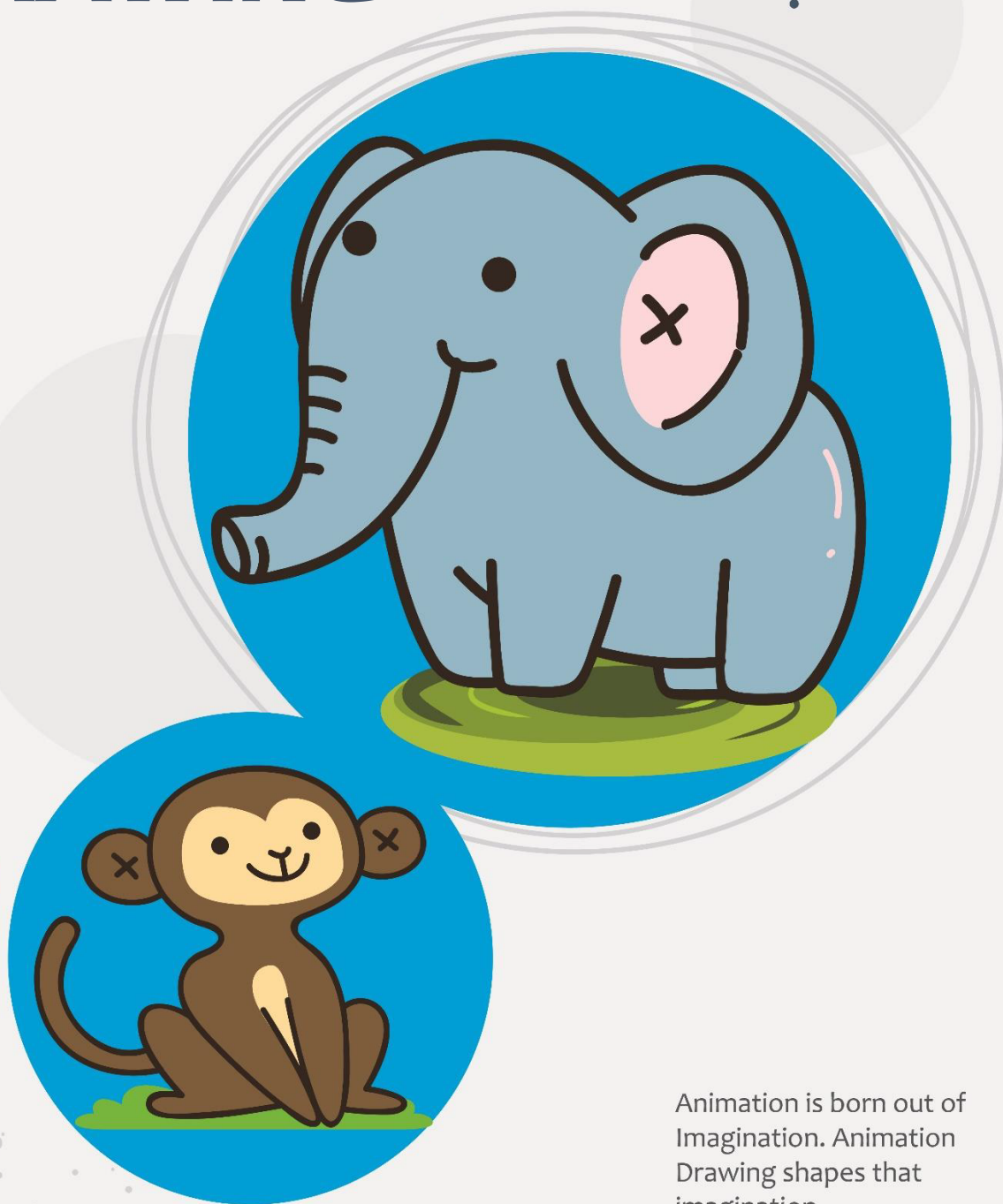Susmita Dey & Subhojyoti Roychowdhury's

BASICS OF
CARTOON
DRAWING

Animation is born out of Imagination. Animation Drawing shapes that imagination.

BASICS OF CARTOON DRAWING

VOLUME 1
INSIGHT INTO CHARACTER DESIGNING

Susmita Dey
&
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BASICS OF CARTOON DRAWING

VOLUME 1
INSIGHT INTO CHARACTER DESIGNING

By
Susmita Dey & Subhojyoti Roychowdhury

Content

I
INTRODUCTION TO CARTOON ANIMATION

Animation is basically an optical illusion that creates motion. Animation films are mainly driven by cartoon characters that add fun and humour which makes the films a treat to watch. Cartoon is basically a type of character drawing where the character shows the features and characteristics in a humorously exaggerated way. These kind of character looks funny and humorous like Tom and Jerry.

Fig. 1 Tom and Jerry

The use of Cartoons in Animation films came to be used as early as 1908 when Émile Cohl, the French cartoonist and animator, came out with "Fantasmagorie". He is also referred to as "the father of the animated car- toon".

It so happened that in 1907 the 50-year-old Emile Cohl was walking down the street when he spotted a poster for a movie that had clearly been stolen from one of his comic strips. He confronted the manager of the offending studio named Gaumont and Cohl was hired on the spot as a scenarist, a person who produces one-page story ideas for a movie. In Gaumont studio Emile Cohl created "Fantasmagorie", the first fully animated film ever made.
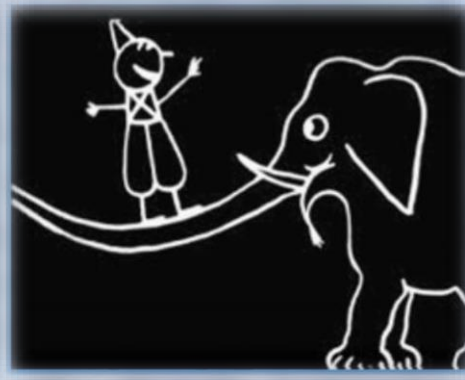
Fig. 2 A scene of "Fantasmagorie"

The evolution of Cartoon Animation was further extended by Winsor McCay through his 1914 film Gertie the Dinosaur. It featured an early example of character development through hand drawn animation. An interesting fact is that it was also the first film to combine live-action footage with animation. Originally, McCay used the film in his vaudeville act: he would stand next to the screenland speak to Gertie who would respond with a series of gestures. At the end of the film McCay would walk behind the projection screen, seamlessly being

Fig. 3 A scene of "Gertie the Dinosaur"

replaced with a pre-recorded image of himself entering the screen, getting on the cartoon dinosaur's back and riding out of frame. McCay personally hand-drew almost every one of the thousands of drawings for his films.

