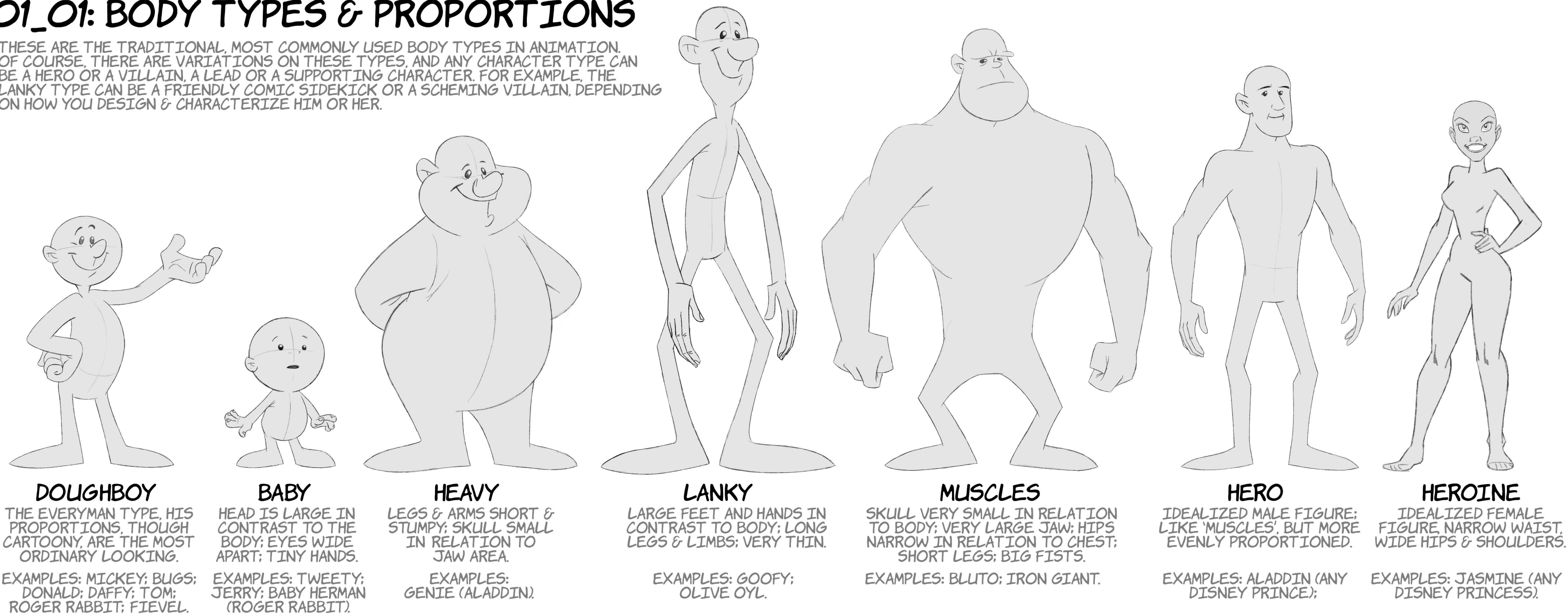
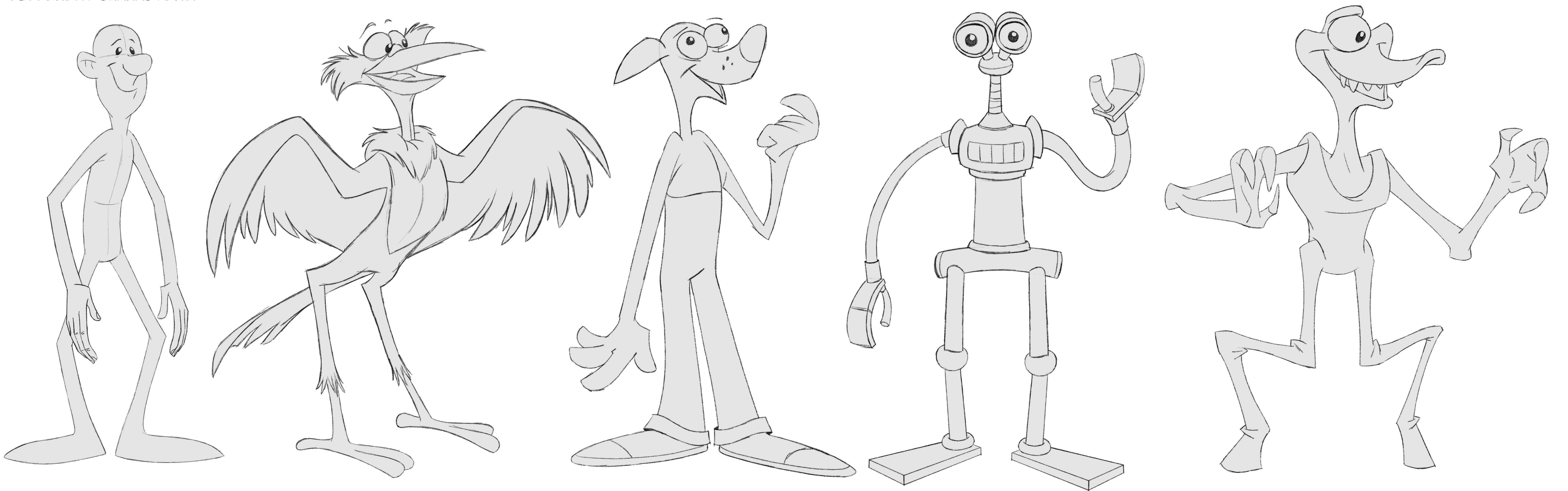


01_01: BODY TYPES & PROPORTIONS

THESE ARE THE TRADITIONAL, MOST COMMONLY USED BODY TYPES IN ANIMATION. OF COURSE, THERE ARE VARIATIONS ON THESE TYPES, AND ANY CHARACTER TYPE CAN BE A HERO OR A VILLAIN, A LEAD OR A SUPPORTING CHARACTER. FOR EXAMPLE, THE LANKY TYPE CAN BE A FRIENDLY COMIC SIDEKICK OR A SCHEMING VILLAIN, DEPENDING ON HOW YOU DESIGN & CHARACTERIZE HIM OR HER.



MANY ANIMATED CHARACTERS ARE VARIATIONS OF THESE STOCK BODY TYPES. FOR EXAMPLE, THE 'LANKY' FIGURE CAN BE TRANSFORMED INTO AN ENORMOUS NUMBER OF DIFFERENT CHARACTERS.

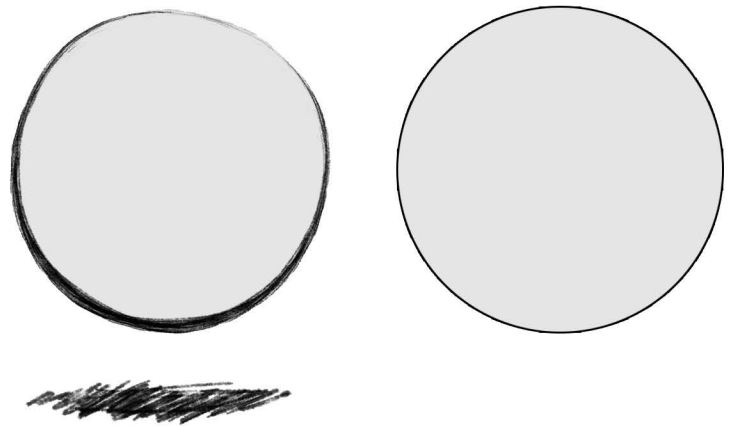


01_01: CONSTRUCTION

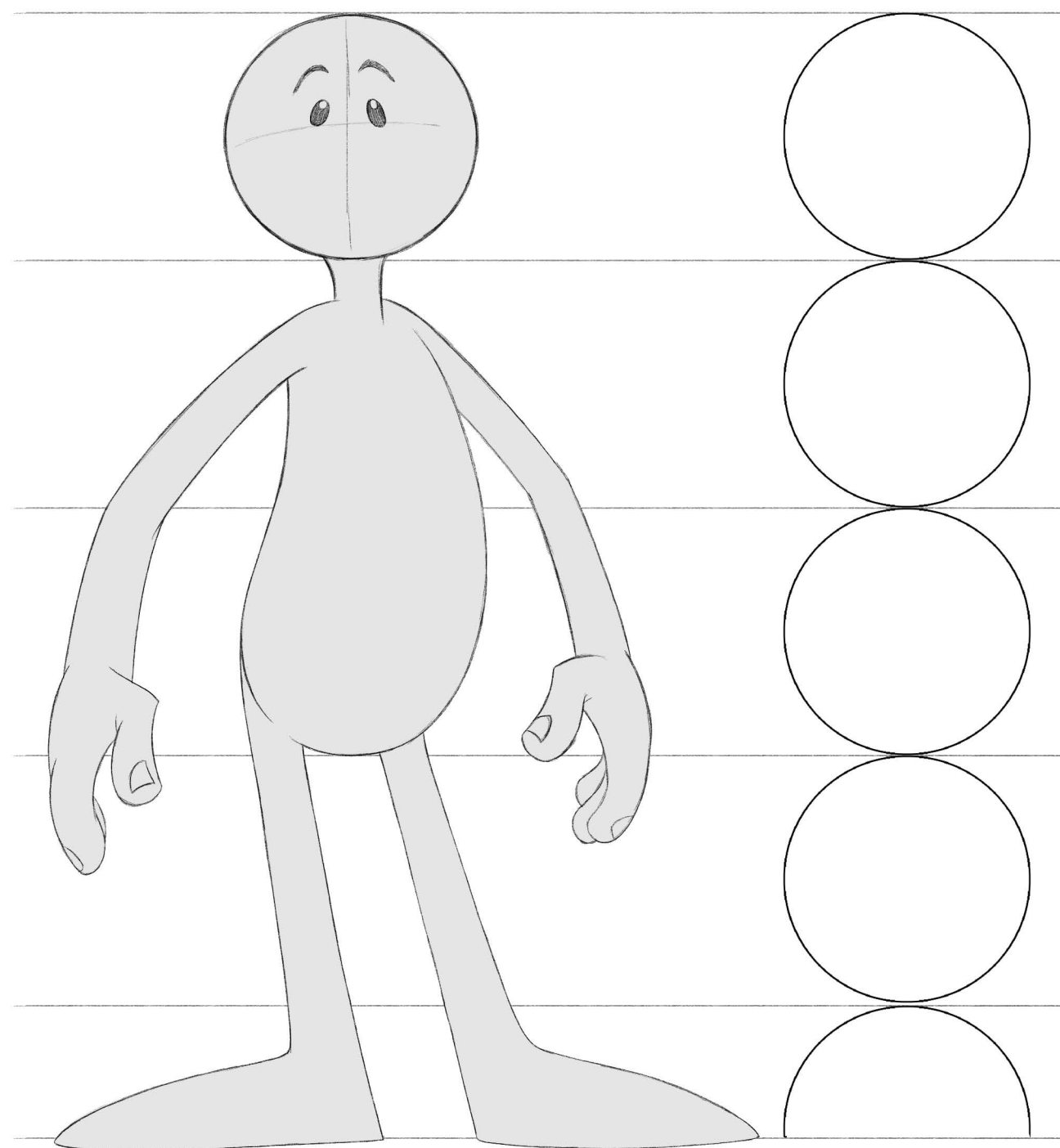
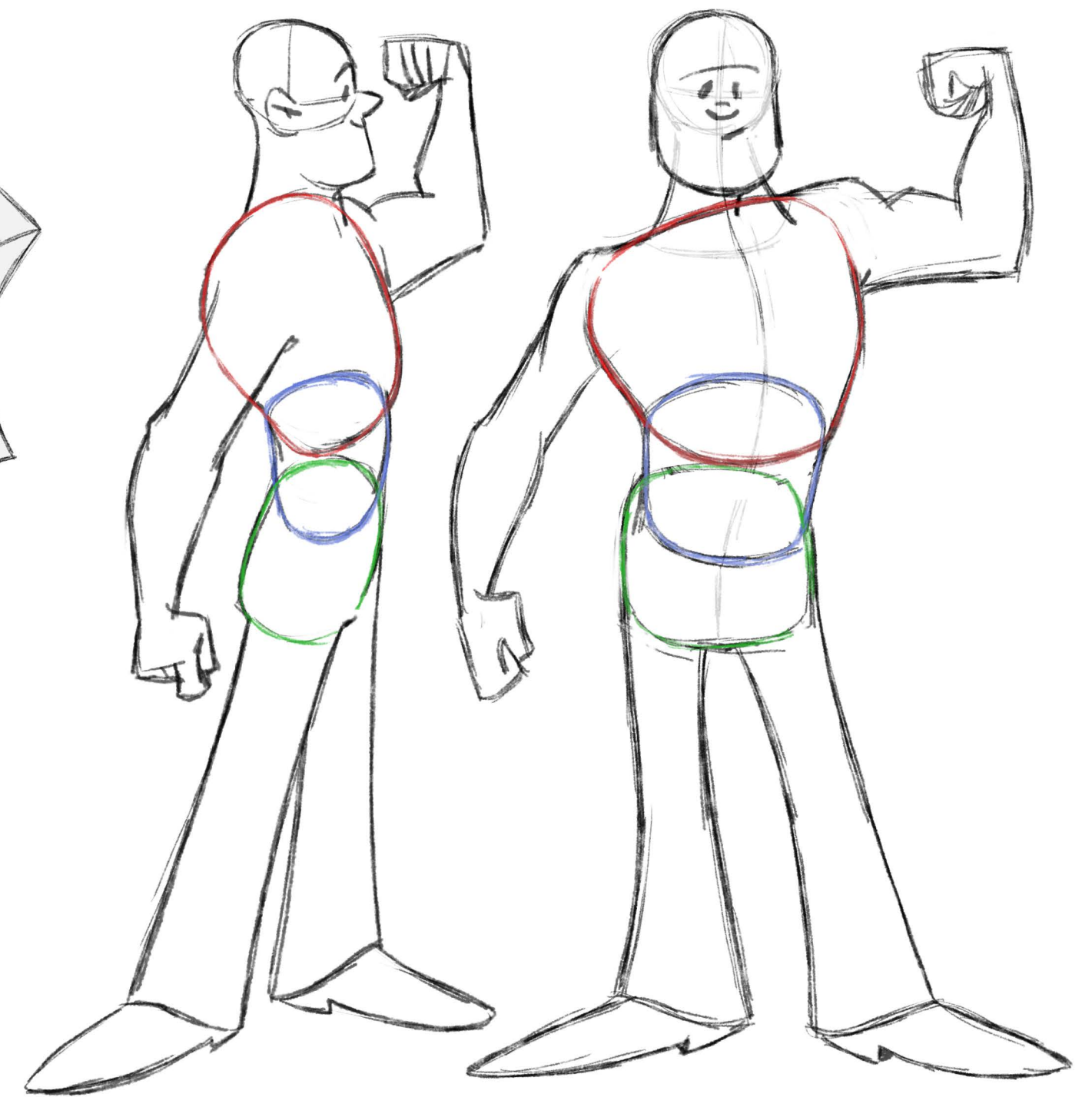
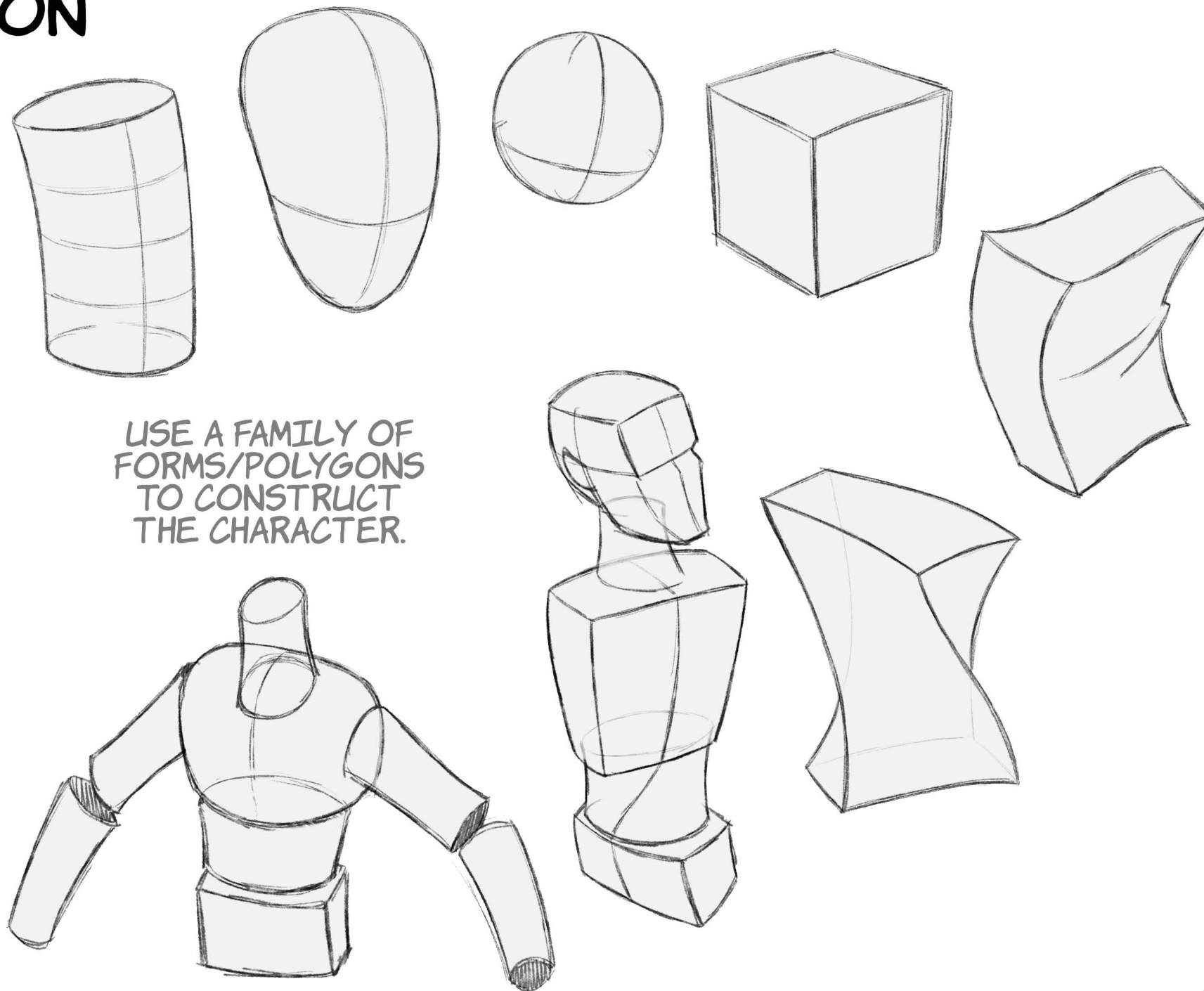
WHEN CONSTRUCTING YOUR CHARACTER, USE BASIC SHAPES.

KEEP IT LOOSE; AVOID TOO MANY DETAILS AT THE START, AS YOU'LL BE CHANGING THE DESIGN A LOT AS YOU WORK.

DRAW VOLUMES, NOT LINES!
SPHERES, NOT CIRCLES!

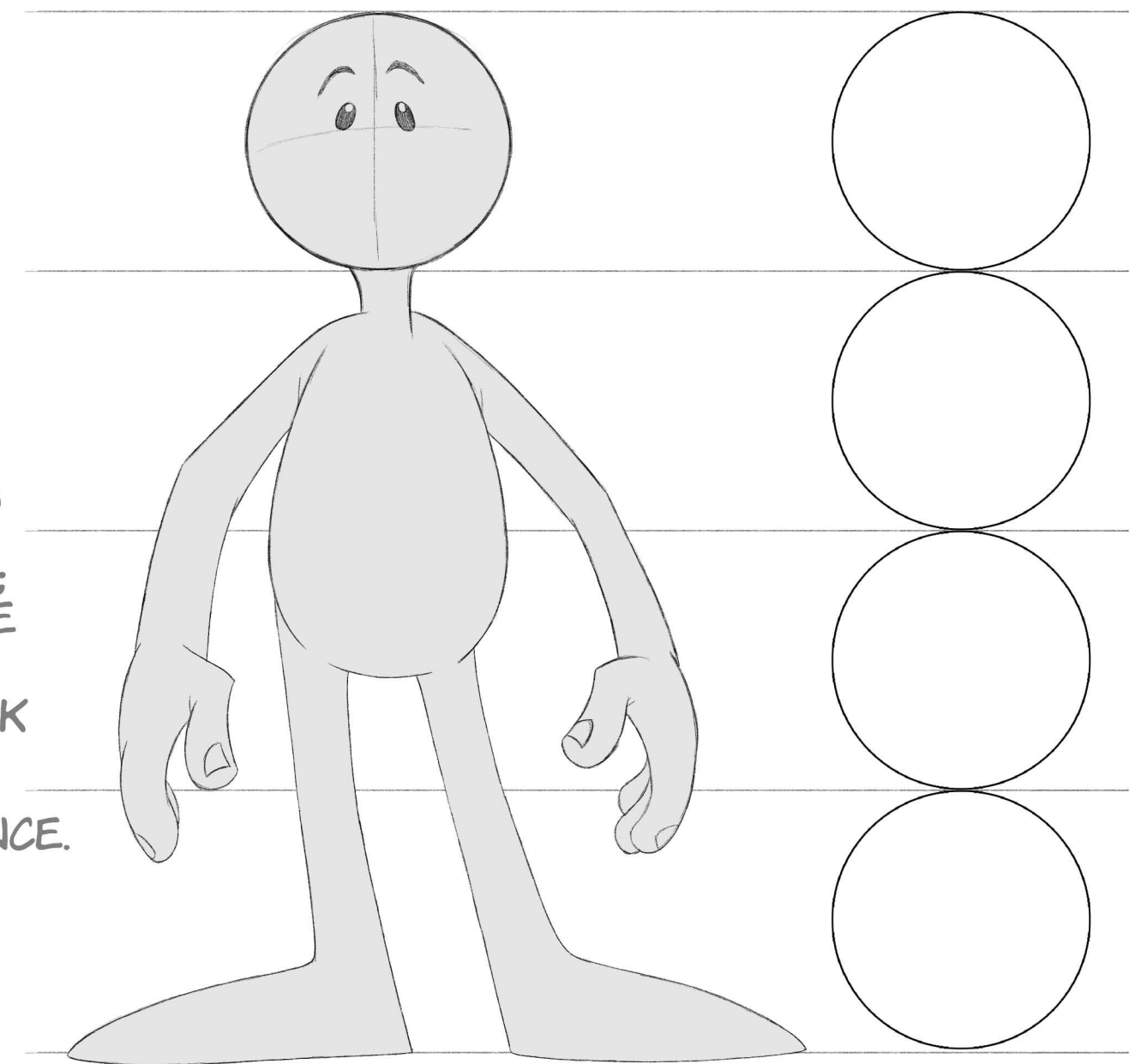


THE LINE WEIGHT OF THE LEFT SPHERE HAS BEEN EXAGGERATED TO SHOW THE PRINCIPLE THAT LINES SHOULD CONVEY NOT JUST SHAPE, BUT VOLUME/MASS.



