drawing new frames, only when necessary, are done to cut down the work, save time, and reduce the budget
- **Cycle Animation** – a repeated series of drawings that can be used several times on a film

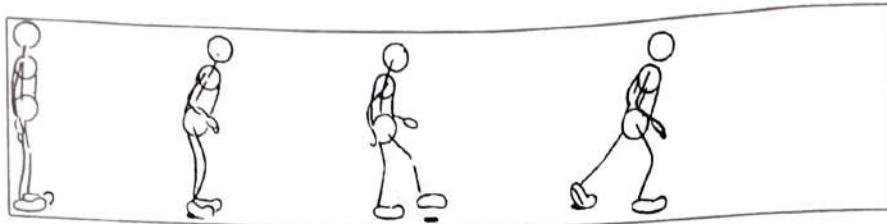
QD Questions for Discussion

1. How important is the proper timing in animating characters or objects?
2. What type of animation process do you think is faster? Why?
3. What big change did a "tradigital animation" give to the entire animation process?

LA Learning Activity

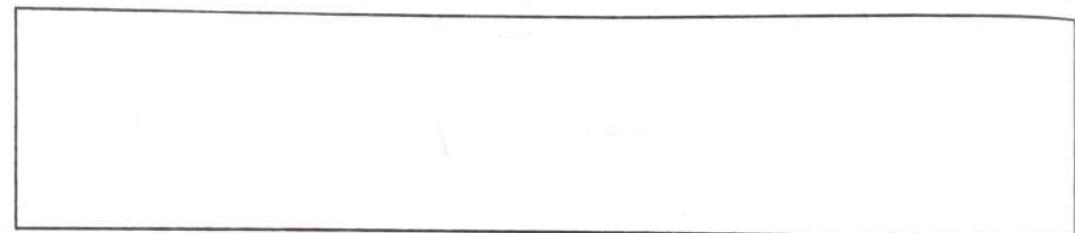
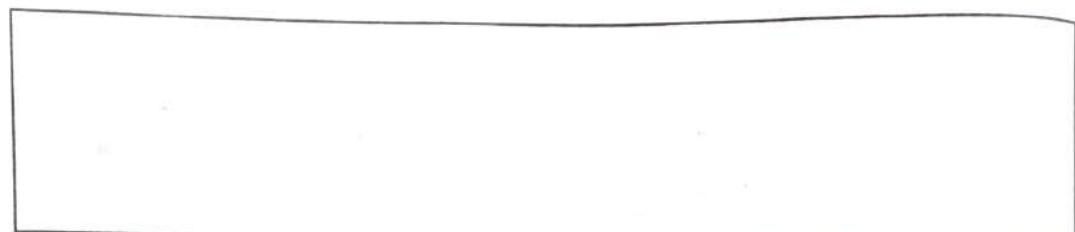
Draw the missing in-between frame on the first box.

Set A



Set B

Use the last image on Set A and turn the action from walking to running. You may use the same number of frames or more.



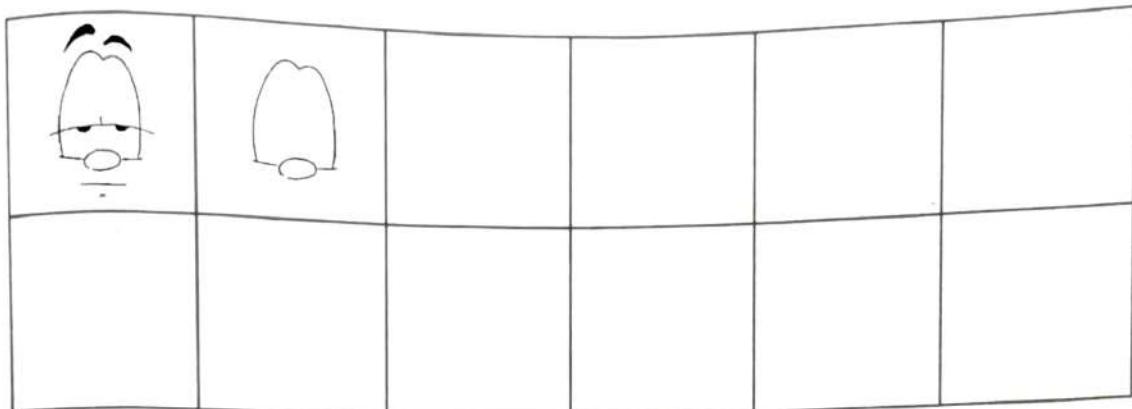
S Summary

Timing is based on instinct and personality. It is important that you are able to learn the craft, such as how to walk or move with meaning, to never pause or pause if there is a need. The swings and ticks of a metronome can help determine the exact speed of the frames of a walk, run, or any action you visualize. You may also make the traditional animation process faster by using techniques like limited animation and cycle animation. Animation cutouts also help the animator so that he/she does not need to redraw the entire character or object.

These days, sketches are just scanned into the computer and cleaned up digitally instead of being transferred to cels and colored by hand. This hybrid method where parts of an animation are produced using traditional styles then completed or enhanced using digital methods are tagged "tradigital animation."

PT Post-Test

Use the given pattern below and draw the sequence of eyes that are about to fall asleep.



SE Self-Evaluation

Evaluate yourself against the skills listed below. Check the option that you think is most appropriate to you.

Skills	Weak	Good	Excellent
Master the perfect timing for the actions			
Create a simple animation using traditional method			
Make use of proper correct main pose in traditional animation			