Gradually Cartoon animation started to be done digitally using 2D animation soft wares. The Computer Ballet in 1965 became the first

human figure being used in computer animation, while The Stick Man in 1967 was the first motion capture animation. These films were made as breakthroughs through experimental works. However, in 1973, the film West world became the first feature film to use digital animation.

Today we have many animation software being used in the animation industry. Adobe Animate, Adobe Character Animator and Toon Boom Harmony are some of the popular options available for 2D Animators. We have vector designing soft wares like Adobe Illustrator which can be used for designing the characters. While for 3D animators Autodesk Maya, Blender, Unity, Cinema 4D and Houdini are commonly used soft wares.

In addition to these soft wares we have certain online animation tools which are widely used like Visme and Canva. The future of Cartoon Animation is going to take a new shape and dimension using the Artificial Intelligence based applications. If we augment our creative skill, the application of technology is going to shape up the Animation in a smart and flexible way.

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A cartoon character is a type of visual art that is typically drawn, frequently animated, in an unrealistic or semi-realistic style. The specific meaning has evolved over time, but the modern usage usually refers to either: an image or series of images intended for satire, caricature, or humour; or a motion picture that relies on a sequence of illustrations for its animation. A Cartoon character can be classified as:

a. **Realistic Character**

   Realistic Characters live in places that could be or are real. The characters seem like real people with real issues solved in a realistic way. The events portrayed in realistic fiction conjure questions that a reader could face in everyday life.

Fig. 4 Example of Realistic Character made in 3D Modelling Software

b. **Semi-realistic Characters**

   Semi realism is an art form that seeks to combine realistic and stylized depictions of a living being or scene. Examples of Semi realistic characters are characters based on concept art and stylized characters like Manga Characters.

Fig. 5 Example of Semi - realistic Character – Cinderella

c. **Anthropomorphic characters**

Anthropomorphic characters are characters attributed with human traits, emotions, or intentions to non-human entities. It is considered to be an innate tendency of human psychology.

Both have ancient roots as storytelling and artistic devices, and most cultures have traditional fables with anthropomorphized animals as characters. All of the characters in Walt Disney Animation Studios', like Zootopia (2016) are examples of anthropomorphic characters, that is used in animation films.

The Anthropomorphic traits in characters are basically focused on:
1.Human like movements
2.Human Expressions
3.Using Human language to communicate
4.Walking on two legs
5.Wearing clothes
6.Using technology

Fig. 6 Example of Anthropomorphic characters - Yogi the bear

***

To create characters with certain characteristics we firstly need to study a real life character resembling such a character. We must observe:

1. The features of the character, like a Tiger has roundish face, sturdy, short and powerful legs, a long flexible tail and black striped body.
2. The behavior and mannerism of the character, like a Tiger moves slowly. And gently while at rest but runs pretty fast and ferociously when it is on attack.
3. The expression of the character, like a Tiger expresses a serious and angry look. The features, behavior and expressions are related to age of the creature. It changes with age. In case of Human characters, behavior and expressions are also dependent on experiences of the character in its lifetime. Expressions are however also shaped up by mood of the character. The amalgamation of the behavior and expression shapes up Personality of human characters.

Cartoon characters are mostly based on Human characters and Anthropomorphic characters or characters having human traits, emotions, or intentions to non-human entities.

Now let us begin creating some Animal or Bird Cartoon characters by first studying the realistic characters and then making Cartoons based on the given character traits. Thereafter we may create a story based on these characters and create Animation short films based on them.

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Realistic Character's features:

Cockatoos are characterized by the prominent crests and curved bills. Their plumage is mainly white, grey or black and often with colored features in the crest, cheeks or tail.
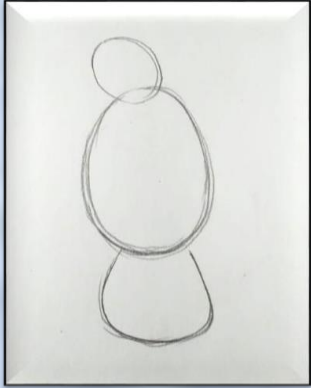

Reference image for Cartoon character MS. MATT, a COCKATOO

Character Sketch:
1.Talkative
2.Crooked
3.Greedy
4.Middle aged
5.She likes to discuss about people and acts snobbishly.

Guiding steps of making Ms. Matt cartoon character are as follows –

Step 1	Step 2	Step 3
First the basic shapes are used to draw the structure of the character.	Next the details including the subsidiary parts of the bird and the detailed curvature of the muscles and wings of the Cockatoo are drawn.	Then add the Expressions according to the character traits of Ms. Matt, the Cockatoo.

As per the character sketch the talkative feature and its liking to discuss about people will be dealt with in the animation. The crooked, greedy and snobbish character will be expressed through the expressions created through beak, eyes, eyeball and eyebrow (as shown in the Step 3). Age is reflected through the body of the Cockatoo.
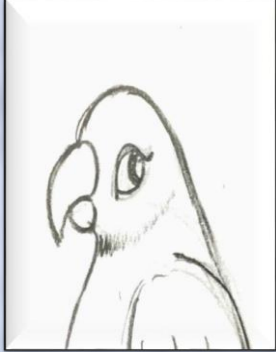

Cartoon character of MS. MATT, a COCKATOO

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PARROT

P arrots are characterized by include a strong, curved bill, an upright stance, strong legs, and clawed feet, Red Curved beak, Red band around the neck and Green feathery body with a long tail.

Reference image for Cartoon Character MIA MITHU, a Parrot

Character Sketch:
1. Angry
2. Dull
3. Rude
4. Youthful
5. She speaks softly and sweetly.

Step 1	Step 2	Step 3
First some basic shapes are used to draw the body and some curves to create the basic structure of the tail.	Next details including the subsidiary parts of the body and the detailed curvature of the muscles and wings of the Mia Mithu, the Parrot are created.	Then the Expressions according to the character traits of Mia Mithu, the Parrot are added.