ESTABLISH PROPORTION
OF HEADS TO BODY, E.G.:
4.5 HEADS = FULL HEIGHT;
2 HEADS = TORSO & NECK.

VARY THE PROPORTIONS
TO CREATE DIFFERENT
CHARACTERS.



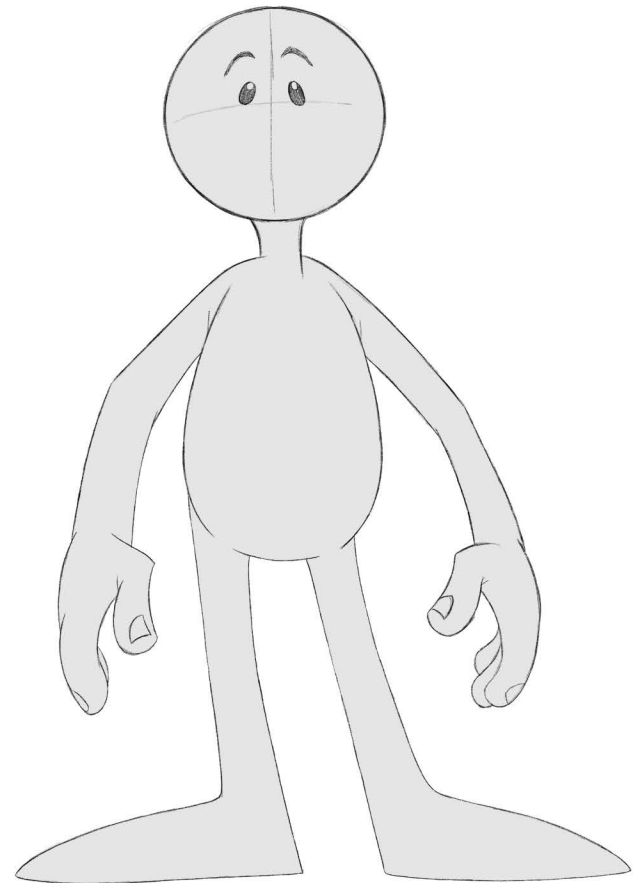
FOR EXAMPLE, THIS
FIGURE'S TORSO &
NECK ARE 1.5 HEADS;
THE ENTIRE FIGURE
IS 4 HEADS HIGH.

EVEN A MINOR TWEAK
TO PROPORTIONS
CAN TRANSFORM A
CHARACTER'S APPEARANCE.

01_02: GESTURE & ATTITUDE DRAWINGS

GESTURE DRAWINGS CAPTURE EMOTIONS, MENTAL STATES OR BROAD POSES/ACTIONS.

TAKE THE BASIC 'DOUGHBOY' MODEL.



DRAW THE POSE FAST AND LOOSE. TRY TO KEEP PROPORTIONS ACCURATE.



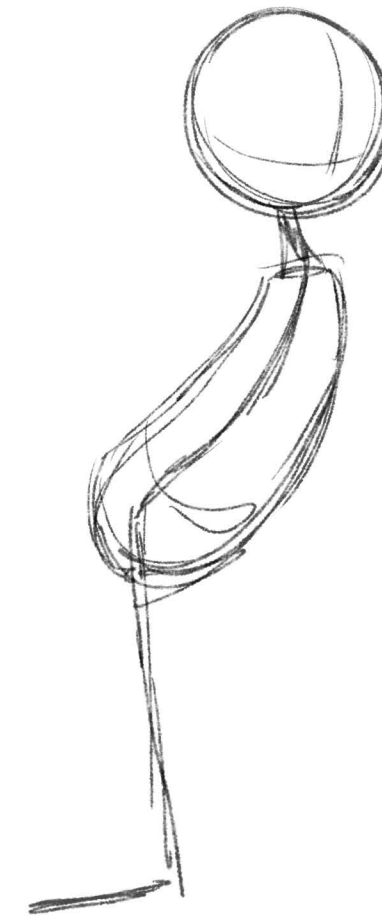
WATCH VOLUMES AND PROPORTION. DON'T DRAW FINE DETAILS.

THIS LEVEL OF DETAIL IS FINE FOR MOST GESTURE DRAWINGS.

1. DRAW QUICKLY. LAY DOWN THE SPAN OF THE POSE, HEAD TO TOE. DRAW LINE OF ACTION.



2. BLOCK IN MASSES. SIMPLE FORMS FOR CHEST, HIPS, ETC. WATCH PROPORTIONS.



3. ADD SUPPORTING LIMBS AND ANY SECONDARY BODY OR COSTUME PARTS.

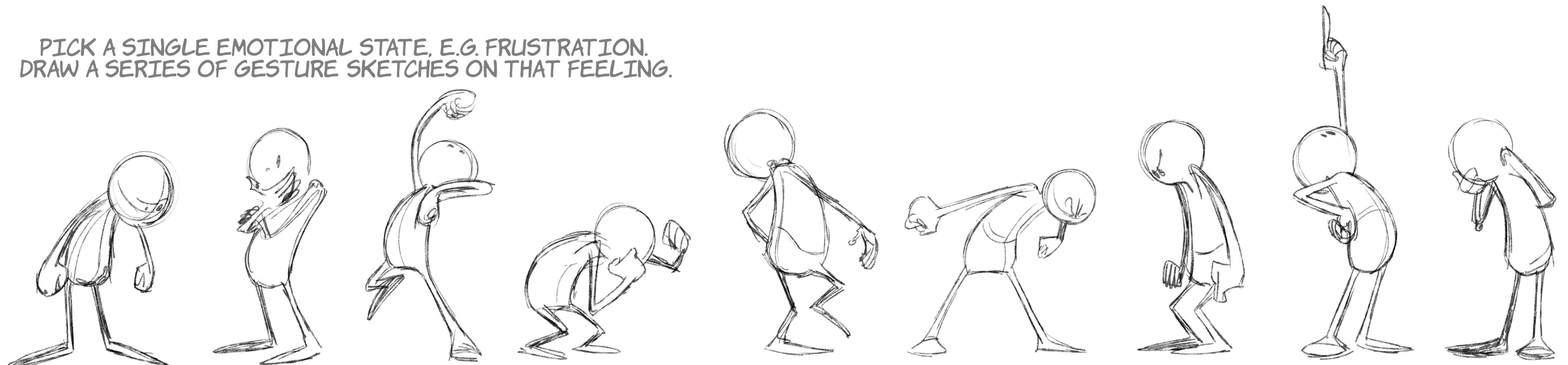


DRAW A SERIES OF GESTURE ACTION POSES. DON'T TAKE MORE THAN 1 MINUTE TO DO EACH.

IF YOU GET STUCK ON A POSE, DON'T STRUGGLE WITH IT. MOVE ON TO A FRESH DRAWING.



PICK A SINGLE EMOTIONAL STATE, E.G. FRUSTRATION. DRAW A SERIES OF GESTURE SKETCHES ON THAT FEELING.

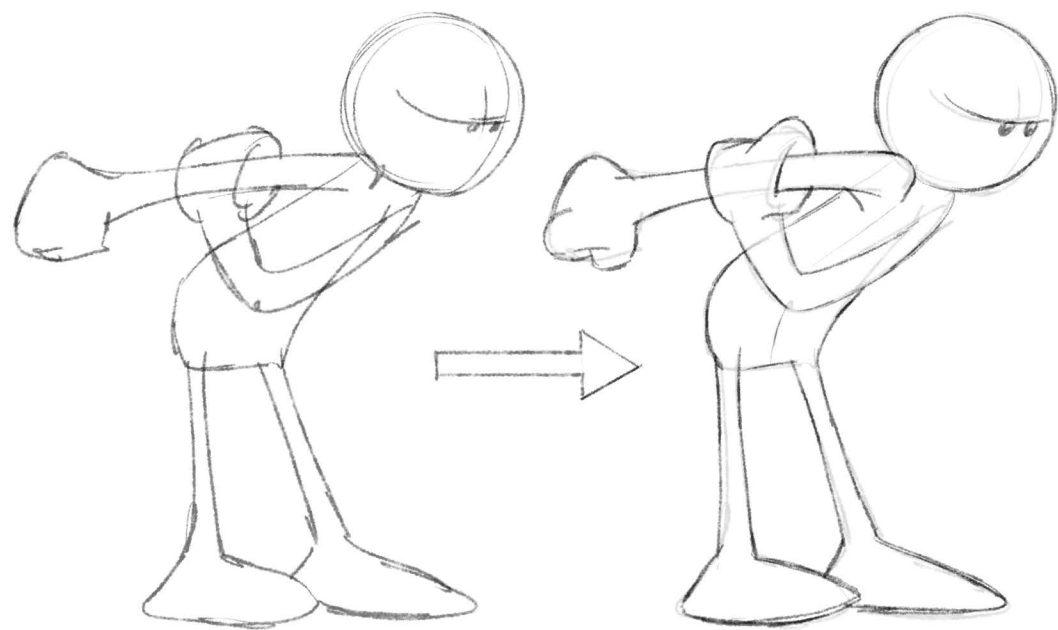


01_02: ATTITUDE DRAWINGS

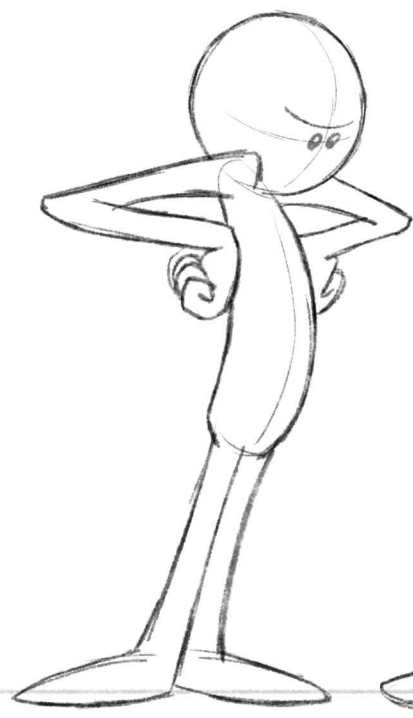
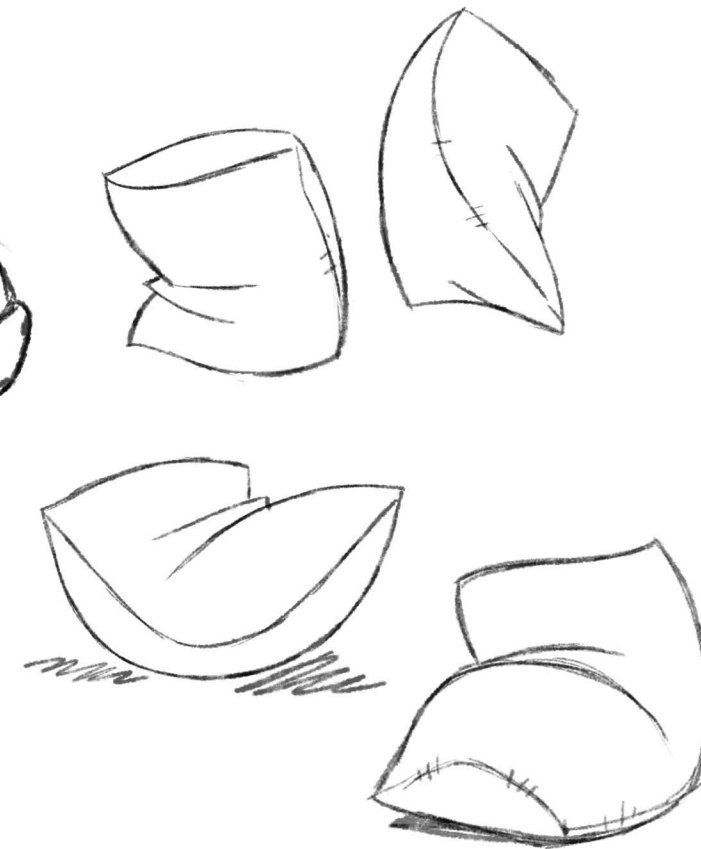
ATTITUDE DRAWINGS CONVEY THE ESSENCE OF A POSE: THE EMOTIONAL STATE AND THE PHYSICAL ACTION.

ONE GLANCE AT AN ATTITUDE POSE SHOULD BE ENOUGH TO COMMUNICATE THE FEELINGS OF THE CHARACTER.

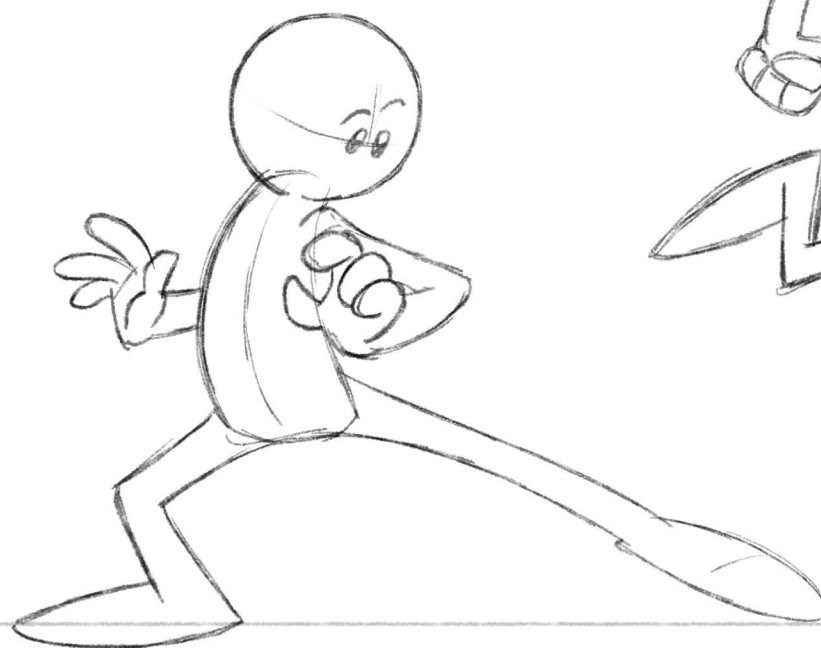
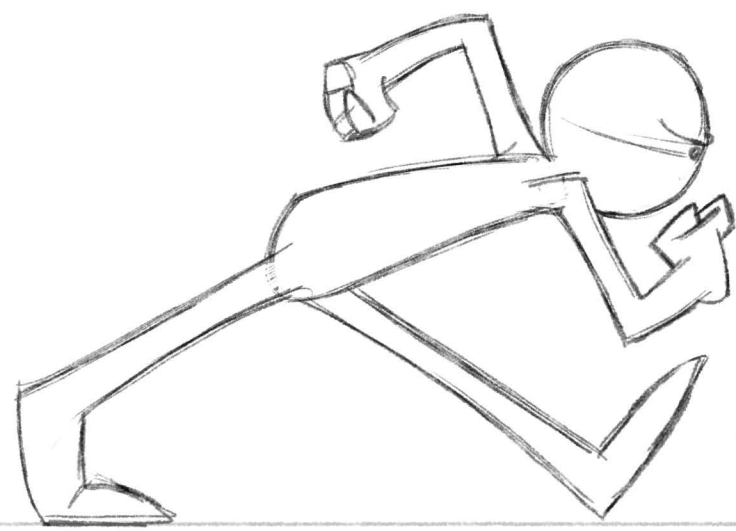
YOU COULD DO THESE AS ROUGH SKETCHES, AS GESTURE DRAWINGS; IN THIS CASE WE'RE CLEANING THEM UP SLIGHTLY, FOR EXTRA CLARITY.



DON'T BE SCARED TO TWIST THE FIGURE; THINK OF THE TORSO AS A SACK OF SAND OR FLOUR.



FAVOR MOST OF AN ATTITUDE WALK CYCLE AROUND THE CONTACT POSES, NOT THE PASSING OR-IN BETWEEN POSES.



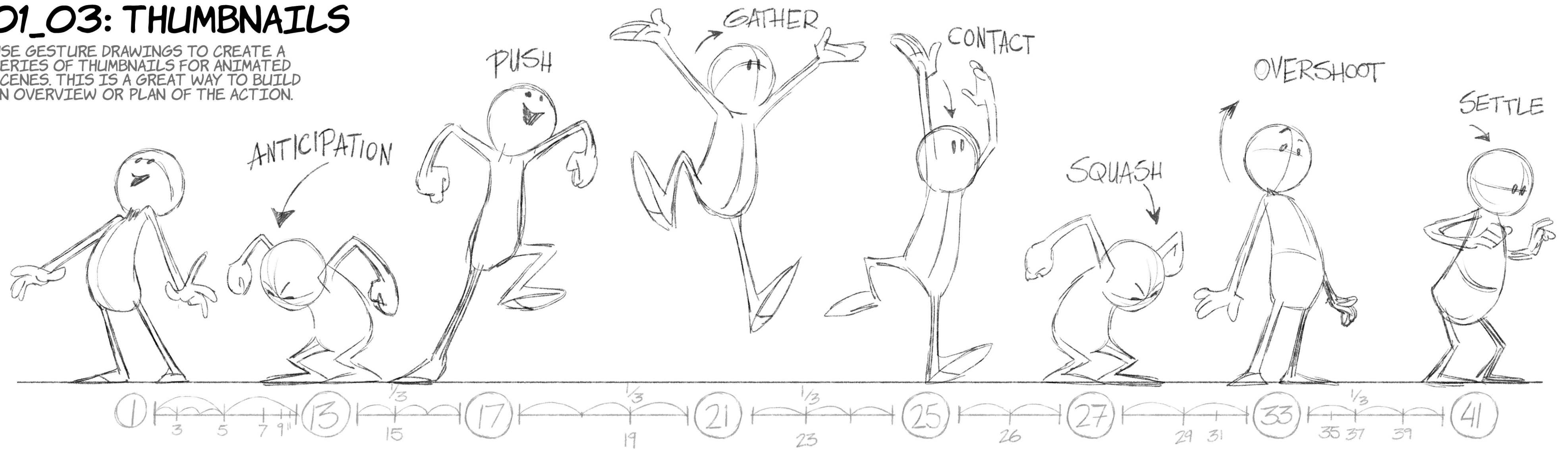
DON'T BE TOO INHIBITED BY REALISM! THIS MEDIUM ALLOWS EXTREMES OF EXAGGERATION.

KEEP THINGS LOOSE, ESPECIALLY WITH CARTOONY CHARACTERS.



01_03: THUMBNAILS

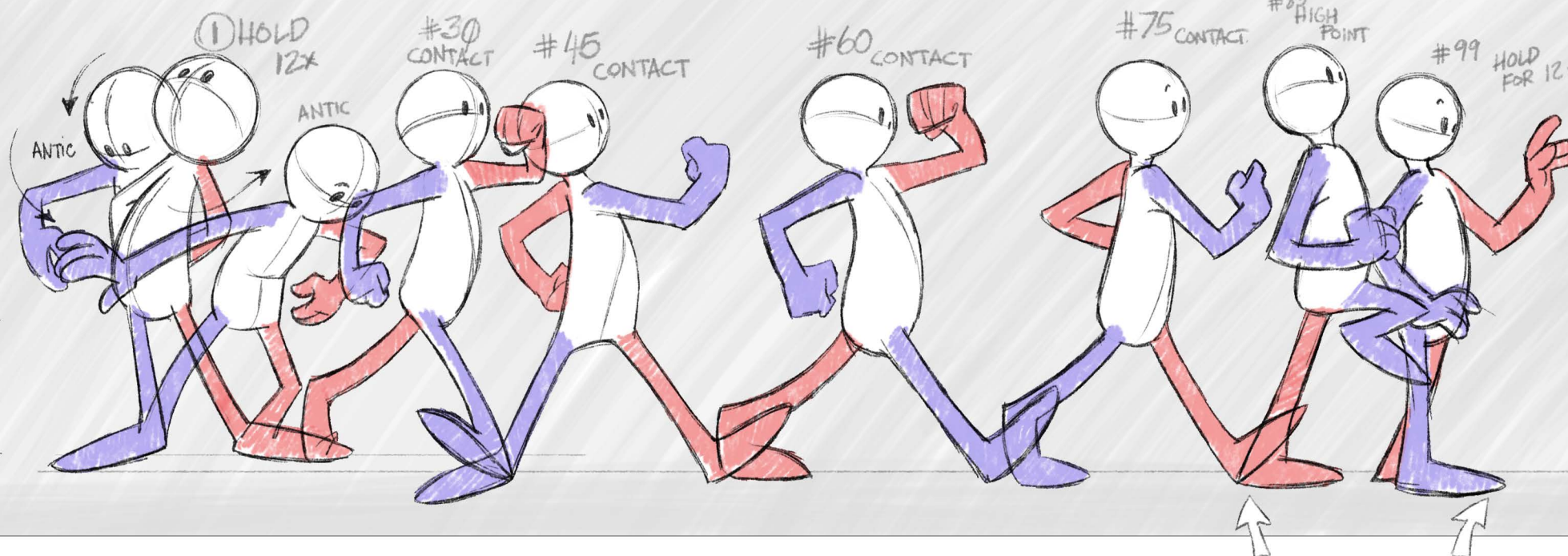
USE GESTURE DRAWINGS TO CREATE A SERIES OF THUMBNAILS FOR ANIMATED SCENES. THIS IS A GREAT WAY TO BUILD AN OVERVIEW OR PLAN OF THE ACTION.



IF NEEDED, TIGHTEN THE GESTURE DRAWINGS.

THIS ALLOWS A FINE LEVEL OF CONTROL.

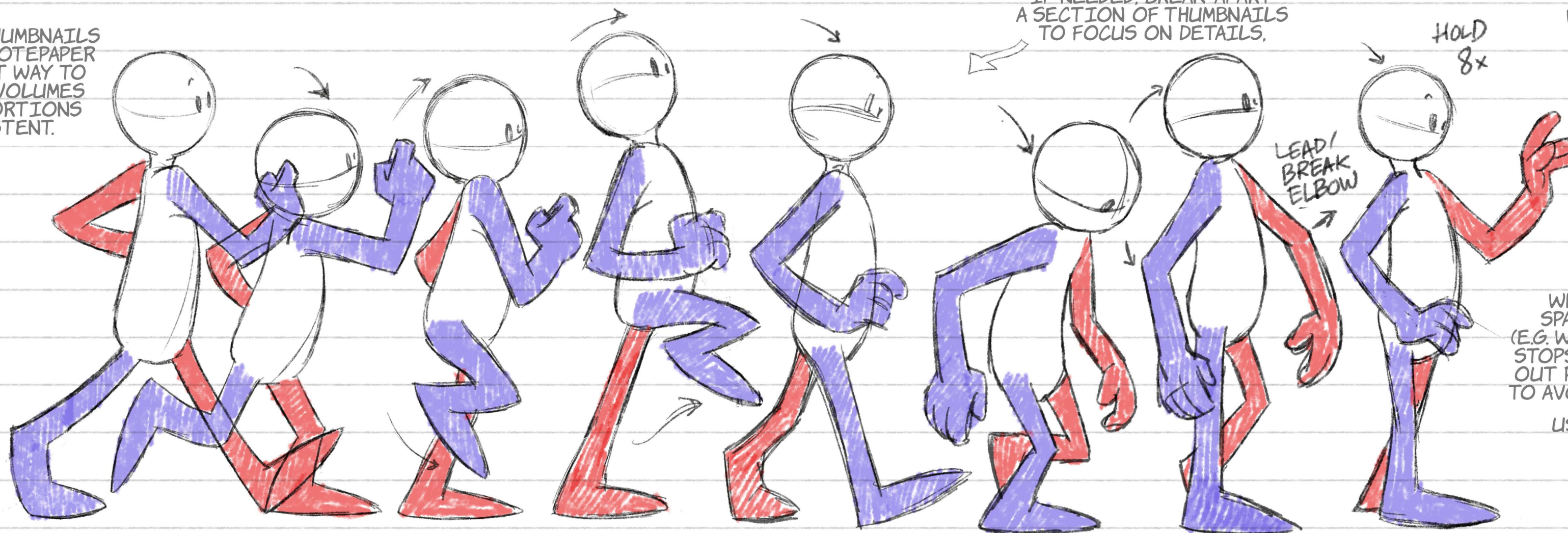
USE ARROWS/NOTES TO SHOW ARCS & TIMING.



COLORS DIFFERENTIATE LEFT/RIGHT SIDES, E.G. RED = LEFT, BLUE = RIGHT.

THIS METHOD IS VERY USEFUL FOR WALKS, RUNS, TURNS, FAST ACTIONS, ETC.

DRAWING THUMBNAILS ON LINED NOTEPAPER IS A GREAT WAY TO KEEP THE VOLUMES AND PROPORTIONS CONSISTENT.



#1 AND #2 ARE 'IN PLACE', WHEREAS #3 THROUGH #8 ARE SPREAD OUT. THIS ALLOWS THE POSES TO BE 'READ' MORE EASILY.

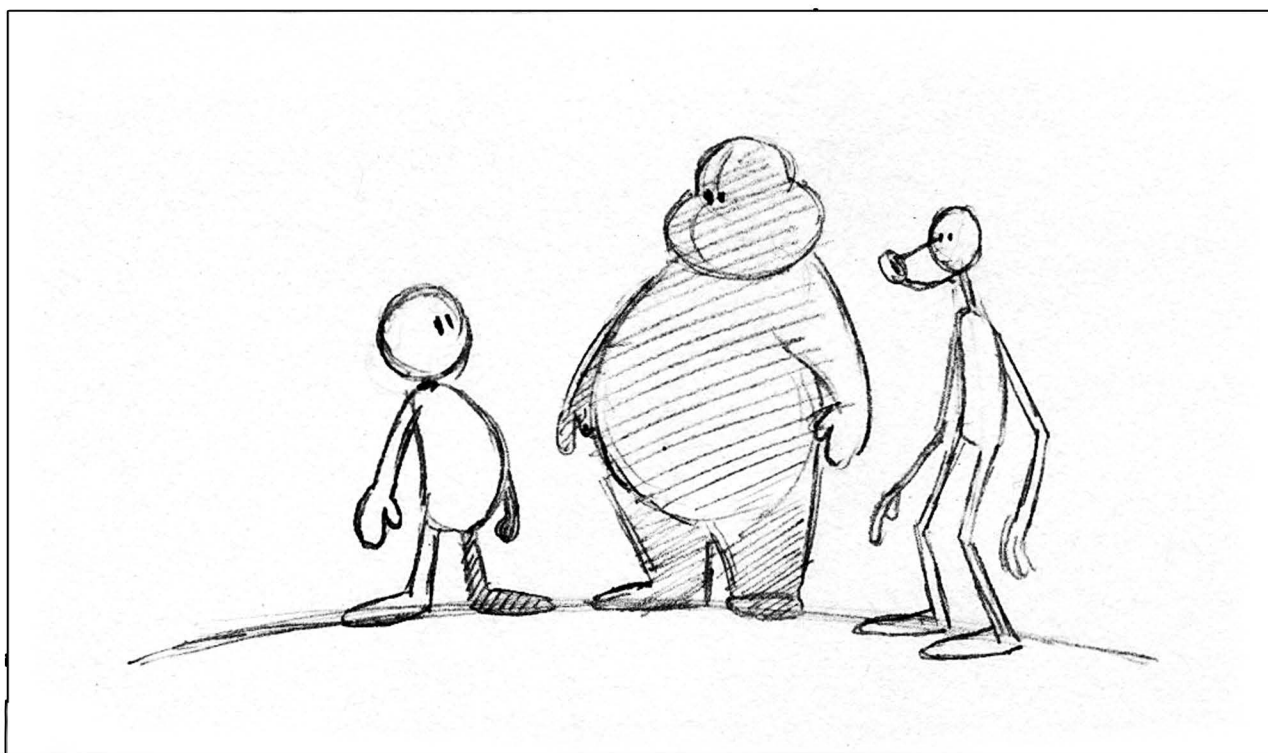
'IN PLACE' (OVERLAPPING) DRAWINGS IS ESSENTIAL FOR BLOCKING OUT THE CONTACT WALK POSES.

WHEN AN ACTION IS SPACED TOO TIGHTLY (E.G. WHERE THE CHARACTER STOPS WALKING), SPACING OUT POSES IS NECESSARY TO AVOID VISUAL CLUTTER.

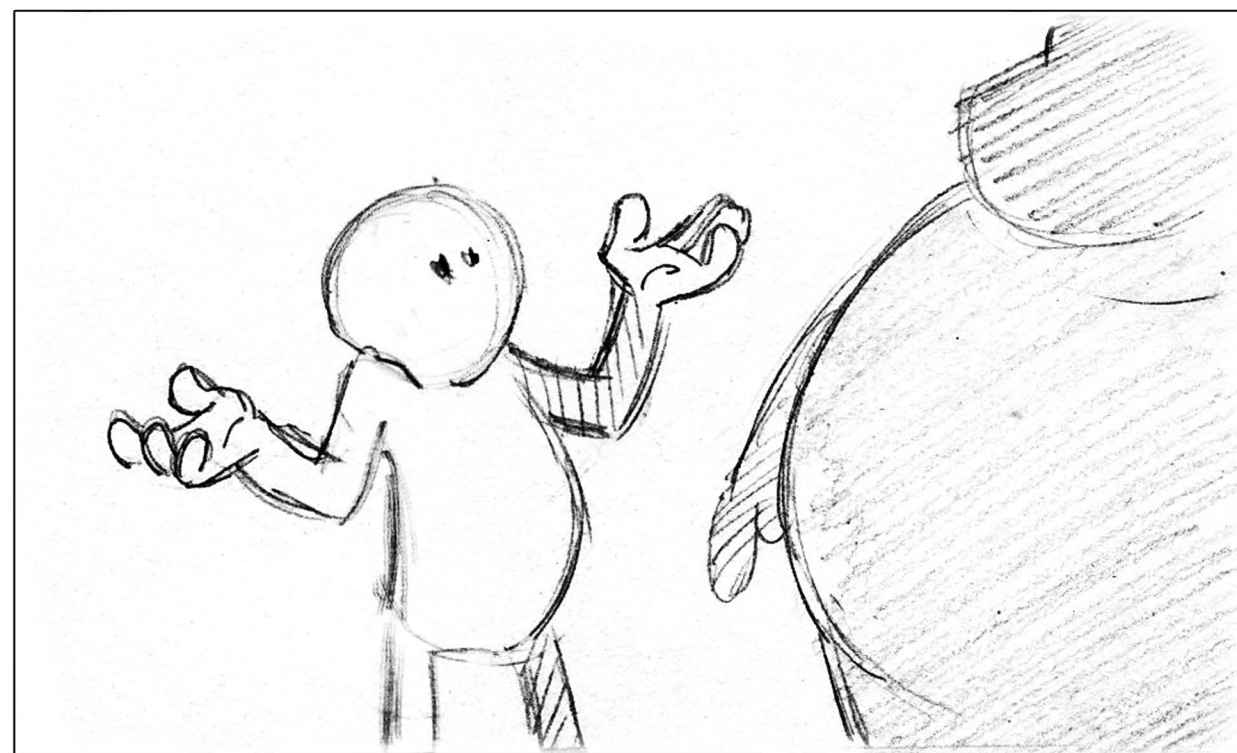
USE EITHER METHOD AS APPROPRIATE.

01_04: STORYBOARD & STAGING

THIS IS A DRAWING COURSE, SO THIS IS ONLY A QUICK INTRODUCTION TO THE SUBJECT OF STORYBOARDS. IT'S IMPORTANT TO UNDERSTAND THAT BOARD ANGLES WILL AFFECT YOUR DRAWING DESIGNS.

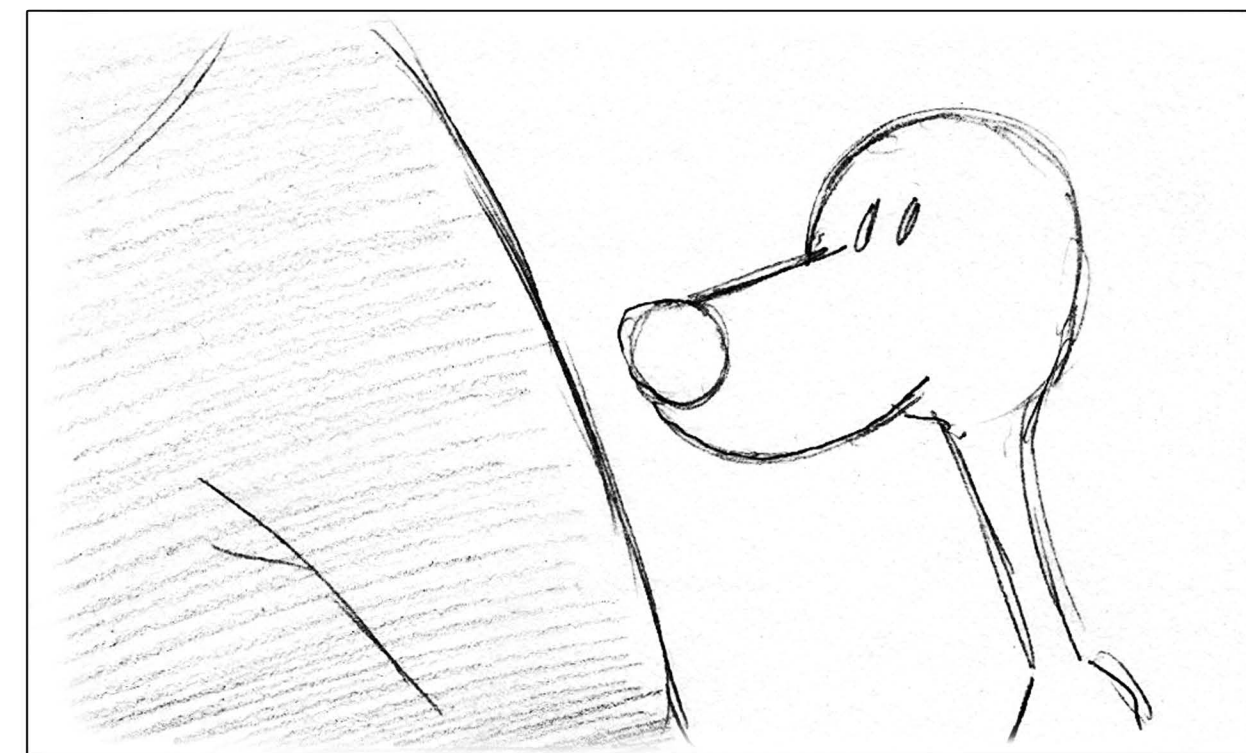


BECAUSE OF THE LIMITATIONS OF FLASH/CGI/TV PRODUCTION, AND WEAK CREATIVE DIRECTION, THIS TYPE OF "ZERO POSE" STAGING HAS BECOME INCREASINGLY COMMON. CHARACTERS ARE PLACED IN THEIR DEFAULT RIG/MODEL SHEET POSES, LEAVING MANY SCENES DEVOID OF ANY DYNAMIC FEELING.



THE ADVANTAGE OF THIS METHOD IS SPEED. ONCE THE SCENE IS SET UP, THE CAMERA CAN BE ZOOMED IN FOR MEDIUM CLOSE-UPS.

THE ANIMATORS CAN THEN WORK OUT OF THE ZERO POSE OR RIG, WITH FEWER CONTINUITY HOOK-UP ISSUES.



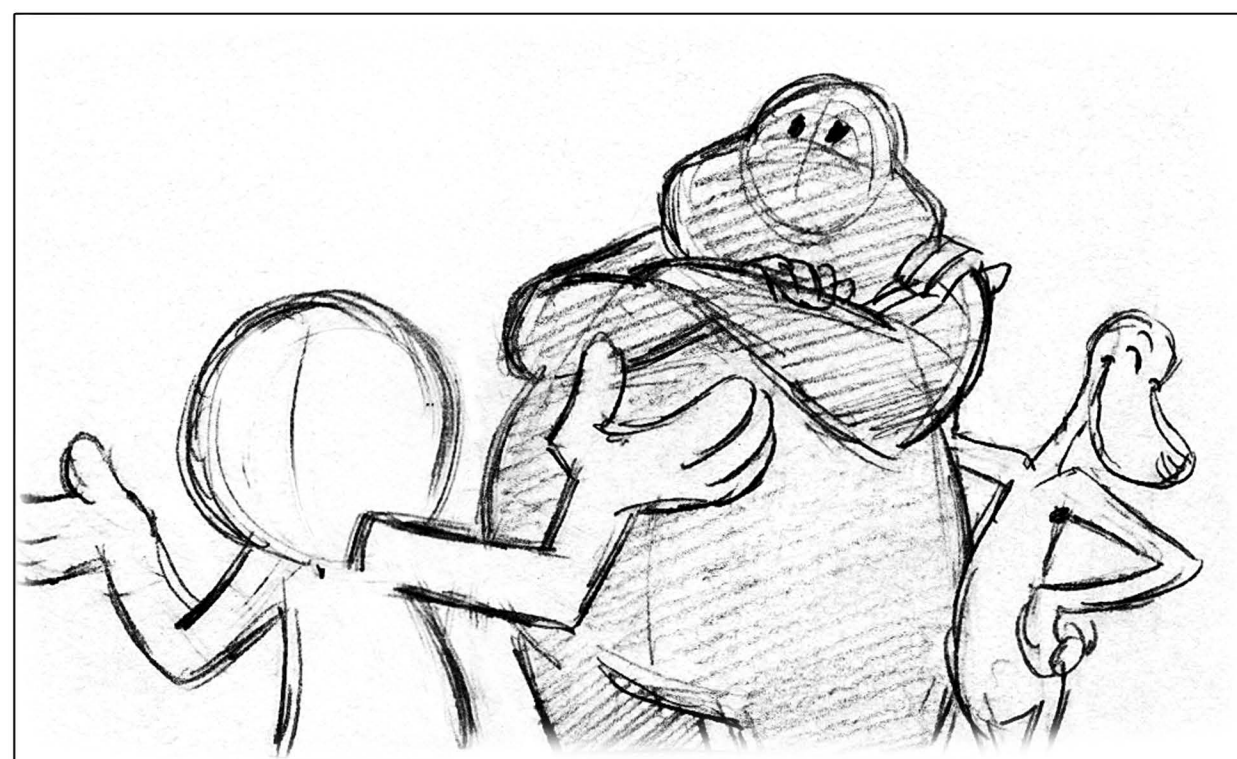
HERE WE CUT TO A CLOSE-UP OF THE DOG, BUT AGAIN, IT'S JUST A CROPPED AREA OF THE FIRST SHOT.

THIS IS THE FASTEST & CHEAPEST WAY TO CREATE YOUR SCENES. BUT IT IS NOT THE BEST.

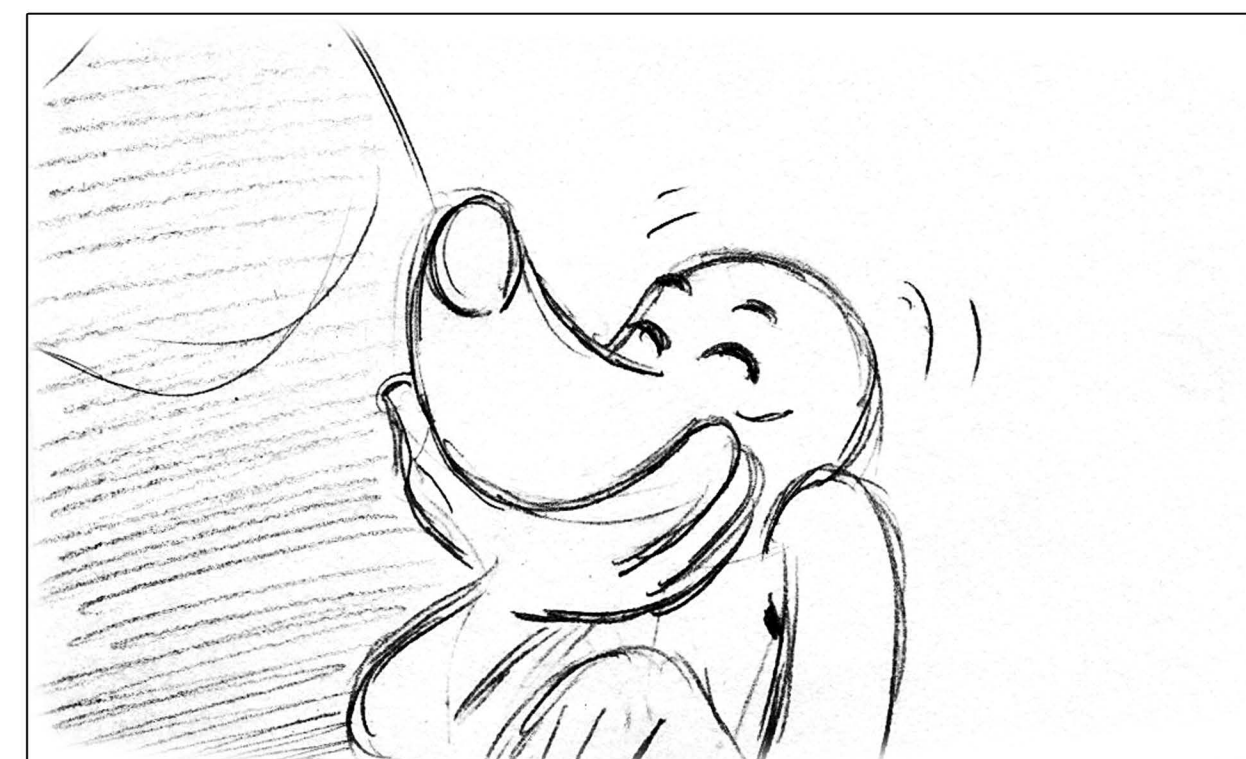


FIRST, DON'T FEEL COMPELLED TO START THE SCENE WITH THE CHARACTERS IN THEIR DULL RIG/ZERO POSES!