The Features like angry, dull and rude are expressed through the position and look of the eyes, eyeball and the beak of the bird. Youthful is expressed through the curvature of body and the tweak of the eyelash. "She speaks softly and sweetly" has to be expressed through the animation techniques later on.

Cartoon character of MIA MITHU, a Parrot

***

Realistic Character's features:

A Cock is characterized by a Red colored Crown, small, yellow beak and colorful tail. It has a Clawed foot. They are known for their fleshy combs, lobed wattles hanging below the bill, and high-arched tails.
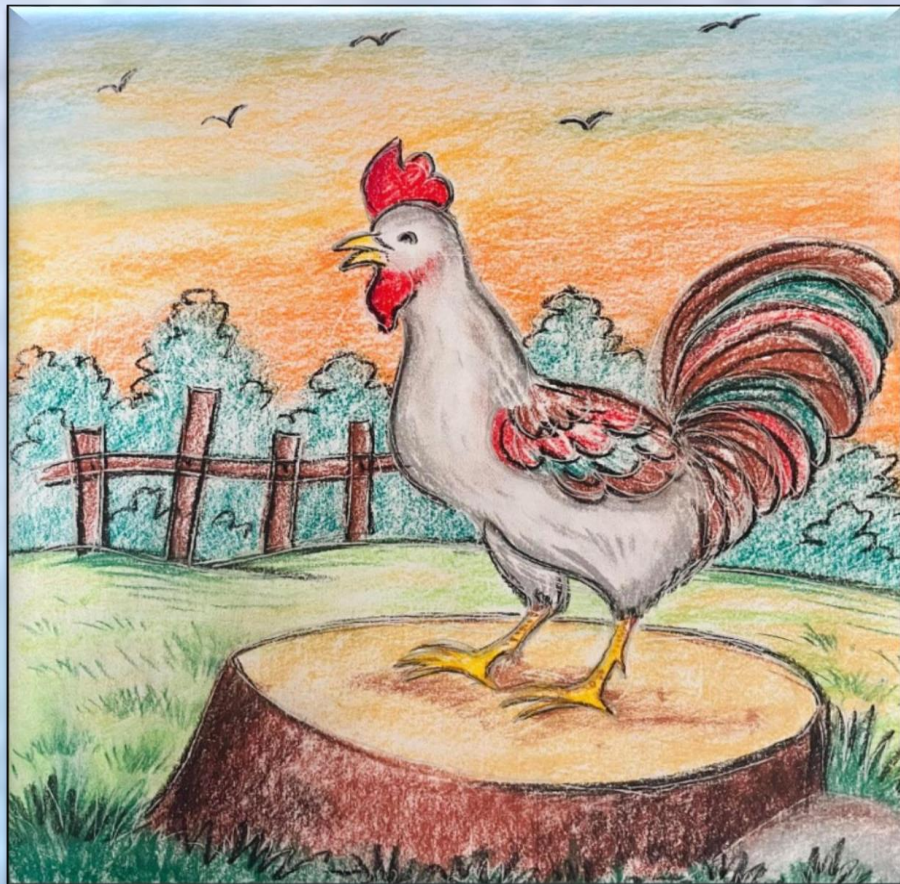
Reference image for Cartoon Character King Cock, a COCK

Character Sketch:
1. He is the King Cock, the ruler
2. Sadistic
3. Sneaky
4. Gentle
5. Old aged with experienced outlook
6. He speaks slowly and thoughtfully

Step 1	Step 2	Step 3
First some basic shapes are used to create the structure of the body and some curves are used to create the basic structure of the tail and legs.	Next add the details including the subsidiary parts of the body and the detailed curvature of the muscles and wings of theCock.	Then the Expressions are added according to the character traits of King Cock. Also a golden crown in place of the red crown of a Cockis created to establish that it is a King.

Sadistic, Sneaky experienced outlook and thoughtful attitude is expressive through the tweaking of eyebrow and the position of the

eyeball. The position of the beak is also contributing to it. The age of the Cock is established through the body of the Cock. The audio element of speaking slowly will be expressed at the time of Animation.

Cartoon character of King Cock, the Cock.
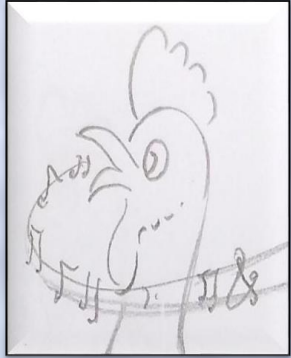
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Realistic Character's features:

A Hen is characterized by a Red colored Crown, small, yellow beak and colorful feathers. It has a Clawed foot. They are known for their fleshy combs, lobed wattles hanging below the bill. They lack the high-arched tail of a Cock.

Reference image for Cartoon Character JINGLY, the Hen

Character Sketch:
1.Music lover
2.Loves to sing
3.Dances to the tunes of what it sings
4.Young and vibrant
5.She talks in rhythmic way more often using songs.

Step 1	Step 2	Step 3
First some basic shapes and some curves are used to create the basic bodystructure of the Hen with the posture.	Next the details including the subsidiary parts of the body and the detailed curvature of the muscles and wings of the Hen along with additional motive designs to indicate the playing of the music are created.	Then the Expressions according to the character traits of Jingly, the Hen character are created to complete the character. Here it is necessary to keep an eye on the grace and rhythm of the character that is expressed by the Posture of the body.

The Musical notes used over here indicates that the Hen is a music lover, loves to sing and dances to the tunes of what it sings. Young and

vibrant is a characteristic feature that is visible through the appearance of the hen. "She talks in rhythmic way more often using songs", this will be expressed through the animation later on.

Cartoon character of Jingly, the Hen

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VIII
CRANE

Realistic Character's features:

Cranes are tall birds with long legs, necks and usually long bills. They resemble herons and egrets in body shape, but tend to have heavier bodies. Cranes are generally gray or white in color.

Reference image for Cartoon character MS. BLUNDER, the Crane

Character Sketch:
1.Sadistic
2.Sneaky
3.Gentle
4.Old aged and unstable in her steps
5.She seldom likes to interact and mumbles in her mind.

Step 1	Step 2	Step 3
First some basic shapes and some curves are used to create the basic body structure of theCrane with the posture.	Next the details of the feather of wings and tailand the other parts of theCrane are created.	Then focus is given on the expressions according to the character traits of the Crane character, Ms. Blunder.

The Sadistic, Sneaky, Gentle and Old age will be reflected by the expressions of the face and the postures of the body. The interaction of the crane and the fact that she mumbles in her mind is an aspect that is to be taken care of in Animation. The instability of the footsteps will also be shown during the Animation.

Cartoon character of Ms. Blunder, the Crane

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Realistic Character's features:
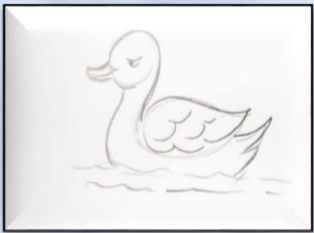
D ucks are aquatic birds which are characterized by broad, flat bills and specialized webbed feet for swimming. These water birds are smaller and they have shorter necks in comparison to their relatives.
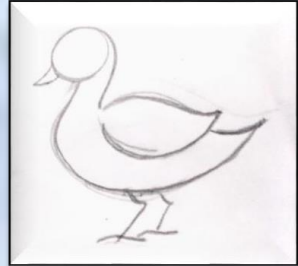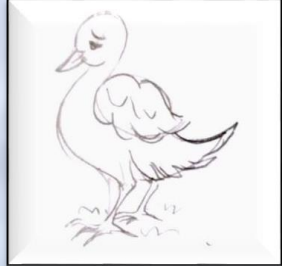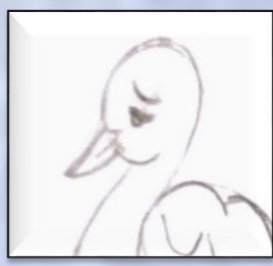

Reference image for Cartoon characters of MOMY, DOLLY, DEMI and LOOPY, a Duck family

Character Sketch:
1.Momy: Worried and lost in thoughts. Middle aged
2.Dolly: Sad and Depressed. Eldest of the three siblings.
3.Demi: Loud and energetic. The second of the three siblings.
4.Loopy: Inquisitive and explorative. Youngest of the three siblings, in its infancy.

Step 1	Step 2	Step 3

Steps of Momy

Step 1	Step 2	Step 3

Steps of Dolly

Step 1	Step 2	Step 3

Steps of Demi

Step 1	Step 2	Step 3

Steps of Loopy

For all the four Characters of Ducks And Ducklings the structure begins with a circle for the head and a few curves to define the body structure.	Next the details of the feather of wings and tail and the other parts of the Duck and ducklings are created	Then expressions are added according to the character traits through the face of the Duck and ducklings.

The individual character traits of the Duck family are well expressed through the eyes, eyeballs, eyebrows and beak. Rest of the body with its curvatures give the appearance of the age. The color of the body also expresses the age of the Ducks. The ducklings are normally of yellow color. It grows White and Brown with age.

Cartoon characters of Momy, Dolly, Demi and Loopy, a Duck family.

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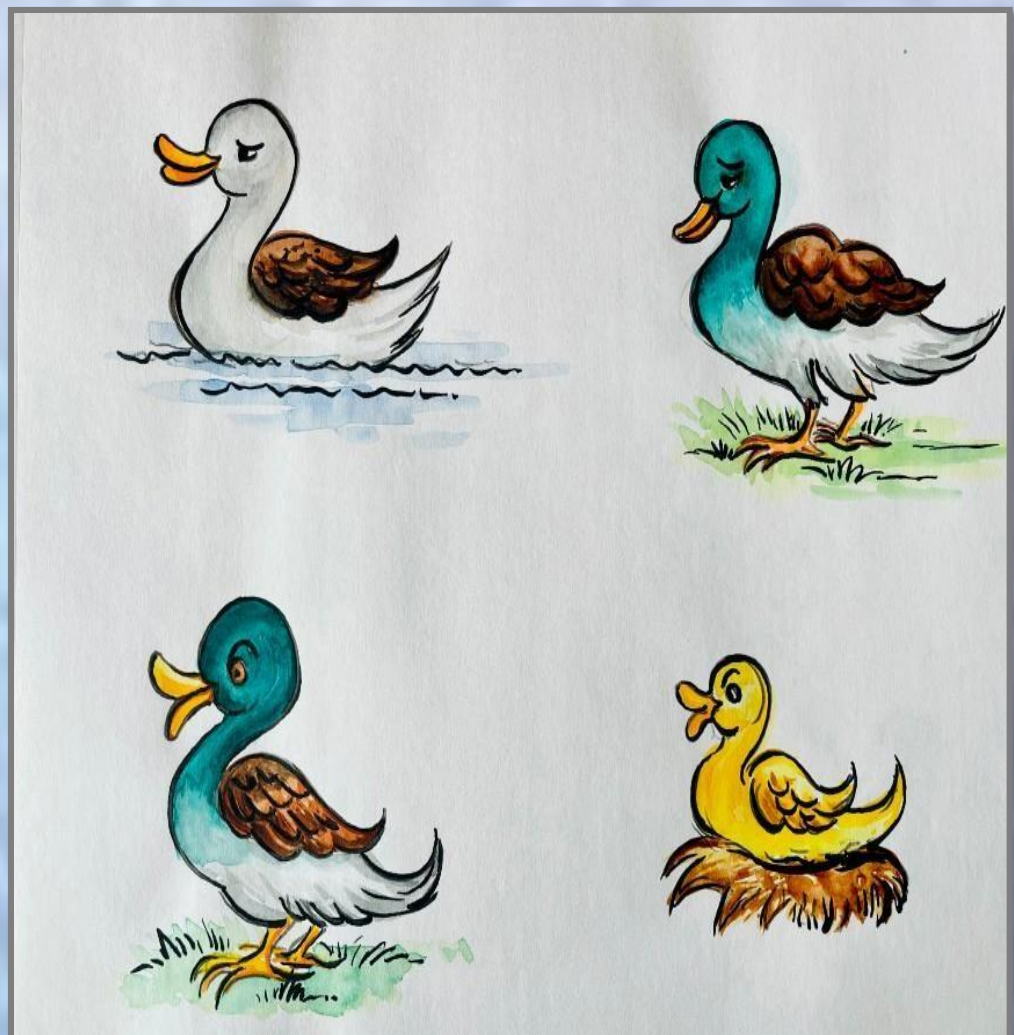
RABBIT

Realistic Character's features:

Rabbits have long ears, a short tail, long hind legs, and continuously growing incisors. Most species are gray or brown and range in size from 10 to 18 inches. They have Red Eyes and White or Grey furry body with a curled tail.