IN THIS EXAMPLE, WE'VE GOT A TRIANGULAR COMPOSITION, WITH THE MAIN CHARACTER EXPRESSING EMOTION, LEANING IN, WITH THE DUO TO THE RIGHT LEANING ON ONE ANOTHER. THE TRIO TOGETHER FORM A VISUAL TRIANGLE, A DYNAMIC POSE.



CUT TO A CONTRASTING CAMERA ANGLE; IN THIS CASE, AN OVER-THE-SHOULDER SHOT OF THE MAIN CHARACTER. THIS ALLOWS US TO SEE THE SKEPTICAL REACTION OF THE DUO, AND GIVES THE SEQUENCE VISUAL TEXTURE.

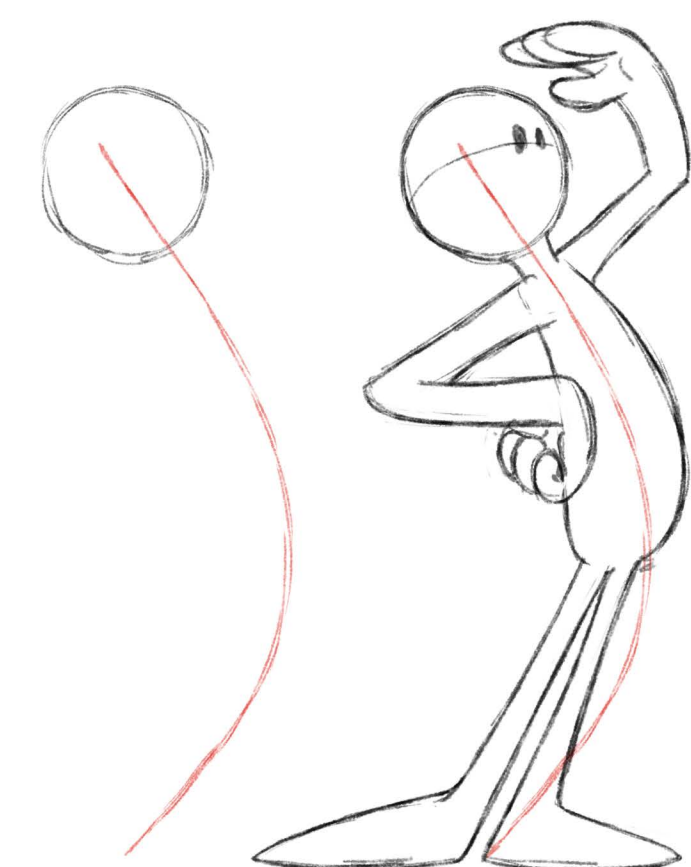


NOW A CUT TO THE CLOSE-UP OF THE DOG, AGAIN IN A STRONGER POSE.

THE OLD ENGINEERS' JOKE, WHEN FACED WITH AN IMPOSSIBLE DEMAND OF DOING SOMETHING FASTER, BETTER AND CHEAPER:

PICK TWO!

O2_01: LINE OF ACTION & REVERSALS



BUILD THE POSE AROUND A STRONG, SIMPLE LINE.

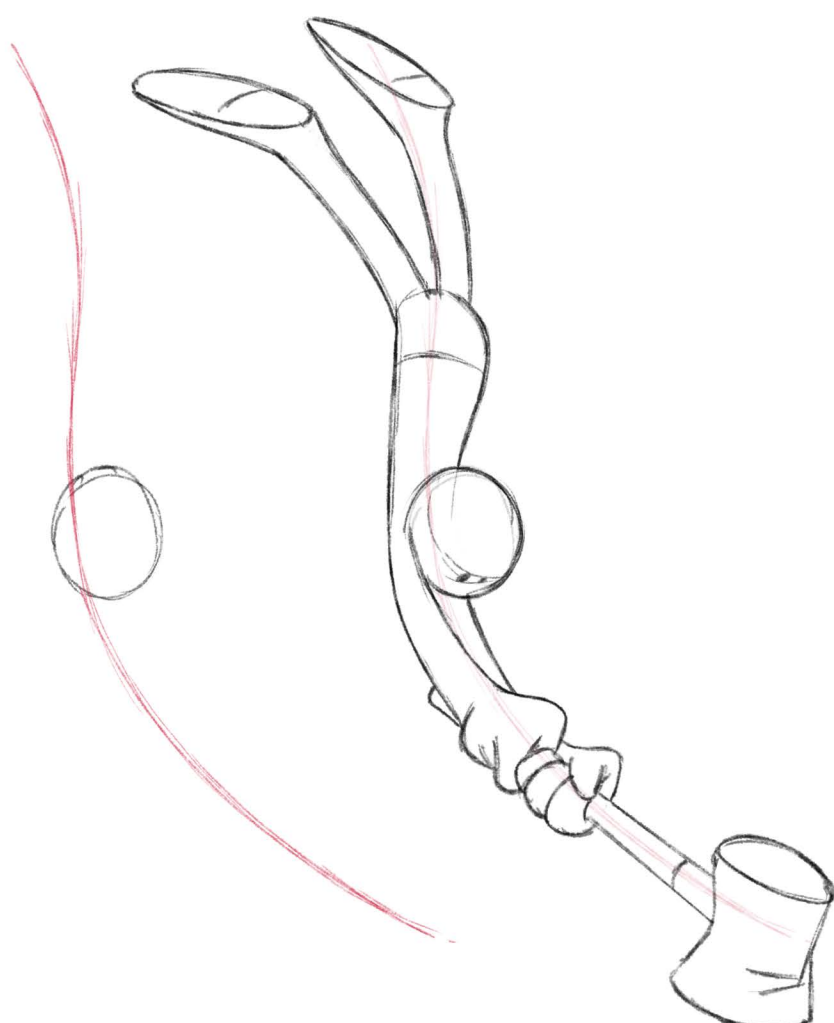


WEIGHT IS ON THE BASE OF THE LINE.

LEG NOT BEARING WEIGHT CAN BE VARIED. NOTE LEGS IN GREEN AND BLUE; THOSE POSITIONS DON'T AFFECT THE LINE OF ACTION.



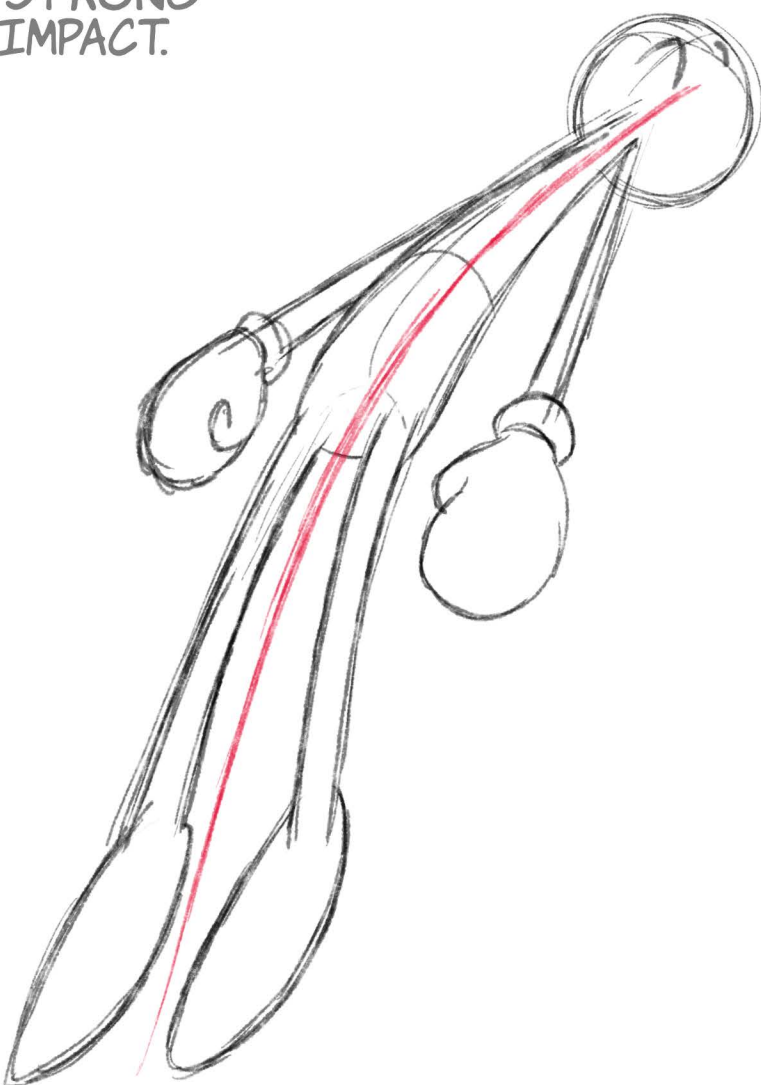
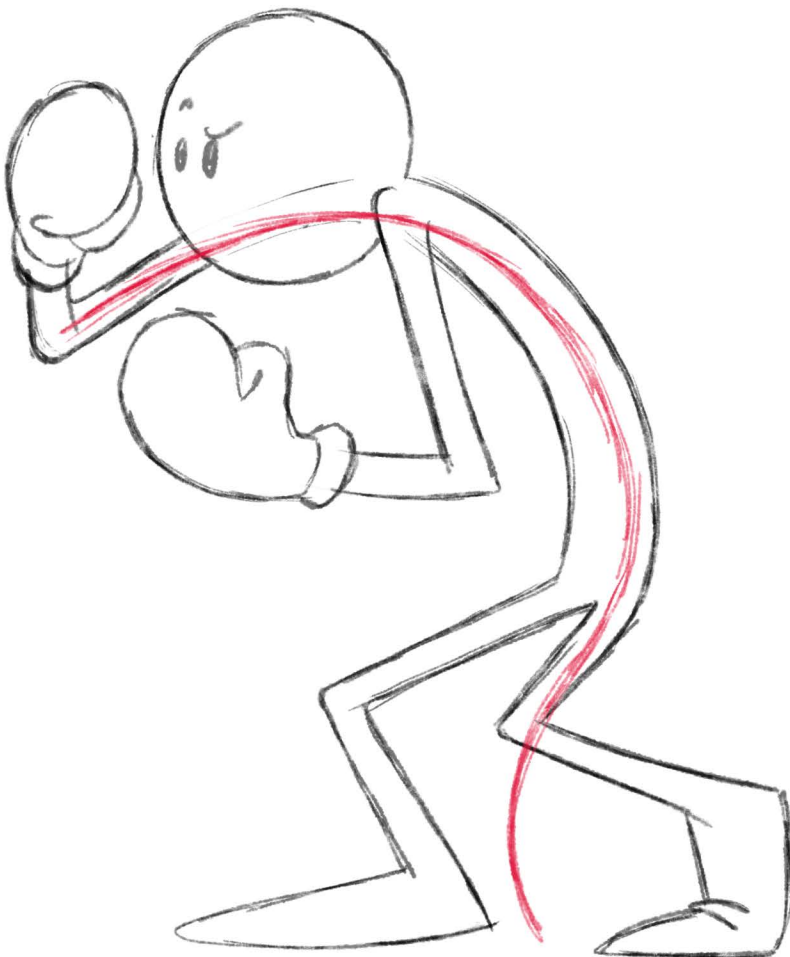
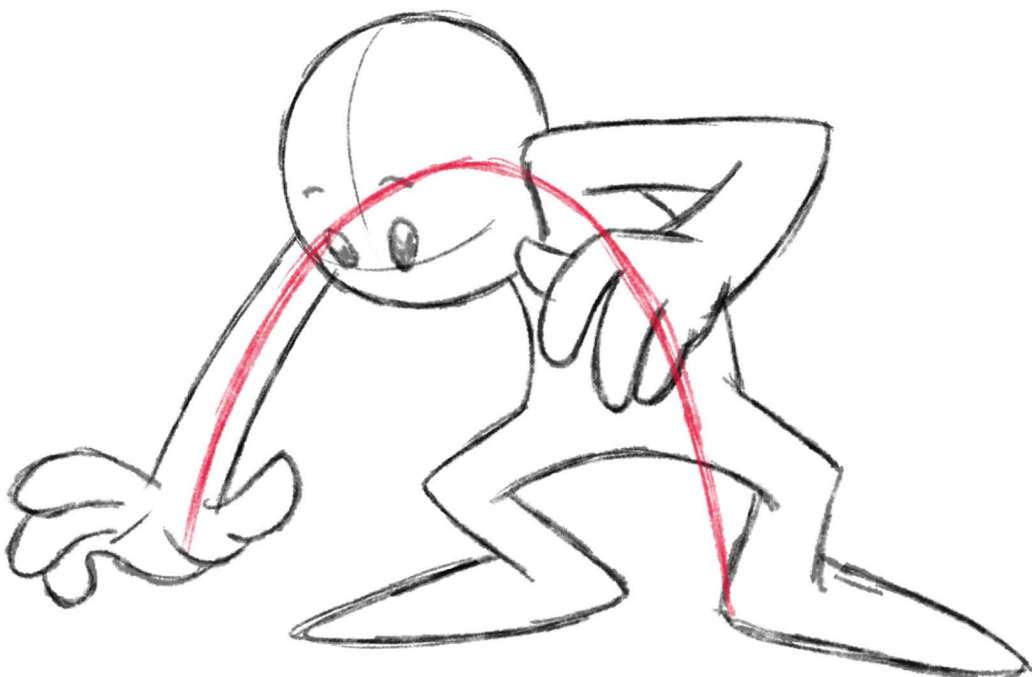
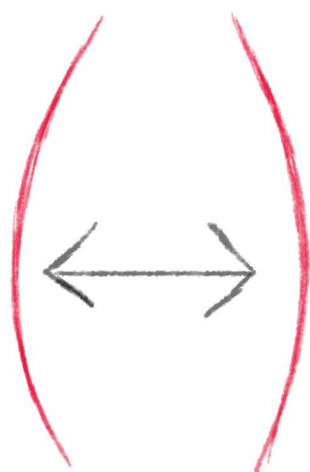
LINE OF ACTION CAN FOLLOW HAIR AND CLOTHING.



THE LINE CAN FOLLOW FROM THE TIP OF THE FEET TO INANIMATE OBJECTS.

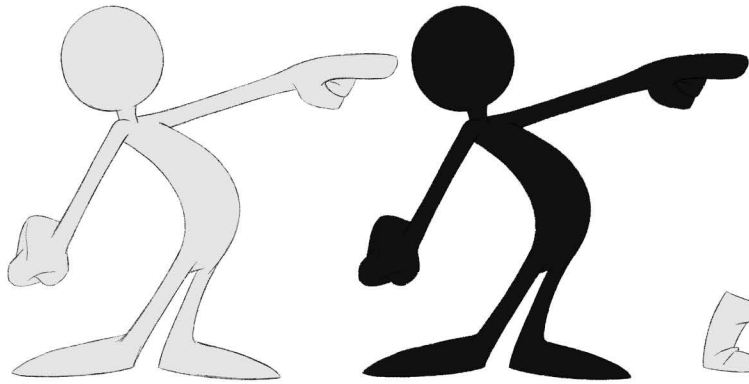
REVERSALS

FORCEFUL ANIMATION RESULTS WHEN YOU CONTRAST TWO KEY POSES BUILT AROUND OPPOSING LINES OF ACTION.

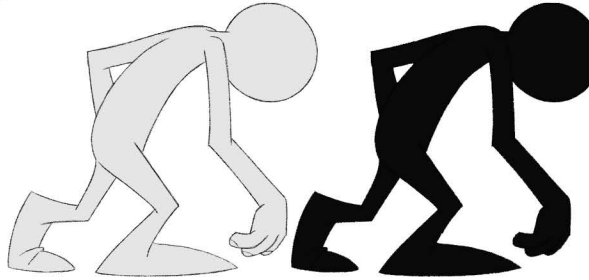


THIS IS ESPECIALLY IMPORTANT WHEN DRAWING A STRONG PHYSICAL IMPACT.

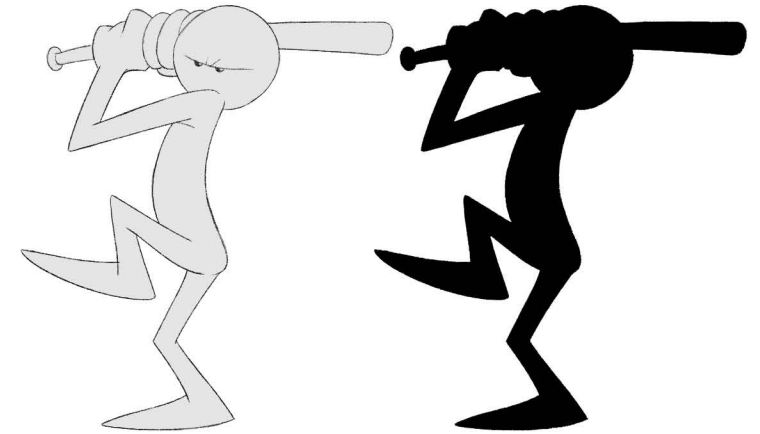
02_02: SILHOUETTE



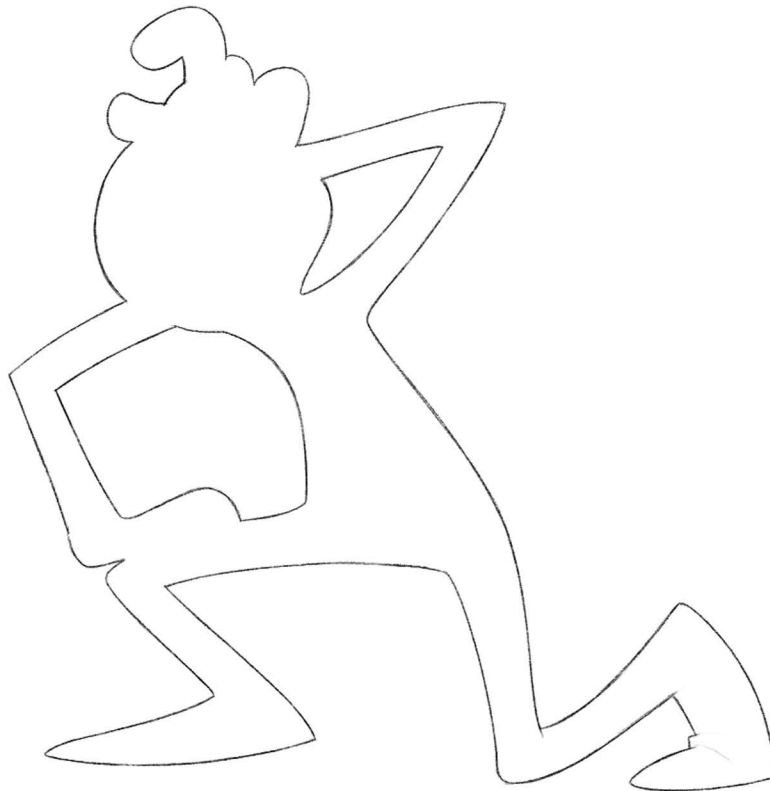
THE SILHOUETTE ALONE SHOULD BE ABLE TO CONVEY THE ACTION AND THE EMOTION/ATTITUDE OF THE CHARACTER.



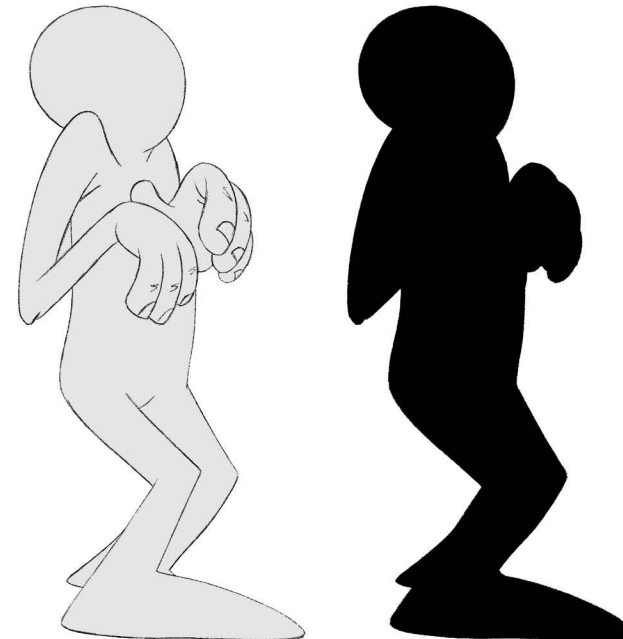
THE WALK AND THE WEARINESS CAN BOTH BE UNDERSTOOD FROM THE OUTLINE ALONE.



THIS IS ESPECIALLY IMPORTANT ON KEY OR EXTREME POSES, AS IN-BETWEENS TEND TO BE WEAKER.