Reference image for Cartoon character HOBBIT AND HANNAH, the Rabbits

Character Sketch:
1.Musical Duo - Hobbit is a guitarist and Hannah is a singer
2.Hobbit is Fun loving
3.Hannah is cute and jolly
4.Hobbit is caring
5.Hannah loves to be pampered.
6.Both are young and graceful.

Step 1	Step 2	Step 3
First some basic shapes and some curves are used to create the basic body structure of the Rabbit with its posture and the prop (the Guitar).	Next the details of Hobbit, the Rabbit and the Props are created. Keep an eye on the posture of the body to maintain the rhythm.	Then focus is given to facial expressions according to the character traits of the Hobbit the Rabbit.

Step 1	Step 2	Step 3
First some basic shapes and some curves are used to create the basic body structure of the Rabbit with the posture and the prop (the Microphone).	Next the details of Hannah, the Rabbit and the Props are created. Here focus is to be given on gesture and posture.	Then the Facial Expressions are created according to the character traits of the Hannah the Rabbit.

Firstly, note that these Rabbit characters have more Anthropomorphic traits, they are standing and behaving like human characters. The fact that Hobbit is a guitarist and Hannah is a singer is established with the use of the props. Hobbit is Fun loving is expressed through the posture and expression. Hannah is cute and jolly is expressed through the face through the Eyes, Eyebrow and the smile. The youthful and graceful appearance is visible through the body posture of both. Hobbit is caring and Hannah loves to be pampered are behavioral characteristics which are to be expressed through acting in animation.

Cartoon character HOBBIT AND HANNAH, the Rabbits
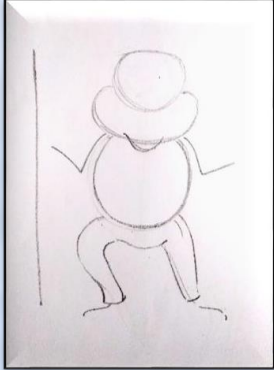
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Realistic Character's features:

S quirrels typically have slender bodies with very long very bushy tails and large eyes. In general, their fur is soft and silky, though much thicker in some species than others. They are a combination of Yellow Ochre and Brown color.
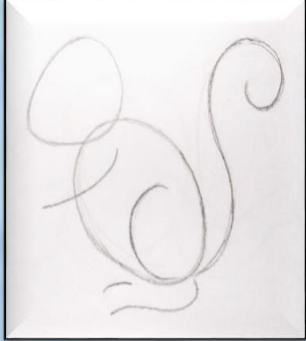

Reference image for Cartoon character ZOZO AND ZINIA, the Squirrel

Character Sketch:
1.Zozo and Zinia are brother and sister duo.
2.Zozo loves to Paint
3.Zinia loves to Study
4.Zozo is full of enthusiasm and ideas.
5.Zinia is intellectual and careful
6.Zozo is in his teenage.
7.Zinia is infant.

Step 1	Step 2	Step 3
First some basic shapes and curves are used to create the basic body structure of Zozo, the Squirrel with the posture and the prop (the Paintbrush).	Next the details of the character Zozo, the Squirrel are created along with its props (the Paint brush and the Palette).	Then the details of the expressions are created according to the character traits of Zozo the Squirrel.

Step 1	Step 2	Step 3
First the basic body structure of Zinia, the Squirrel is created using two ovals and some curves. The focus is to be given on the cuddled posture.	Next the details of the character Zinia, the Squirrel is created. Also the Prop (the Pencil) is created with details.	Then the details of the expressions according to the character traits of Zinia the Squirrel is created.

Zozo loves to Paint, this is established by the prop the Paintbrush in his hand. He is full of enthusiasm and ideas is expressed by the appearance of the character. Also visible through the appearance is his age.

While his infant sister Zinia loves to study which has been expressed by the prop, a pencil. Zinia is intellectual and careful that is expressed through the eye and lips.

Cartoon character ZOZO and ZINIA, the Squirrels
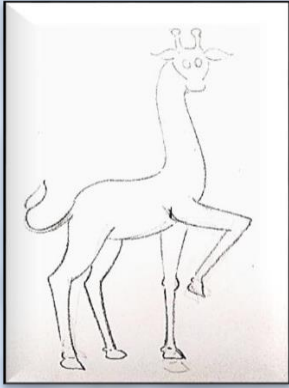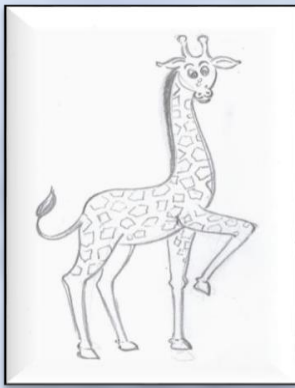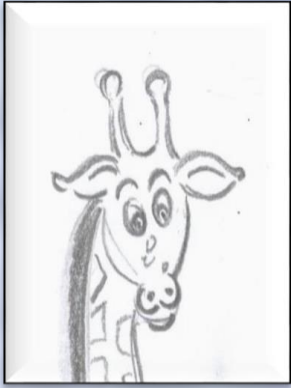
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GIRAFFE

Realistic Character's features:

Giraffes are the world's tallest mammals, thanks to their towering legs and long necks. A giraffe's legs alone are taller than many humans about 6 feet. They have Yellow colored bodies and white from knee to feet, they have brown colored irregular shaped patches all over the body.
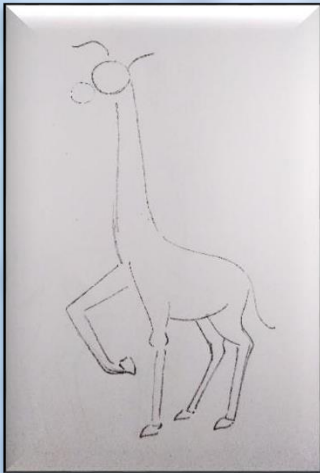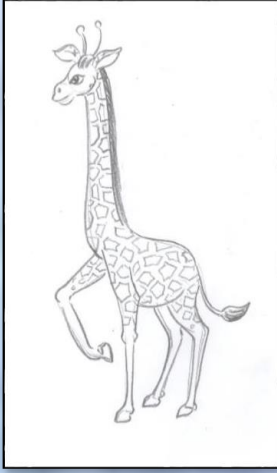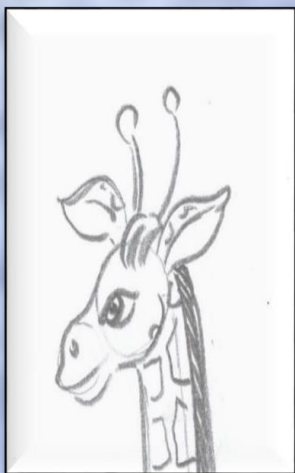

Reference image for Cartoon character JIROO and JINA, the Giraffe

Character Sketch:
1.Jiroo and Jina are young and smart and love to dance and have fun.
2.Jiroo is loving and caring.
3.Jina is compassionate but always confused.

Step 1	Step 2	Step 3
First make the basic structure of Jiroo, the Giraffe using some curves with the posture.	Next add the details of the character Jiroo, the Giraffe. Add the patches which are the characteristic feature of a Giraffe.	Then give details of the Expressions according to the character traits of Zinia the Squirrel.

Step 1	Step 2	Step 3
First make the basic structure of Jina, the Giraffe using some circles and curves. Also form the posture.	Next add the details of the character Jina, the Giraffe. Add the patches which are the characteristic feature of a Giraffe.	Then the details of the expressions as per the character traits of Zinia the Squirrel are created.

Jiroo and Jina are young and smart and they love to dance and have fun. This fact is expressed very well through the dancing posture Jiroo and Jina. Jiroo is loving and caring and Jina is compassionate but always confused. The expression is reflected through the facial expressions of the Giraffes.
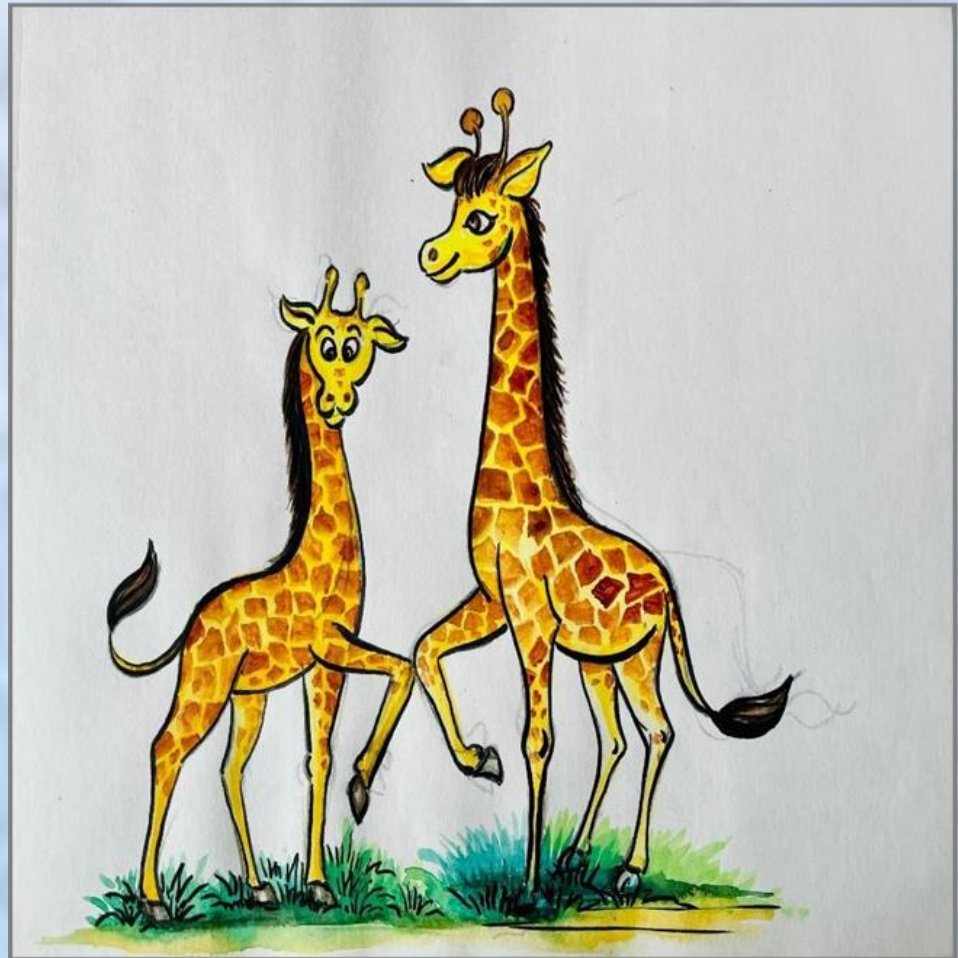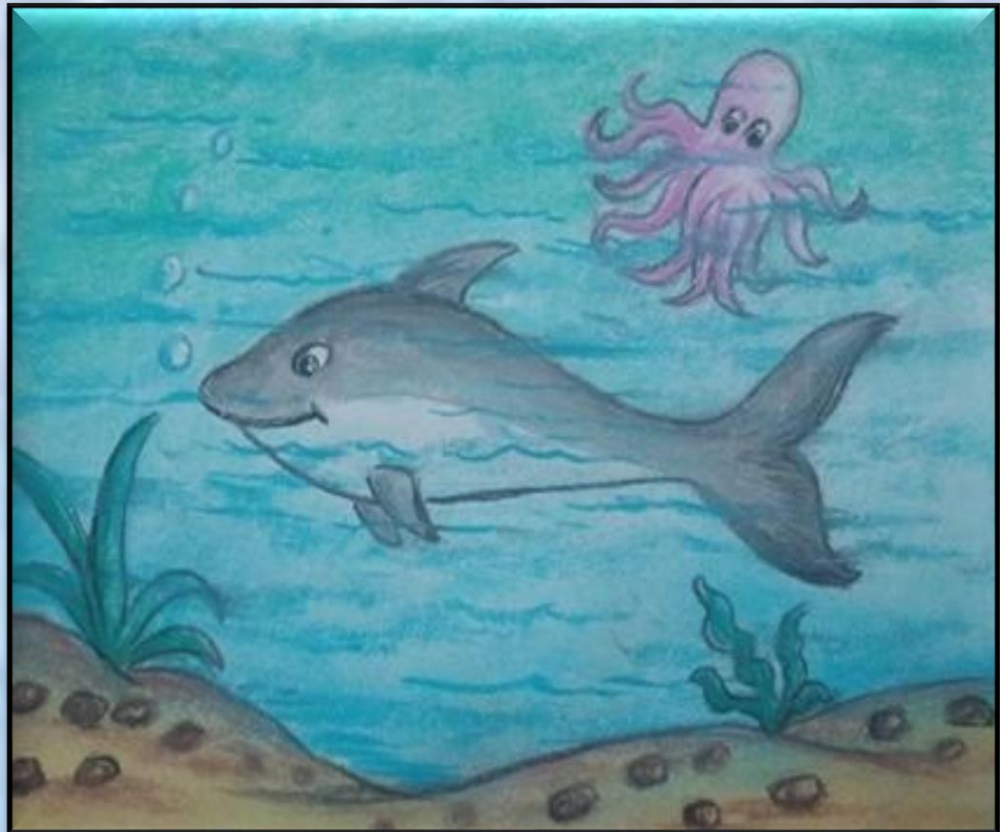