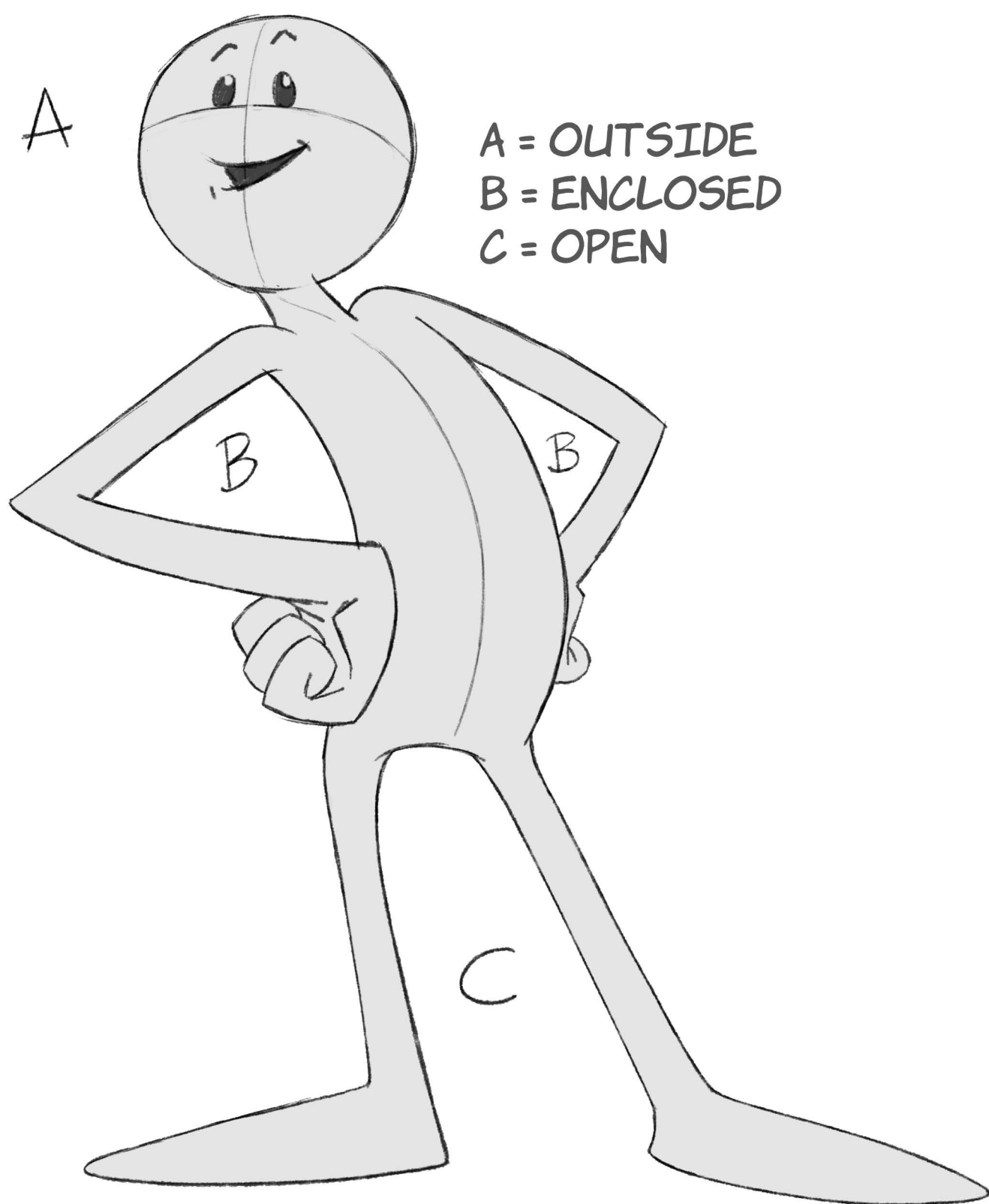
THE STRONGER THE SILHOUETTE, THE EASIER IT IS TO READ THE POSE.



SOME POSES ARE JUST HARDER TO CONVEY WITH SILHOUETTES. STILL, DO YOUR BEST!

O2_O2: NEGATIVE SPACES

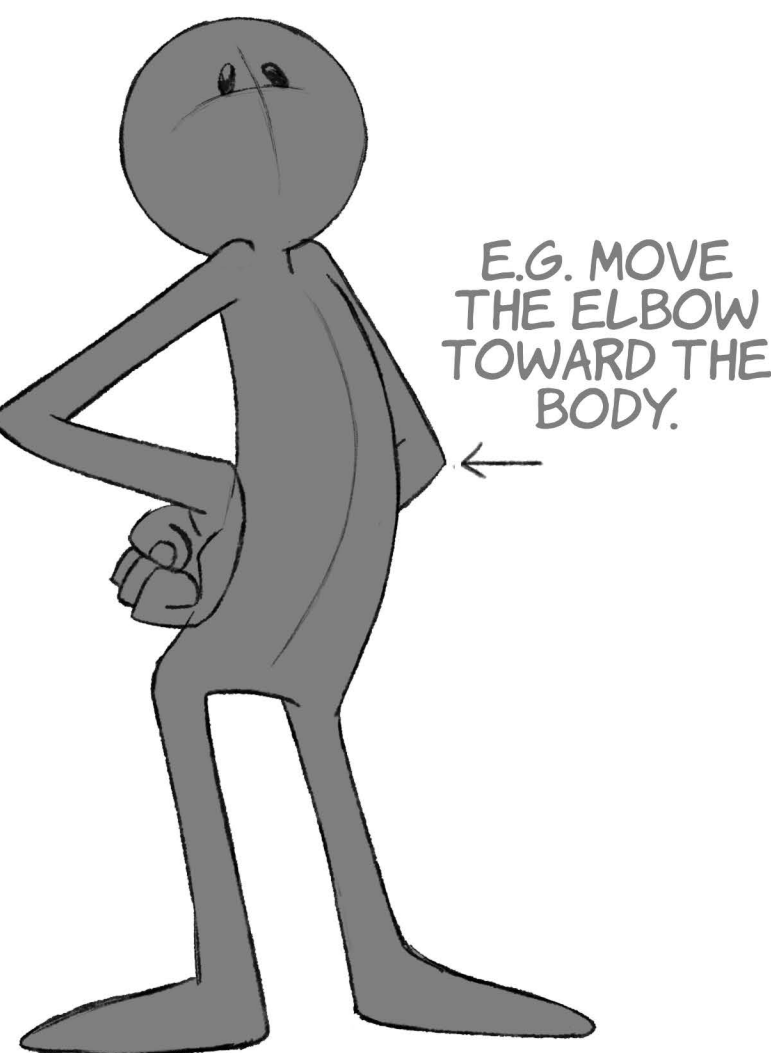
IDEALLY, ALL SPACES INSIDE AND OUTSIDE THE CHARACTER SHOULD BE VISUALLY STRONG.



DEPENDING ON THE POSE AND ANGLE, NEGATIVE SPACES SOMETIMES BECOME VERY SMALL.

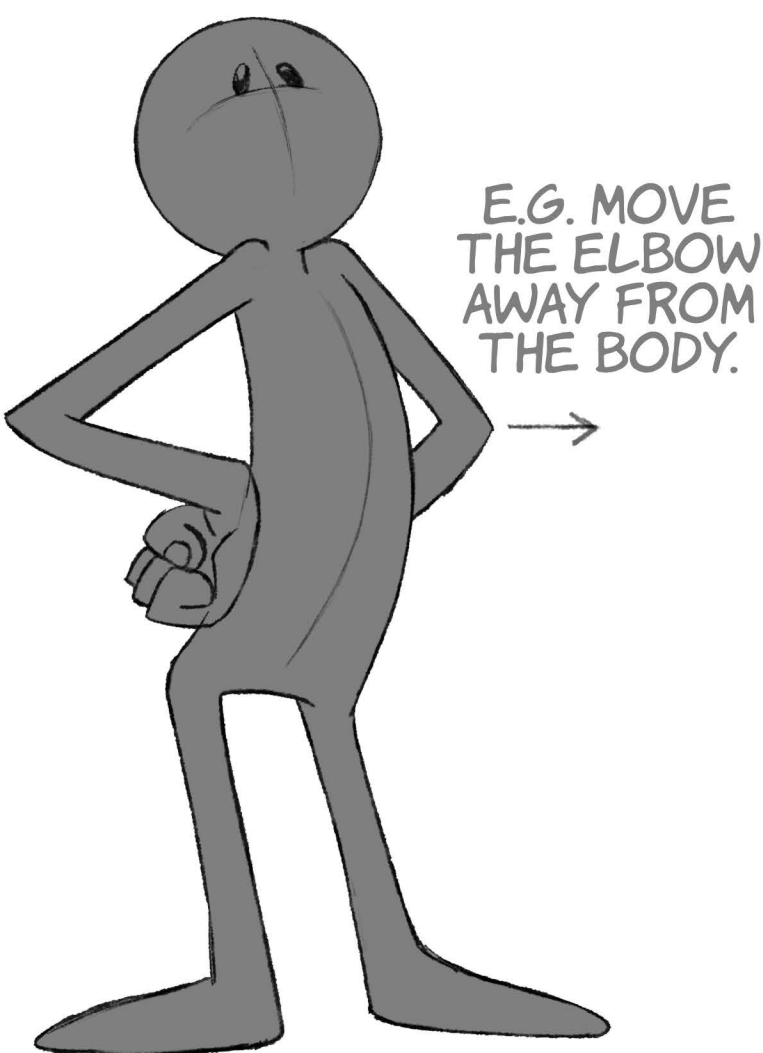


ELIMINATE IT COMPLETELY BY REPOSITIONING THE POSE.



OR

OPEN UP THE POSE TO ENLARGE THE SPACE.

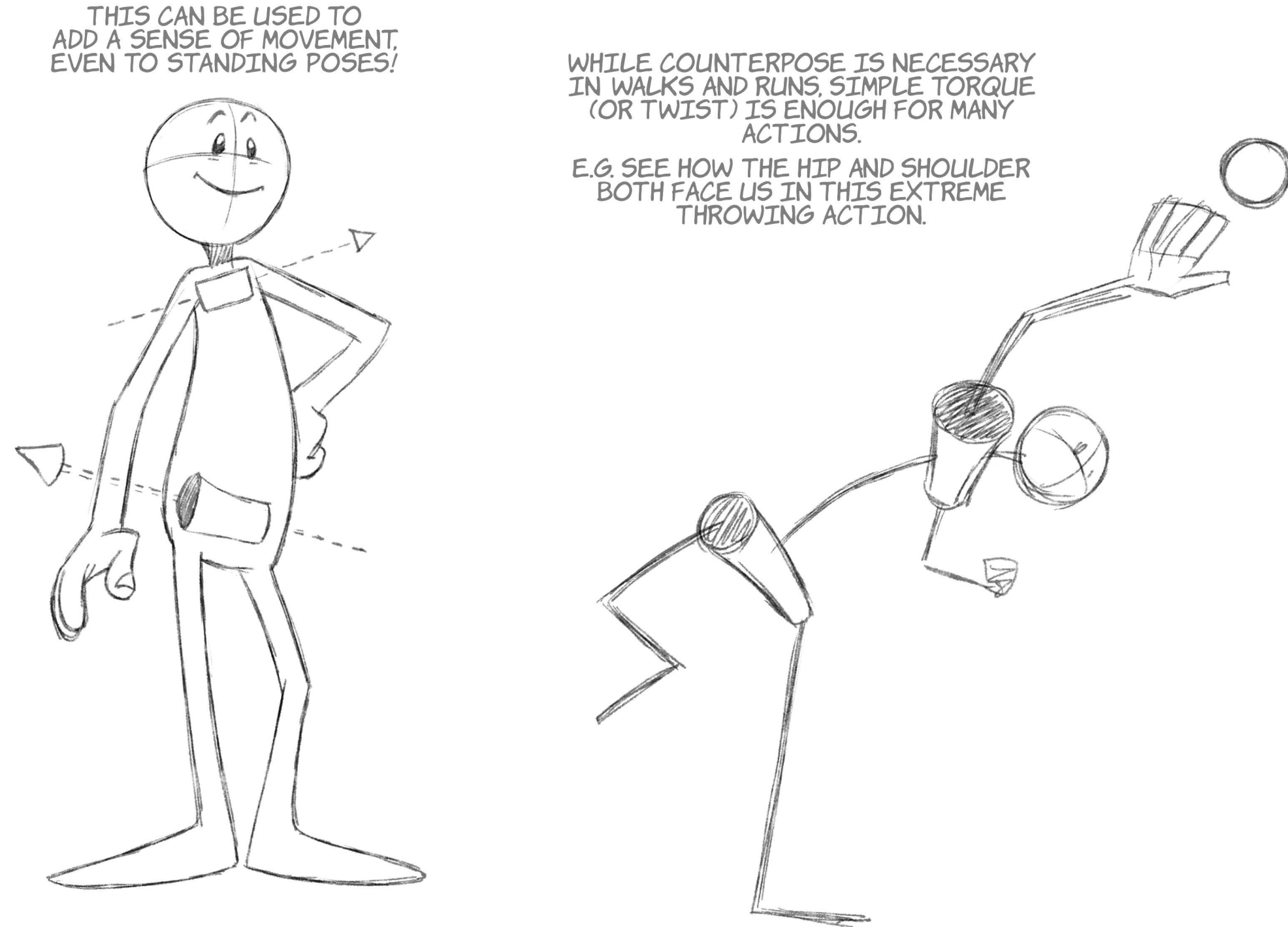
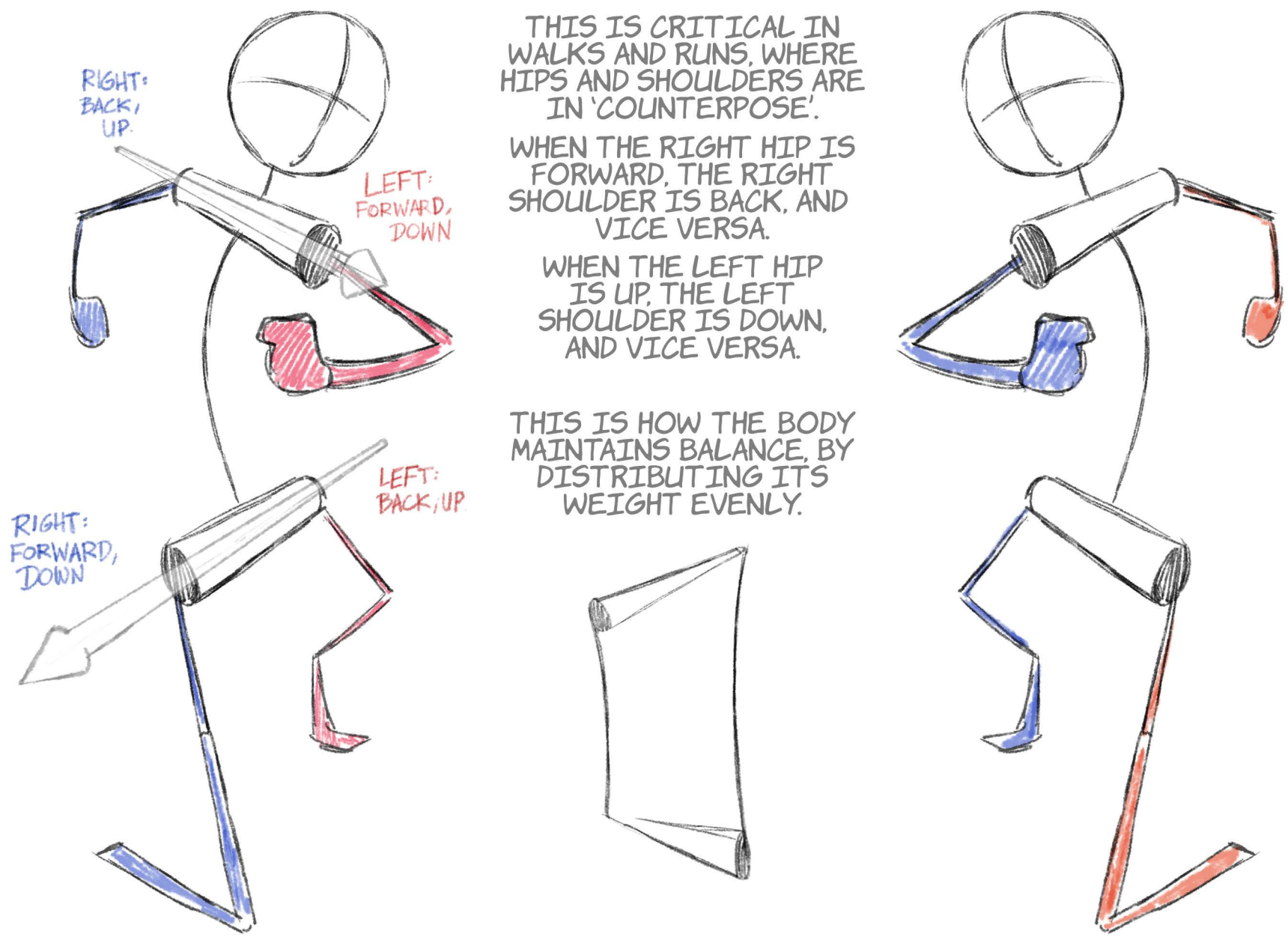
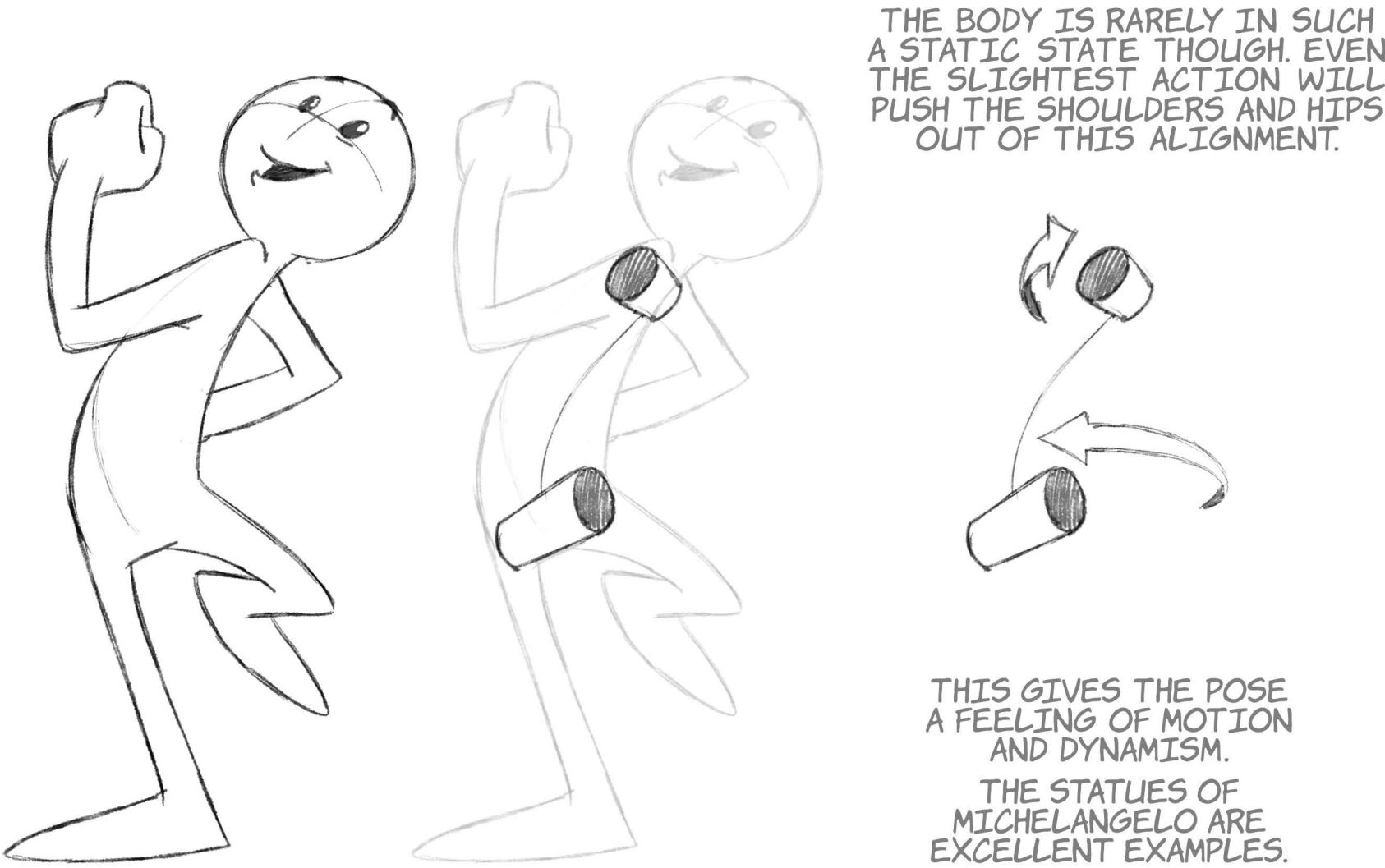
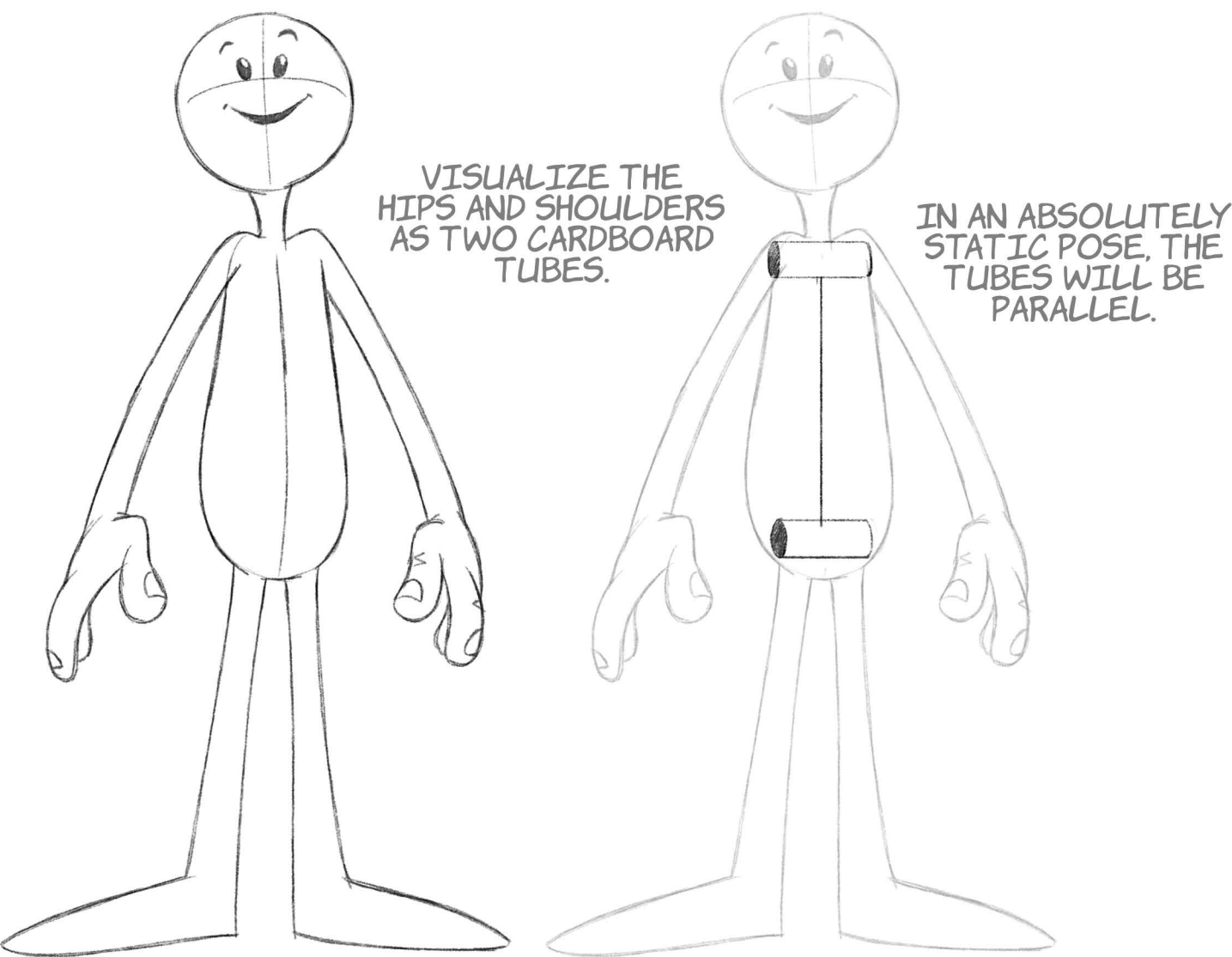


IF YOU'RE WORRIED ABOUT A NEGATIVE SPACE IN YOUR DRAWING NOT BEING INTERPRETED CORRECTLY BY A FOLLOW-UP ARTIST, AN 'X' CAN BE USED TO FLAG IT AS AN EMPTY SPACE, OR AIR.



SEE HOW ALL THESE PRINCIPLES WORK TOGETHER IN THIS FINISHED IMAGE. THE OVERALL SILHOUETTE IS CLEAR (THE MAN IS RUNNING IN TERROR); THE SHAPES THAT SURROUND HIM, SUCH AS THE SPACE BETWEEN HIS ARMS, AND THE ROPE FROM HIS WAIST ARE EASY TO INTERPRET, EVEN IN OUTLINE.

O2_O3: COUNTERPOSE / TORQUE



O2_04: EXAGGERATION

TAKE A POSE THAT'S
ALREADY APPROVED.



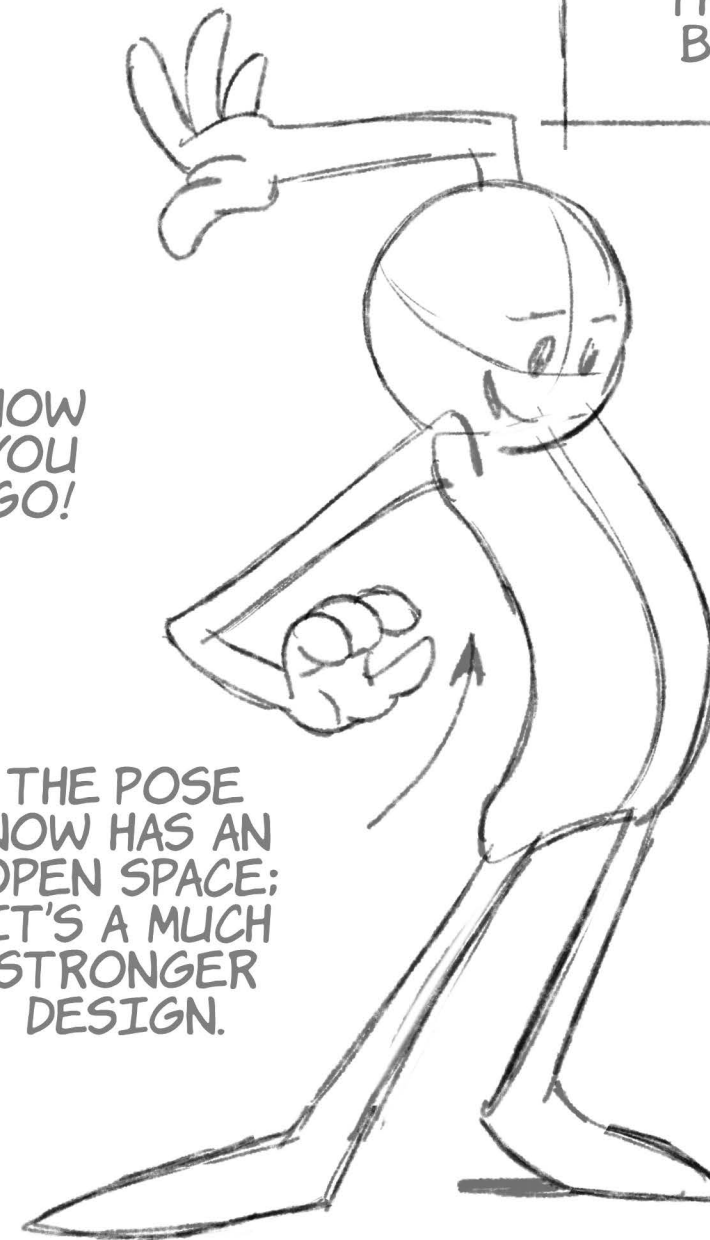
NOW PUSH
IT FURTHER.



NOW WE'RE GETTING
CARTOONY AND BROAD!

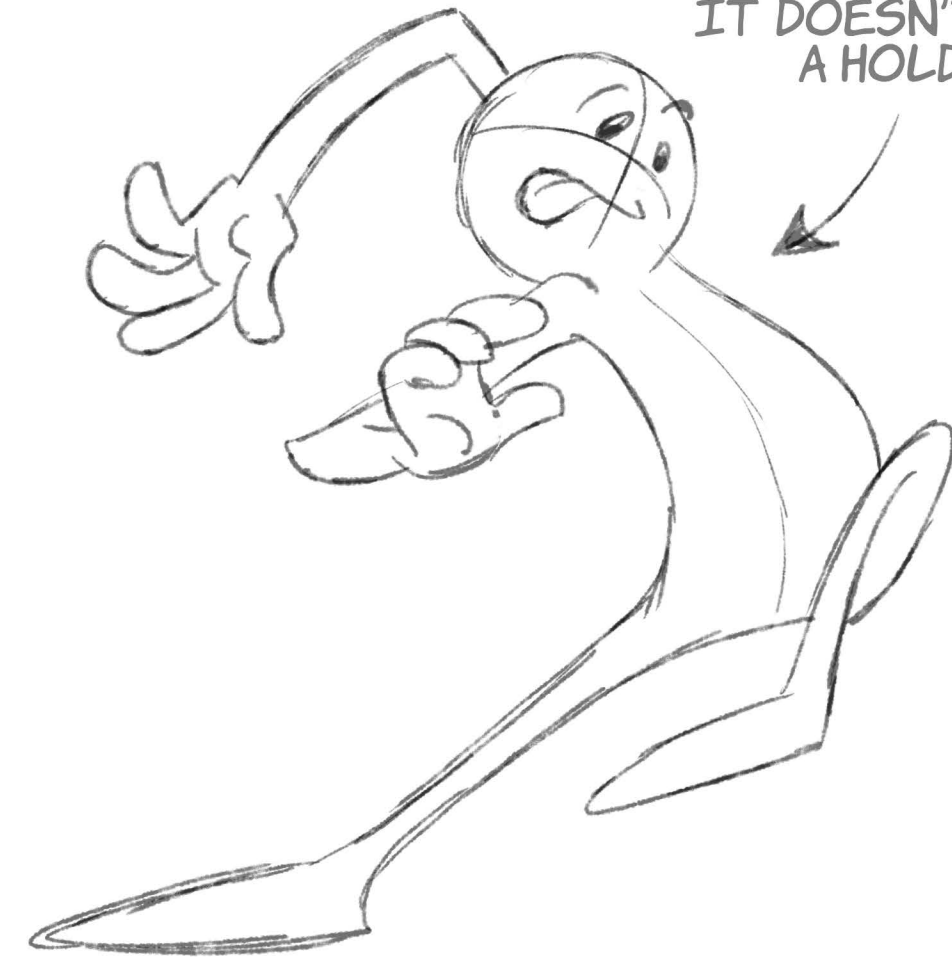
SEE HOW
FAR YOU
CAN GO!

THE POSE
NOW HAS AN
OPEN SPACE:
IT'S A MUCH
STRONGER
DESIGN.



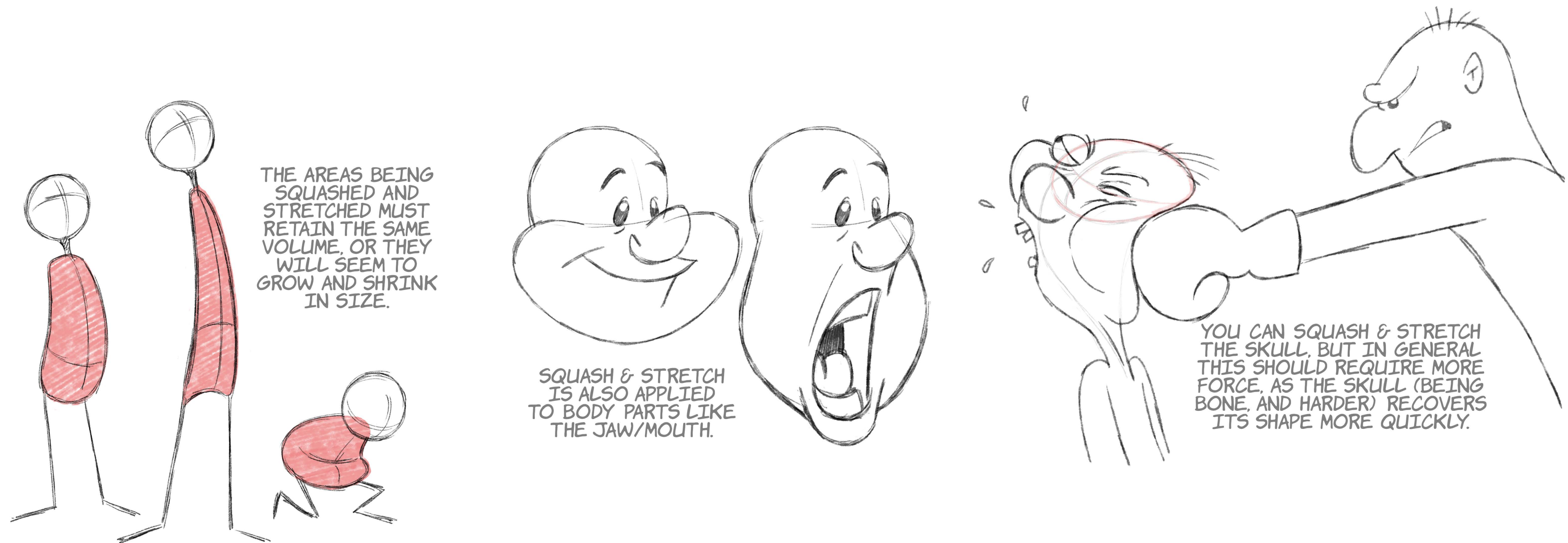
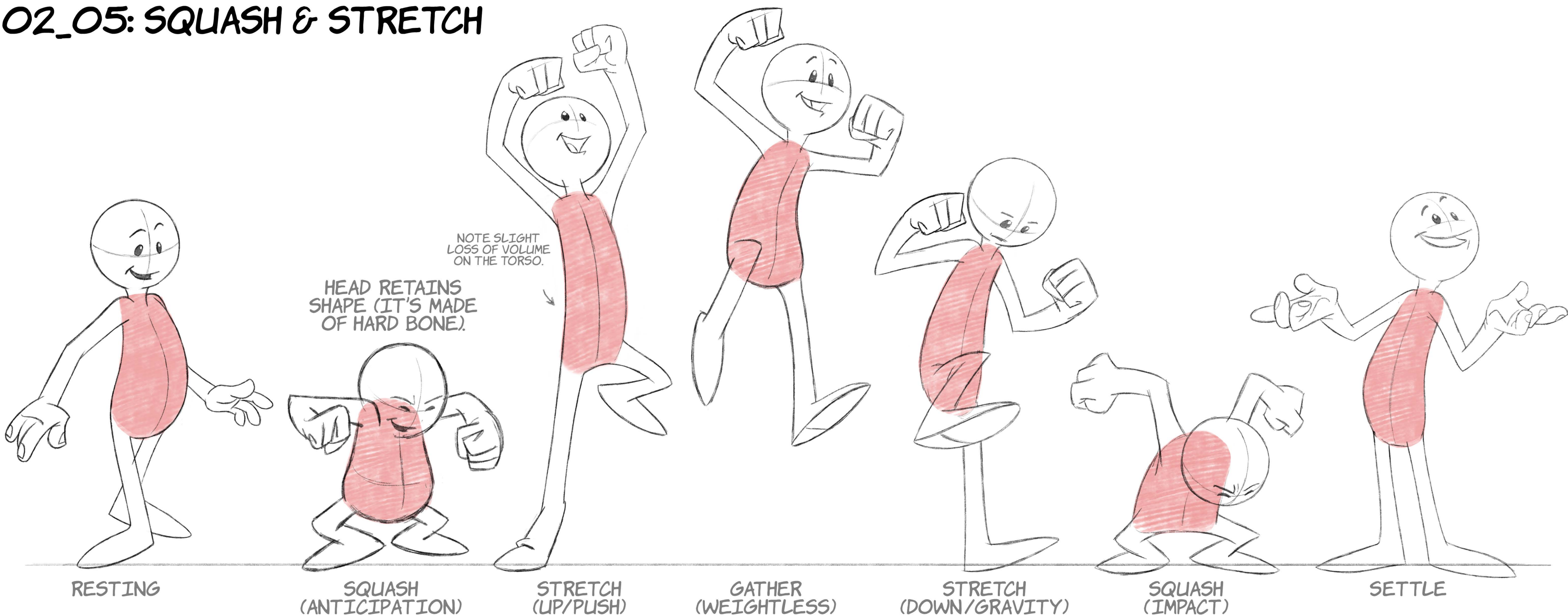
EVENTUALLY
OF COURSE,
THE POSE
BREAKS!

THIS POSE IS
TOO FAR. IT MIGHT
WORK AS A PART OF
A FAST ACTION, BUT
IT DOESN'T WORK AS
A HOLD POSE.

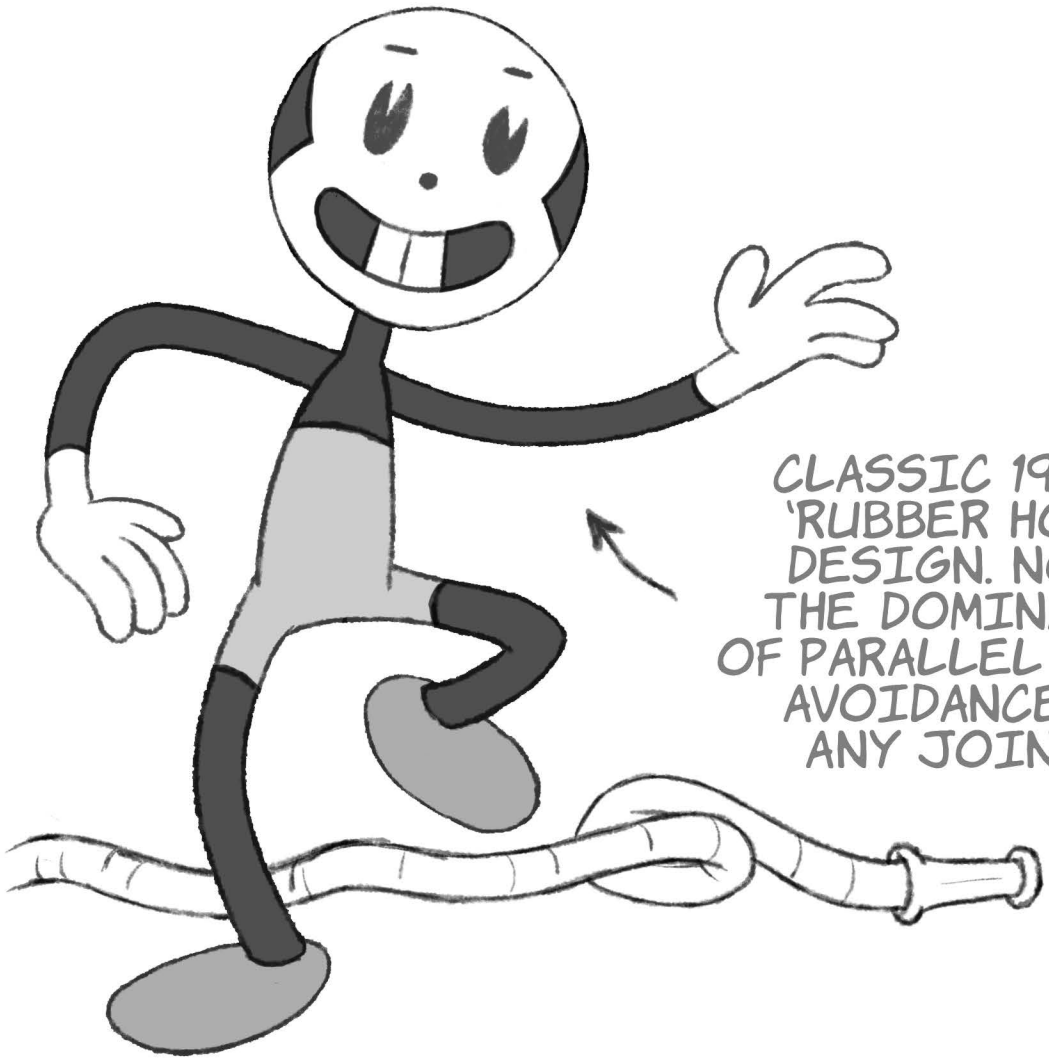


DON'T FORGET! THIS ALSO APPLIES TO FACIAL ACTING!

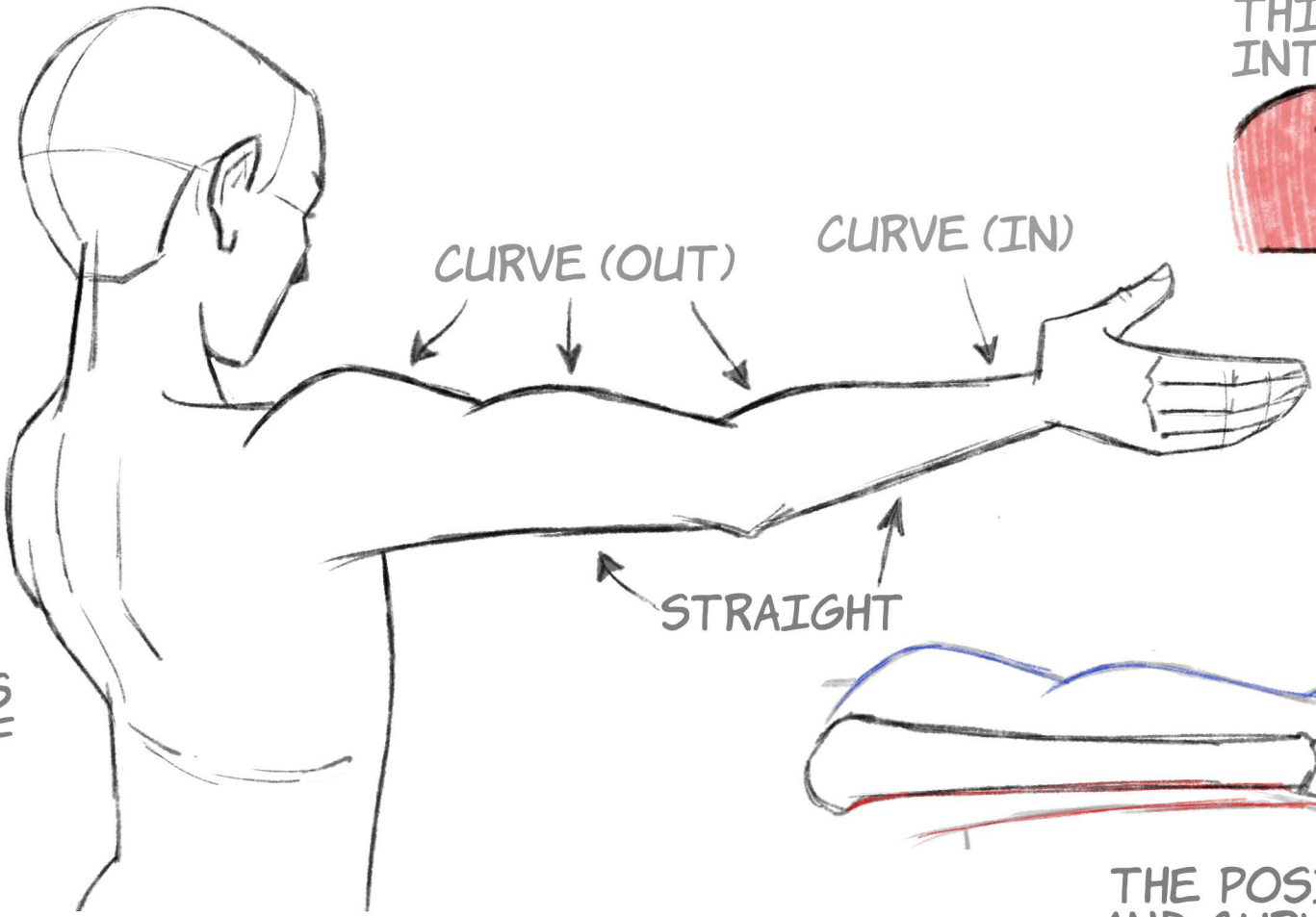
O2_O5: SQUASH & STRETCH



02_06: STRAIGHTS, CURVES & PARALLELS

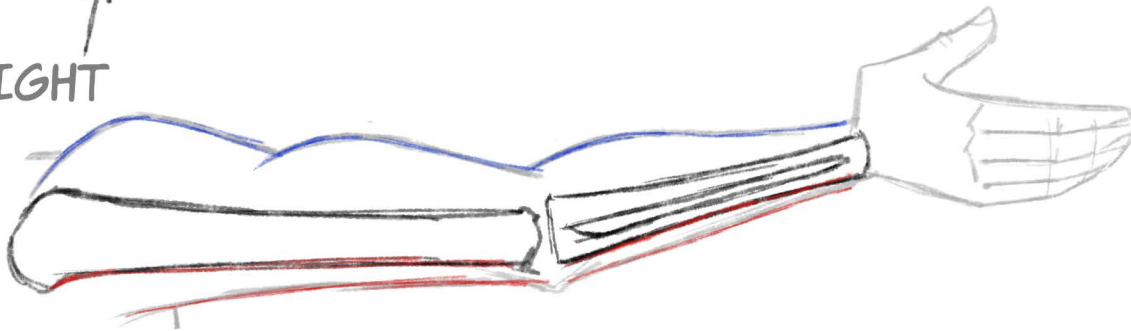
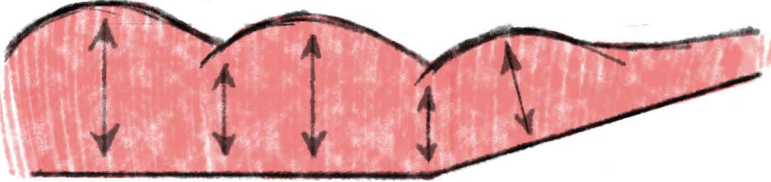


CLASSIC 1920S 'RUBBER HOSE' DESIGN. NOTE THE DOMINANCE OF PARALLEL LINES. AVOIDANCE OF ANY JOINTS.