Cartoon character JIROO and JINA, the Giraff

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Realistic Character's features:

Dolphins have smooth, rubbery skin and are usually colored in some mixture of black, white, and gray. They have two flippers, or fins, on their sides, as well as a triangular fin on the back.
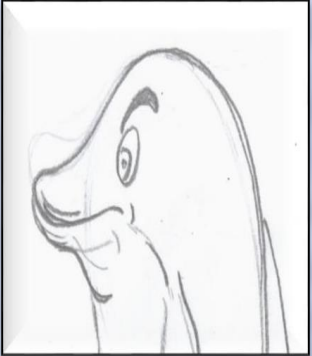

Reference image for Cartoon character SIMPOLO and POLSINA, the Dolphins

Character Sketch:
1. Simpolo gets attracted to Polsina
2. Polsina ignores Simpolo, but he never gives up.
3. Simpolo is foolish
4. Polsina is clever
5. Simpolo is sturdy, young and matured.

6.Polsina is young, smart and health conscious

Step 1	Step 2	Step 3
First the basic structure of Simpolo, the Dolphin using some ovals and curves are created. Also the posture of Simpolo is created using a line of action.	Next the details are added to the character Simpolo, the Dolphin. Focus is given on the posture of the Simpolo.	Then the details of the facial expressions according to the character traits of Simpolo, the Dolphin are created.

Simpolo gets attracted to Polsina, this is expressed through the posture and expression of Simpolo indicative through the eyes. Simpolo is foolish is expressed partially through appearance and partially through animation techniques. Simpolo is sturdy, young and matured is expressed through the appearance of the body and expression of the Dolphin.

Polsina ignores Simpolo is indicative through the posture and expression of Polsina. Polsina is clever is expressed through the facial expressions.

Polsina is young and smart is expressed through the appearance and expressions. The fact that Polsina is health conscious is indicated through the prop used (the glass of Juice).

Cartoon character SIMPOLO and POLSINA, the Dolphins

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XIV

PENGUIN

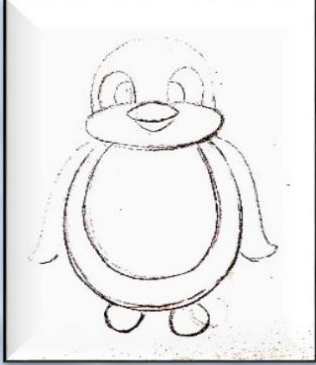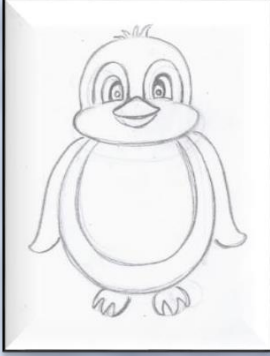**Realistic Character's features:**

They have a large head, short neck, and elongated body. Their tails are short, stiff, and wedge-shaped. Their legs and webbed feet are set far back on the body, which gives penguins their upright posture on land.
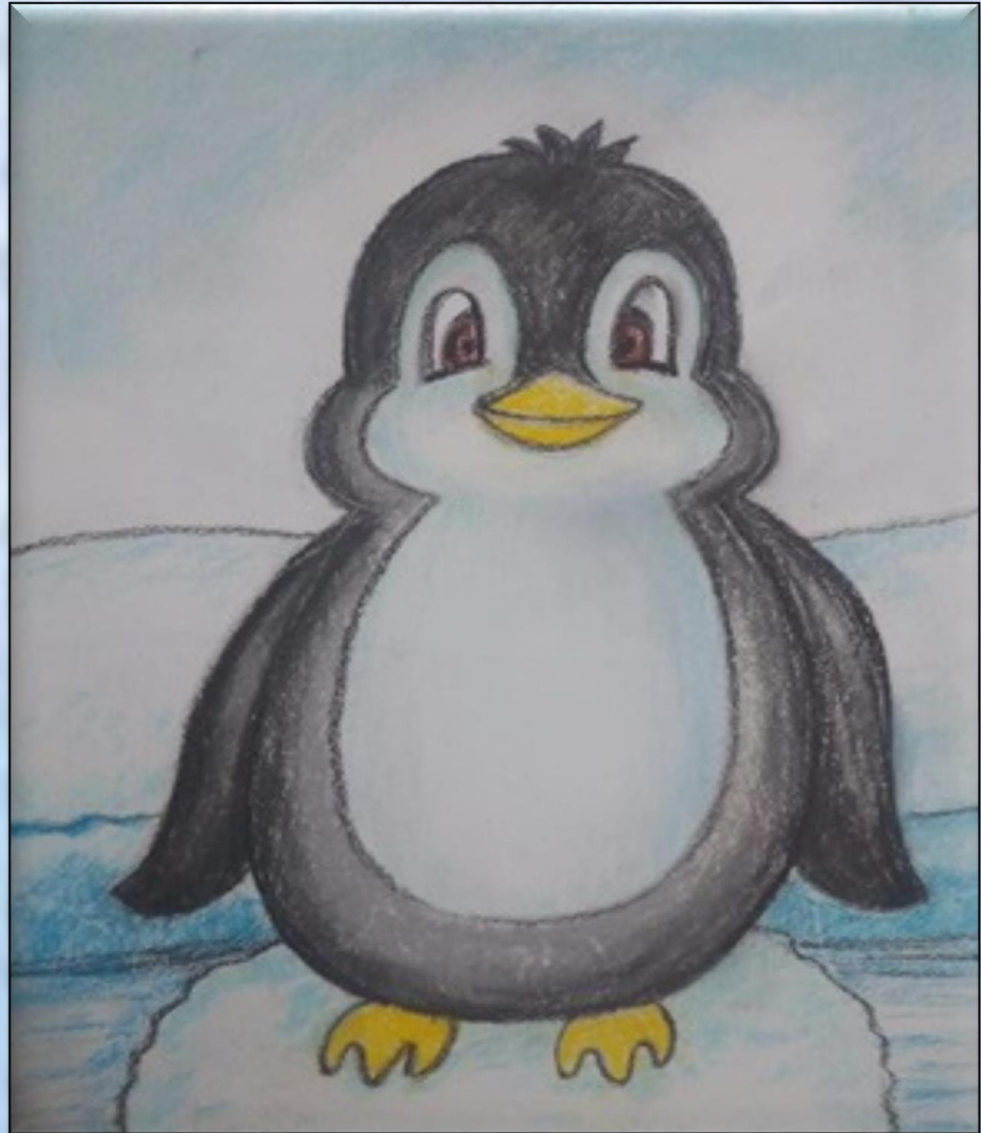