MODERN DESIGNS USE A SYSTEM OF STRAIGHT VS. CURVED LINES.

THIS CREATES A VARIED AND INTERESTING INNER SPACE.

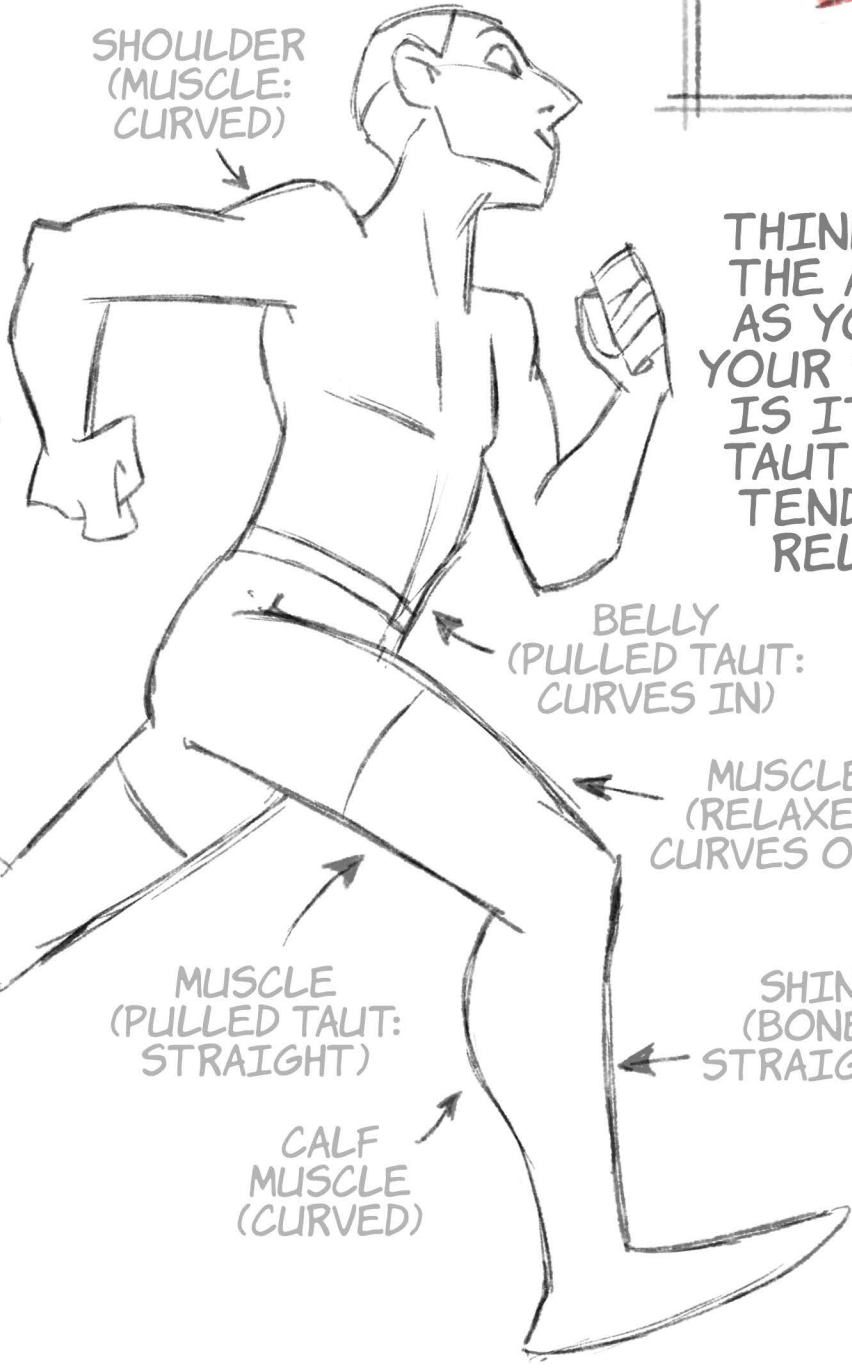


THE POSITION OF STRAIGHTS AND CURVES IS NOT ARBITRARY. IN THIS EXAMPLE, THE STRAIGHT LINES CORRESPOND WITH THE UNDERLYING **BONES**. THE CURVES CORRESPOND WITH **MUSCLE**.

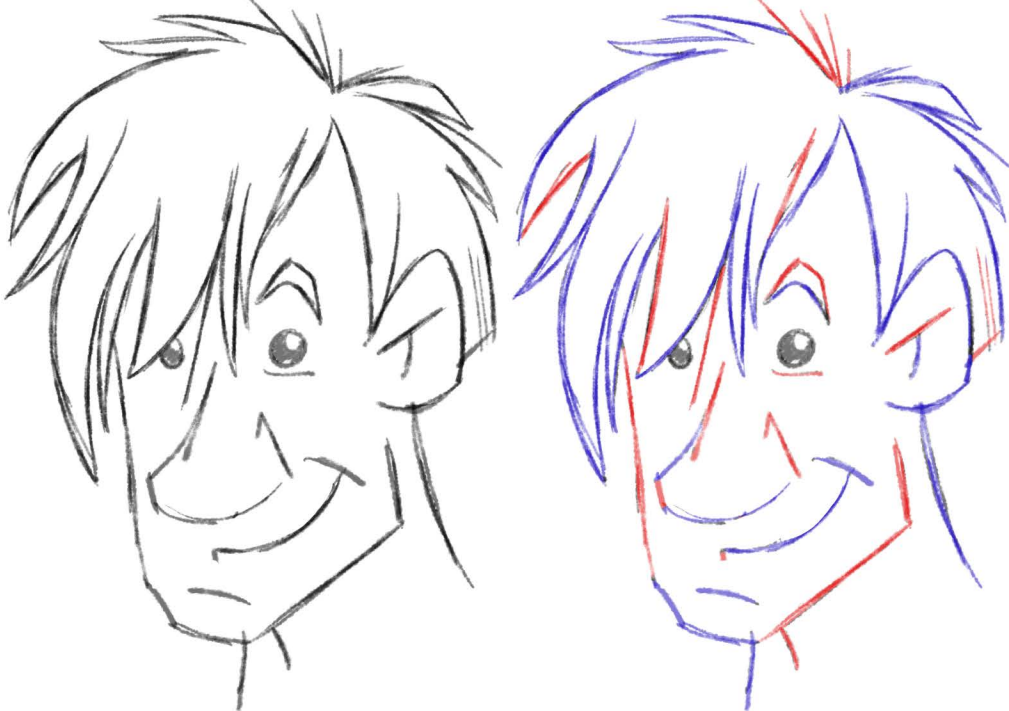
		PARALLELS
		STRAIGHTS VS. CURVES
		CURVES VS. CURVES

AVOID USING THIS TECHNIQUE JUST AS A MANNERISM. PUT STRAIGHTS & CURVES WHERE THE ANATOMY SUGGESTS THEY ARE MOST APPROPRIATE.

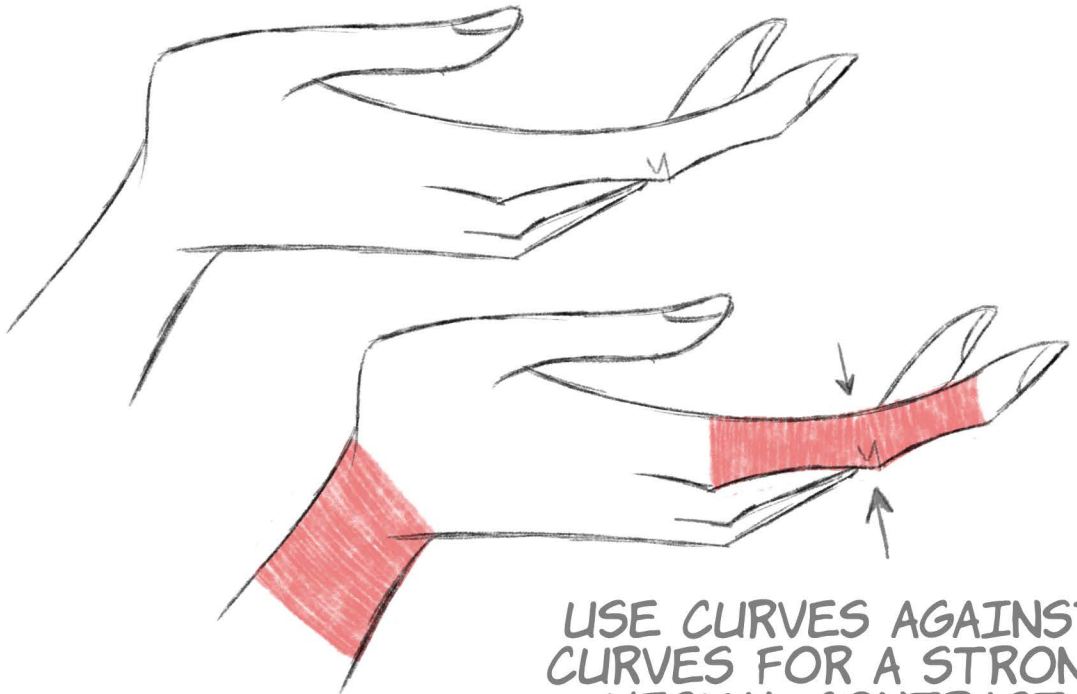
THERE MAY BE TIMES WHEN YOU CAN CHEAT OF COURSE. ALL RULES HAVE EXCEPTIONS!



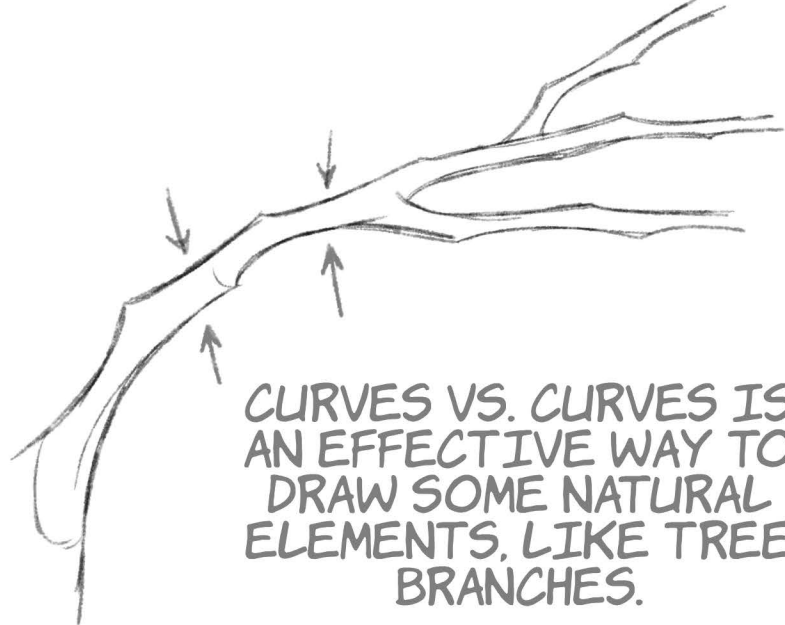
THINK ABOUT THE ANATOMY AS YOU MAKE YOUR STROKES. IS IT BONEY, TAUT MUSCLE, TENDONS OR RELAXED?



CORRECT USE OF **STRAIGHT** VS. **CURVES** CAN CREATE THE CLASSIC 60S/70S/EARLY 80S ANIMATION STYLE.



USE CURVES AGAINST CURVES FOR A STRONG VISUAL CONTRAST.



CURVES VS. CURVES IS AN EFFECTIVE WAY TO DRAW SOME NATURAL ELEMENTS, LIKE TREE BRANCHES.

02_06: STRAIGHTS, CURVES & PARALLELS

DESIGNS CAN BE MADE
FROM CURVES ALONE.

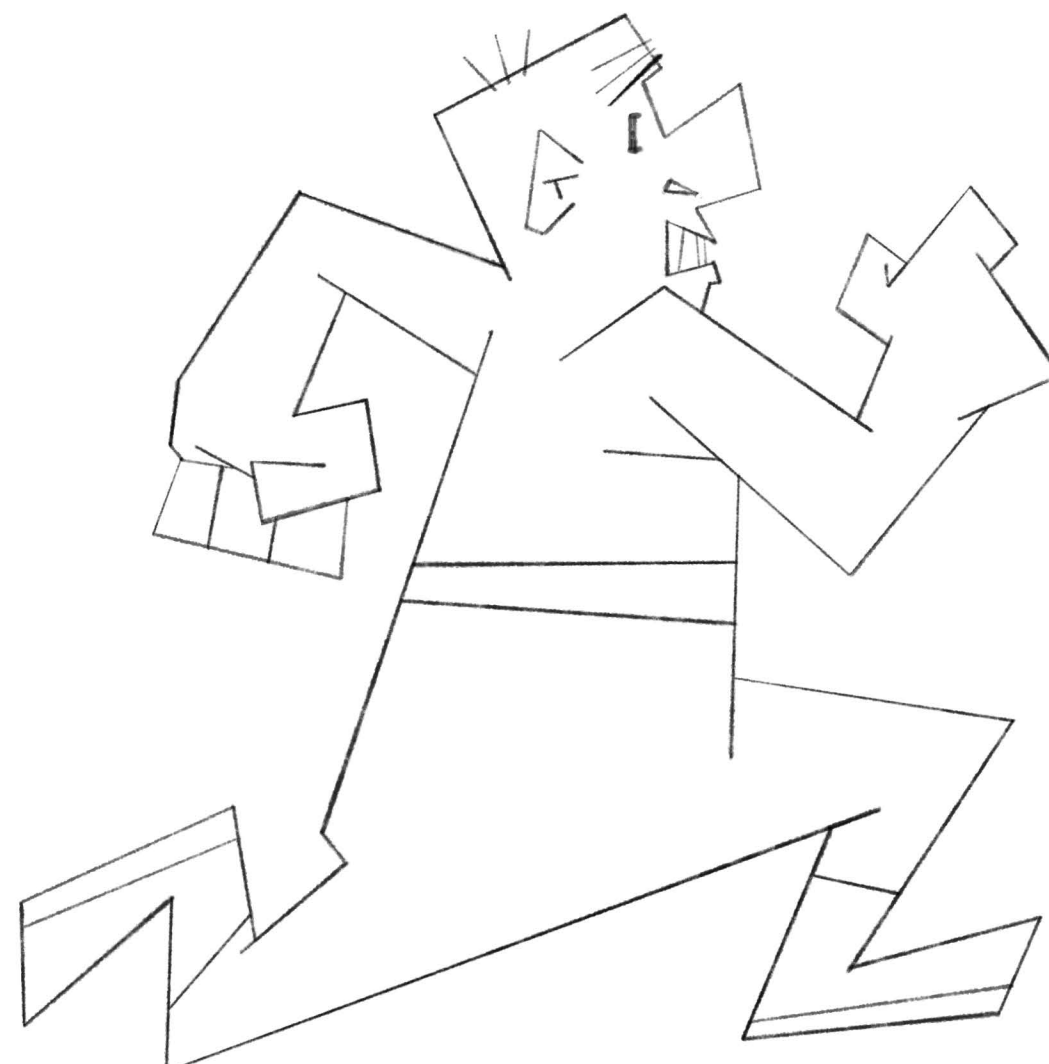


NOTE HOW THE CURVED
LINES ARE SPACED: THEY
OVERLAP, WHICH CREATES
A VARIED SHAPE.

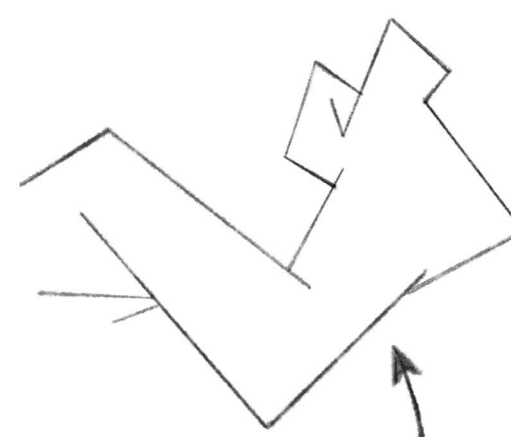


BY VARYING THE ROUNDNESS
OF THE CURVES, YOU CAN
CREATE SOMETHING MUCH
MORE INTERESTING THAN
A 'RUBBER HOSE' LINE.

DESIGNS CAN BE MADE
FROM STRAIGHTS ALONE.



THE OTHER EXTREME IS
STRAIGHTS ONLY. A VERY
AUSTERE, GRAPHIC LOOK,
EXTREMELY STYLIZED.



IF WORKING WITH STRAIGHTS,
IT'S STILL IMPORTANT TO
AVOID PARALLEL LINES.
KEEP THE SHAPES VARIED.

DESIGNS CAN BE MADE
FROM BOTH TOGETHER.



THE MOST FLEXIBLE STYLE IS
TO USE BOTH TOGETHER. PLACE
STRAIGHTS AGAINST CURVES
FOR A CLASSIC DESIGN LOOK.