Reference image Cartoon character PANGOLIN, the Penguin

Character Sketch:
1.Pangolin is a cute baby Penguin.
2.She is happy.
3.She is fun loving.
4.She is clever.
5.She loves to be adored.

Step 1	Step 2	Step 3
First the basic structure of Pangolin, the Penguin is created using a number of ovals, closed shapes and a fewcurves.	Next the details of the character Pangolin, the Penguin is created keeping a close eye on cuteness of the character.	Then give details of the facial expressions according to the character traits of Pangolin, the Penguin.

Pangolin is a cute baby Penguin. The cuteness has been demonstrated through the use of round shapes, the eyes and the beak. She is happy and clever is demonstrated through the Eyes and the beak / lips. She is fun loving and loves to be adored is a behavioral characteristic that is to be expressed through techniques of acting in animation.

Cartoon character PANGOLIN, the Penguin

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Realistic Character's features:

Tigers have reddish-orange coats with prominent black stripes, white bellies and white spots on their ears.
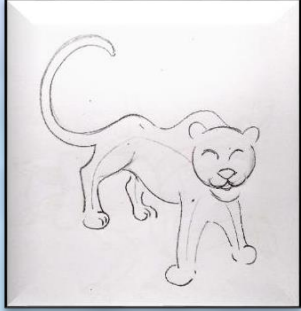

Reference image for Cartoon character SHEROO and SHARU, the Tiger couple

Character Sketch:

Sharu – Young, proud and always irritated and throwing tantrums
Sheroo – Matured, angry and ferocious.

Step 1	Step 2	Step 3
First the basic structure of Sharu, the Tigress is created using a few ovalsand curves.	Next the details of the character including its characteristic stripes iscreated.	Then the details of the facial expressions are added according to the character traits of Sharu, the Tigress.

Step 1	Step 2	Step 3
First the basic structure of Sheroo, the Tiger is created using a few ovals and curves and line of action.	Next the details of the character including its characteristic stripes are created. Care should be taken to make it muscular.	Then the details of the facial expressions are created according to the character traits of Sheroo, the Tiger.

Sharu is young is a characteristic that has to be presented through facial expression and depiction of the body. Proud, always irritated and throwing tantrums are something that is to be depicted through facial expression and body posture.

Sheroo is matured, angry and ferocious is a feature that is to be expressed through facial expression, physical appearance and of course acting in animation.

Cartoon character Sharu, the Tigress

Cartoon character Sheroo, the Tiger

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XVI
Conclusion

The purpose of this book is to create the knowledge and give practice of creating characters for Animation. The characters discussed above will guide you through the process of studying a realistic character and then create the cartoon character according to the mentioned character traits.

As a follow up of this you need to practice a lot by taking examples of other birds and animals.

In our next volume of book, we are going to learn about creating Animation frames using these characters. Keep practicing and enjoy designing more and more characters for animation.

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"Animation is not the art of drawings that move but the art of movements that are drawn" – Norman McLaren.
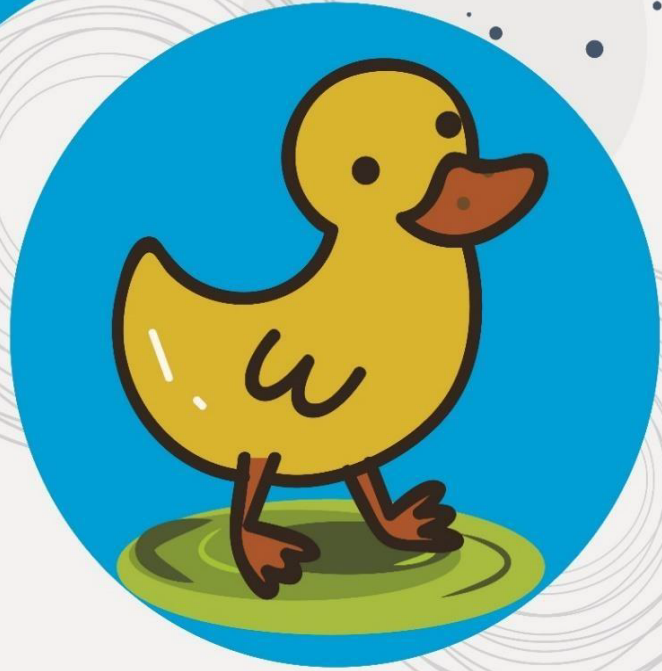
BASICS OF
CARTOON
DRAWING

IMAGE HERE