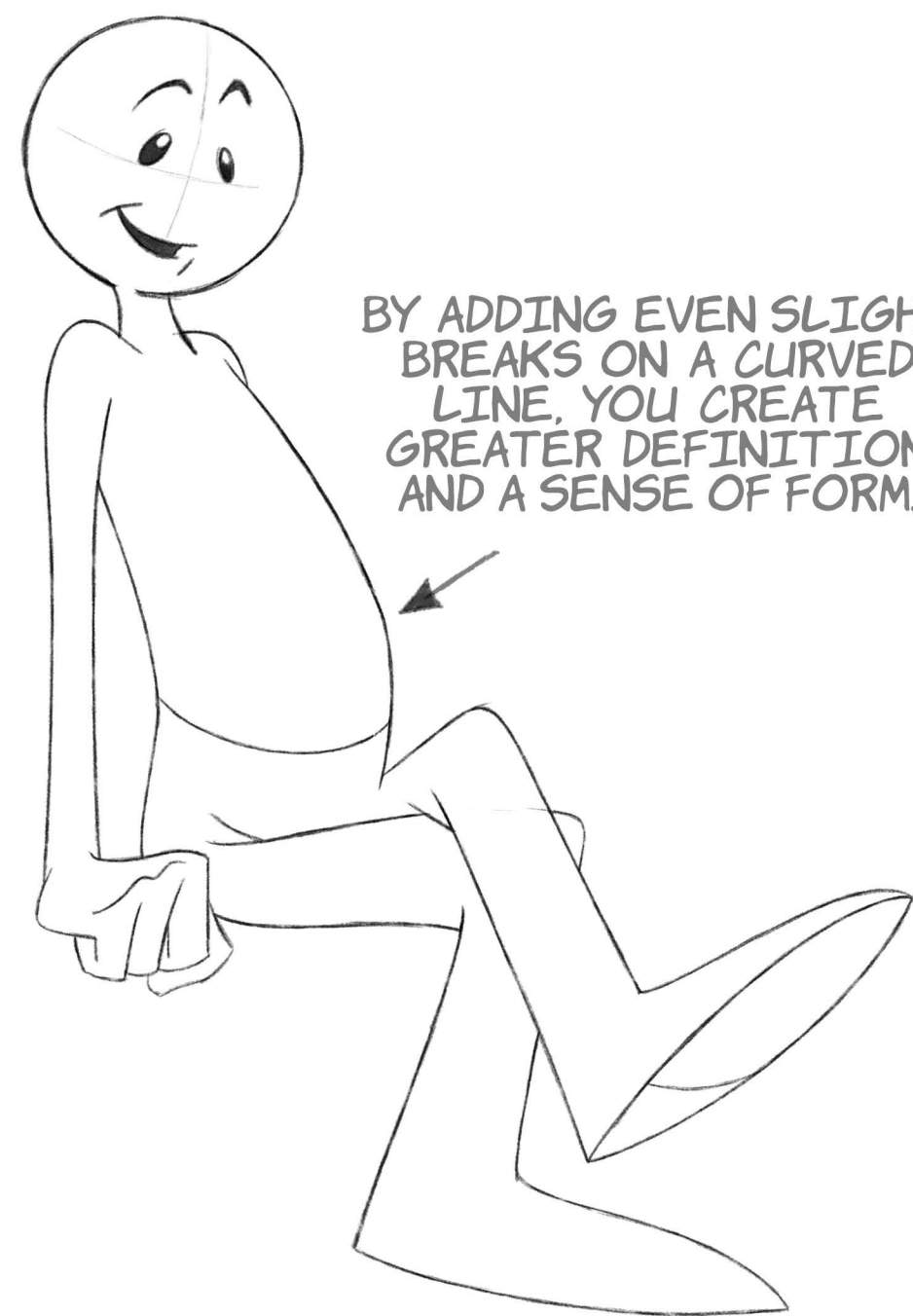
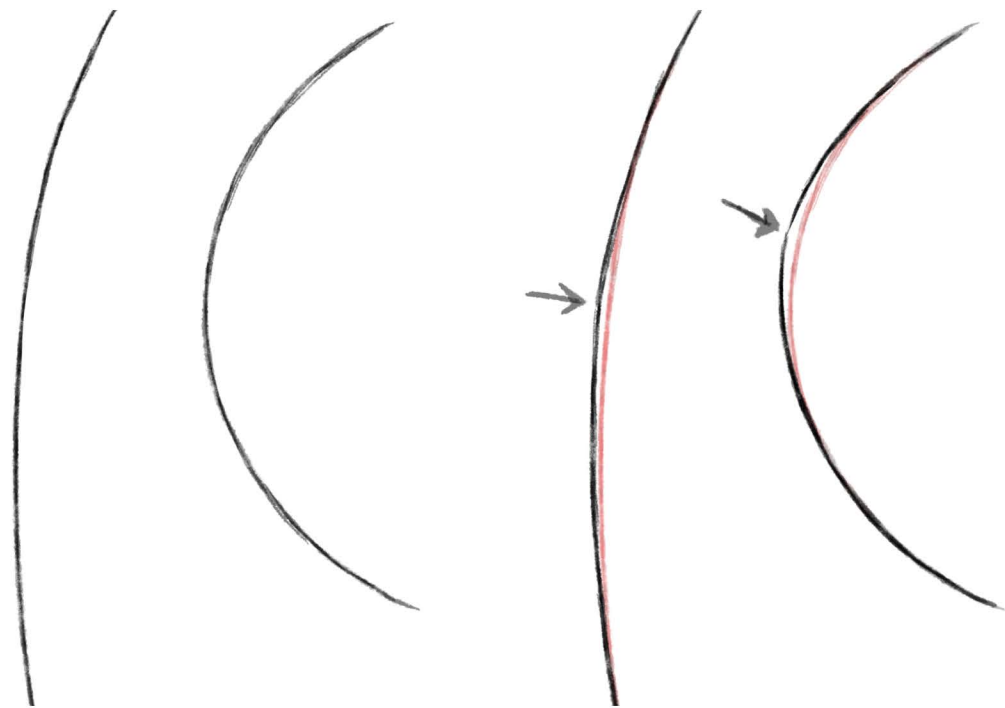


DRAWINGS DON'T HAVE TO
BE 50/50 CURVED/STRAIGHT;
APPLY VARIATIONS AS NEEDED.

02_07: BREAKS ON CURVES

A SIMPLE ARC OR CURVE IS A LIMITED TOOL WHEN DRAWING SUBTLE DESIGNS. BASIC CURVES CAN LACK INFORMATION ABOUT MASS & STRUCTURE. THIS IS WHY WE PUT 'BREAKS' ON CURVES.

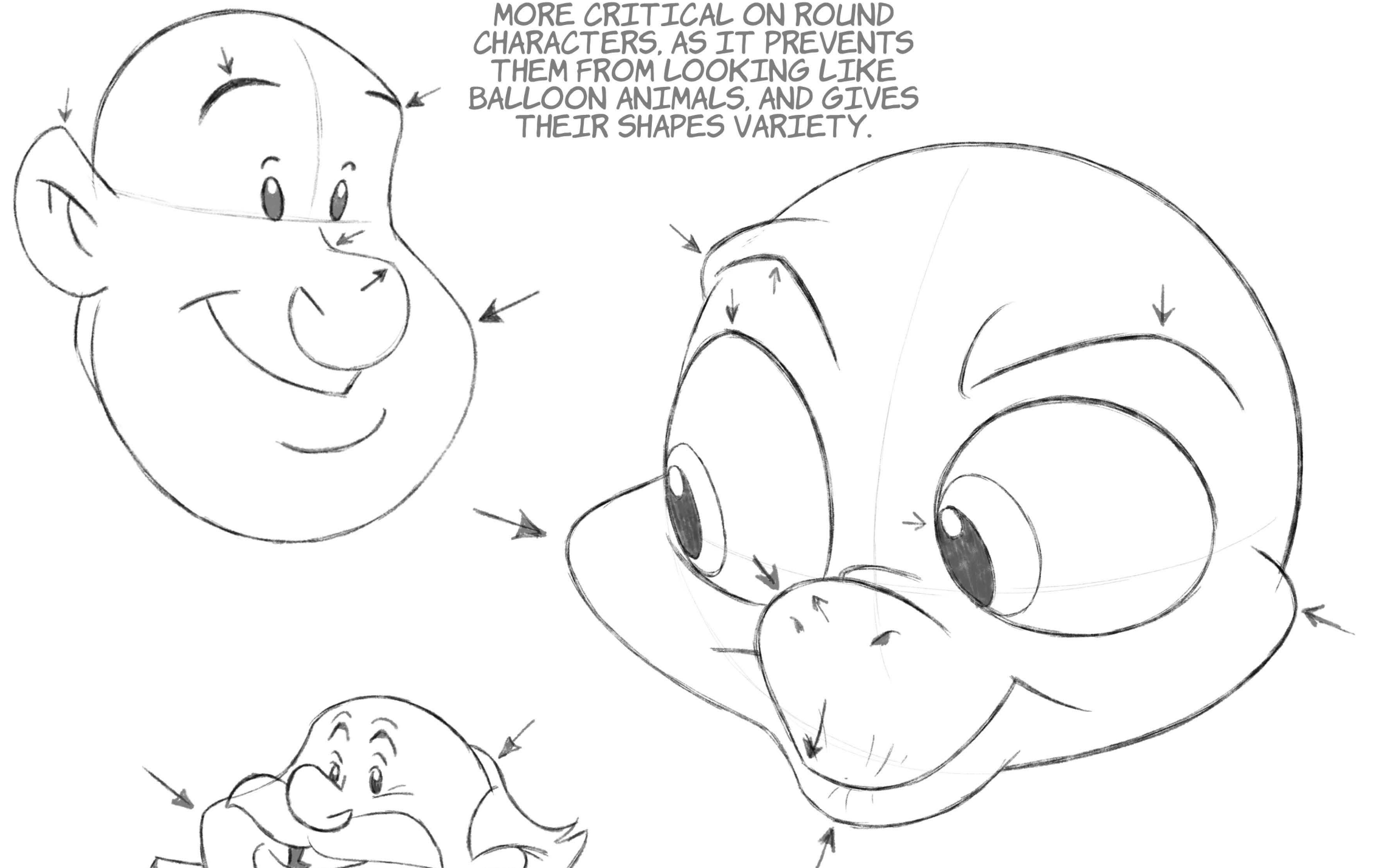
THE USE OF BREAKS IS EVEN MORE CRITICAL ON ROUND CHARACTERS, AS IT PREVENTS THEM FROM LOOKING LIKE BALLOON ANIMALS, AND GIVES THEIR SHAPES VARIETY.



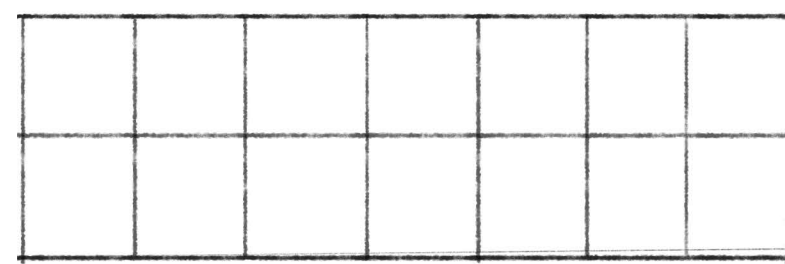
BY ADDING EVEN SLIGHT BREAKS ON A CURVED LINE, YOU CREATE GREATER DEFINITION AND A SENSE OF FORM.



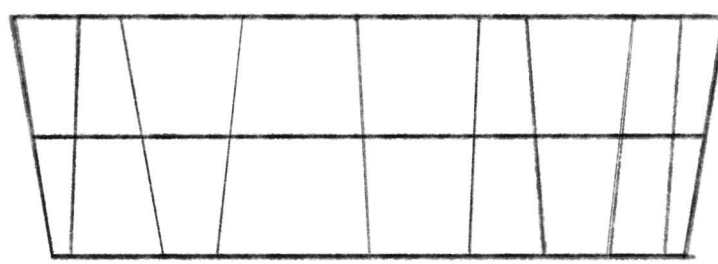
BREAKS ARE AN ESSENTIAL WAY TO DEFINE MASS/STRUCTURE. BREAKS IN THIS IMAGE DETERMINE THE CHEEKBONE, BROWLINE AND TIP OF THE NOSE AND EAR. THEY ALSO PRODUCE A MORE INTERESTING DESIGN.



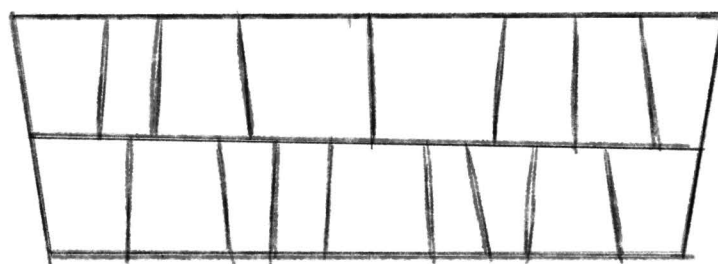
O2_O8: VARY SHAPES, ASYMMETRY & TEXTURE



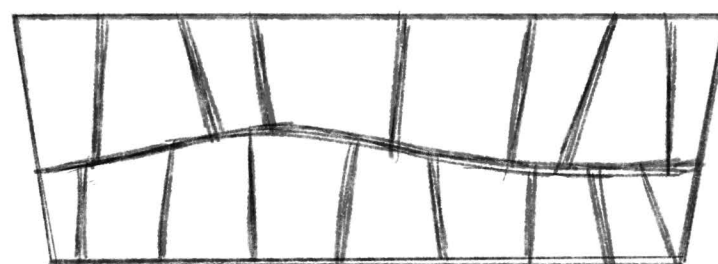
REPETITIVE SHAPES CAN LOOK TOO MECHANICAL (UNLESS YOU NEED YOUR DESIGN TO LOOK SO).



EVEN A SMALL VARIATION OF THE VERTICALS MAKES THE TEETH SEEM MORE NATURAL.



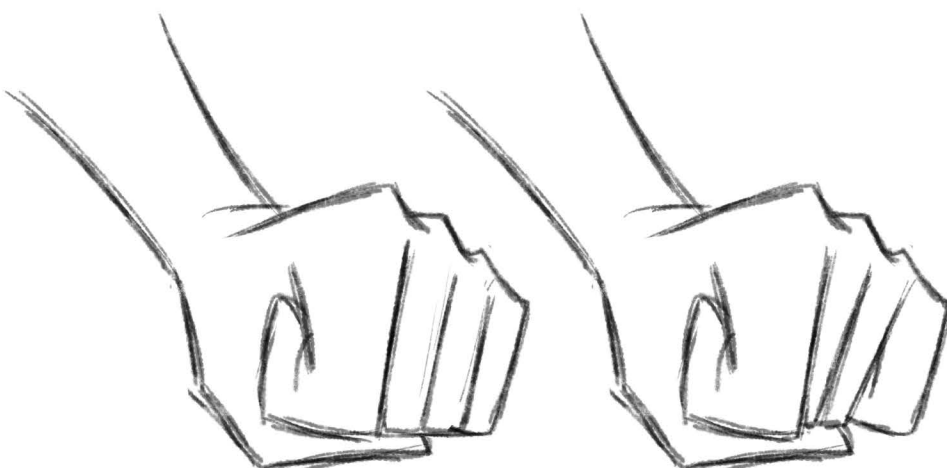
OFFSETTING THE VERTICALS INCREASES THE NATURALISM.



APART FROM THE STRAIGHT MOUTH BORDER, THE TEETH NOW SEEM MORE NATURAL.



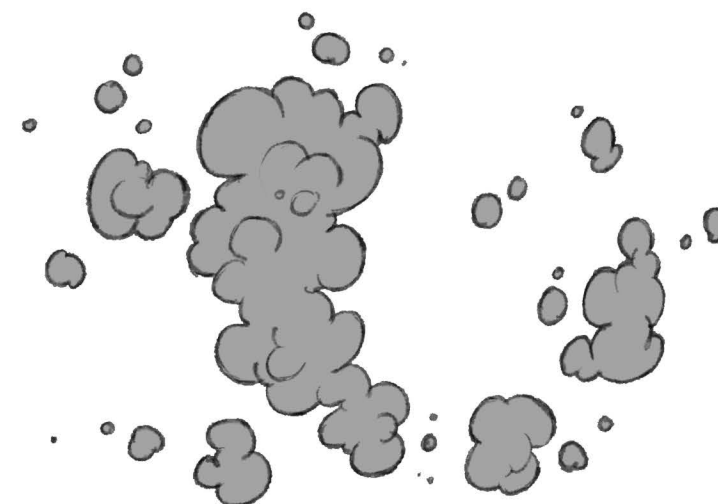
FINALLY, A CURVED OUTLINE FOR THE MOUTH COMPLETES THE EFFECT.



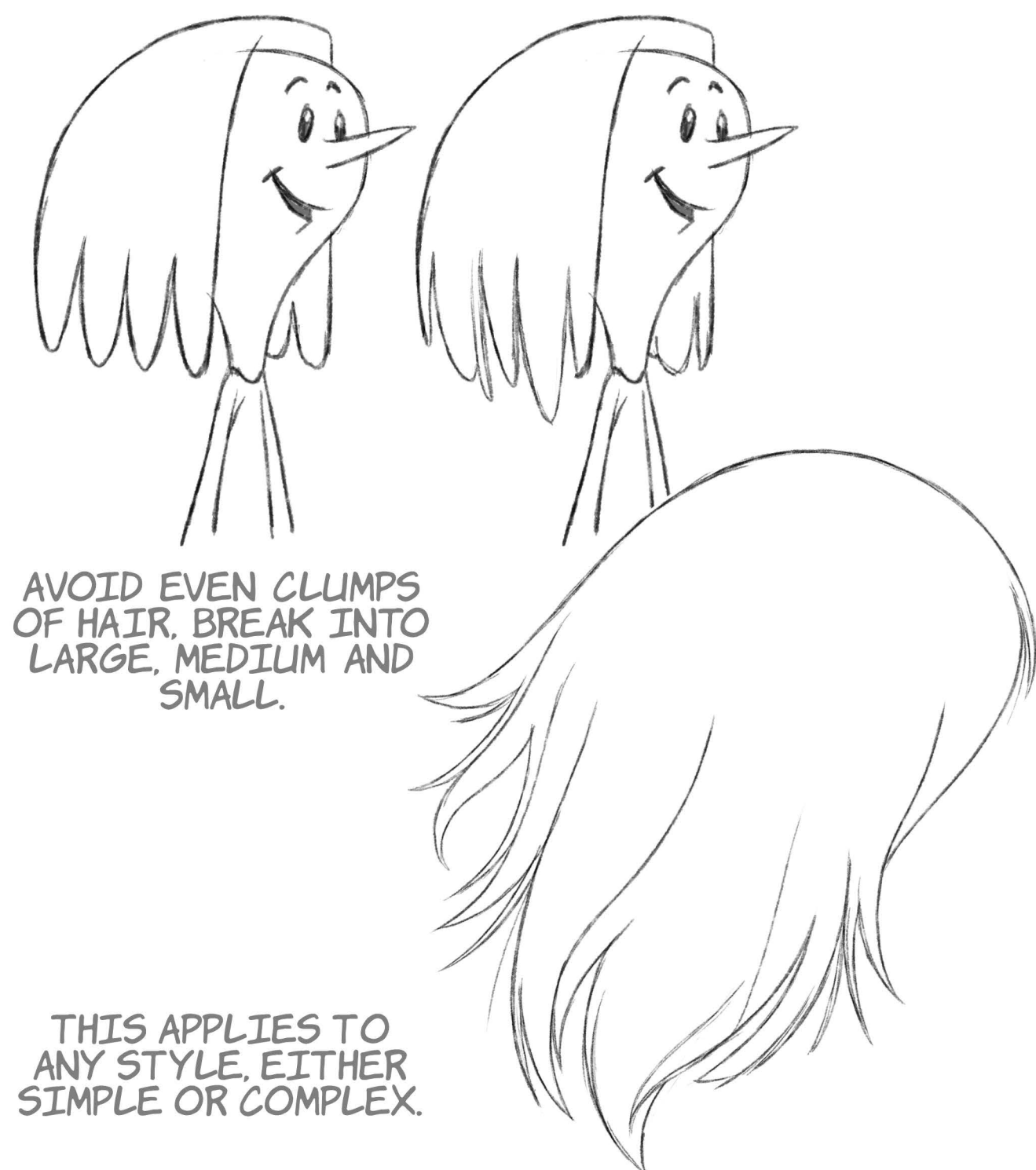
BY VARYING THE SPACING & SHAPE OF THE FINGERS, A MORE NATURAL DESIGN IS PRODUCED.



THE LEFT HAND IN THIS EXAMPLE LOOKS FINE, BUT THE RIGHT LOOKS LOOSER.

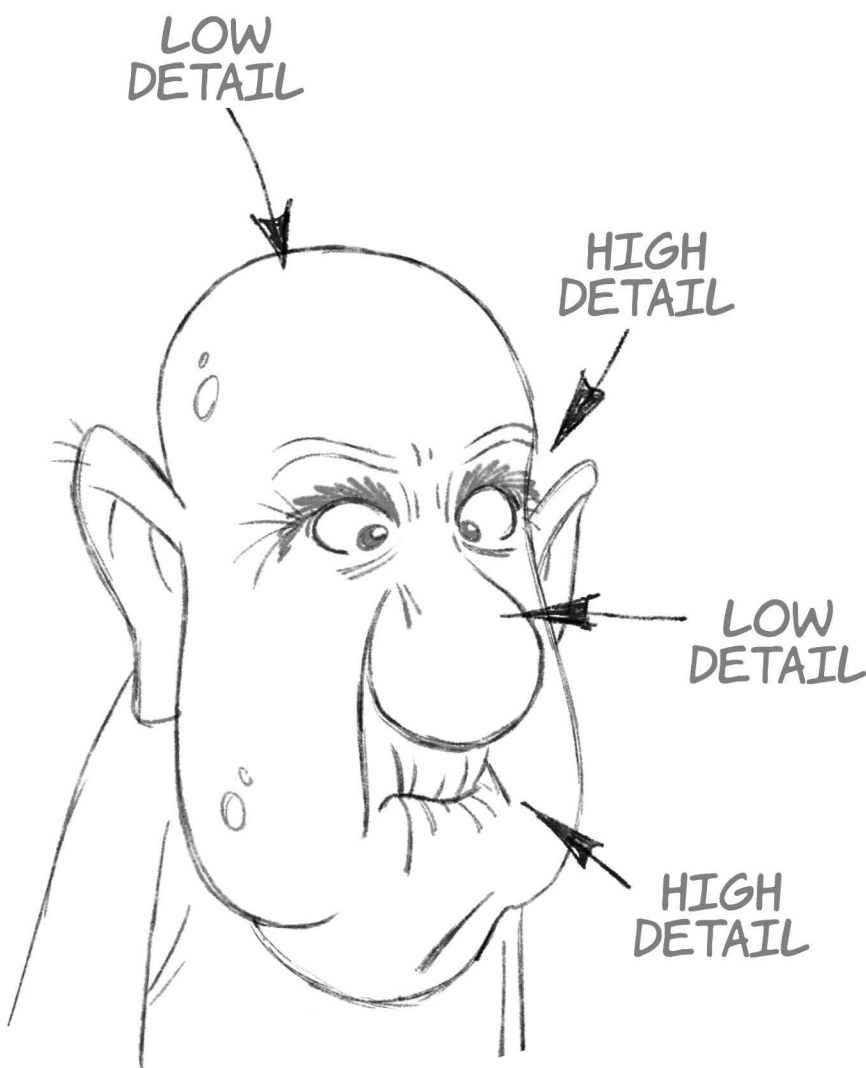


THE PRINCIPLE OF IRREGULAR SHAPES/ASYMMETRY IS CRUCIAL WHEN DRAWING NATURAL FX, LIKE SMOKE, FIRE, WATER, ETC.

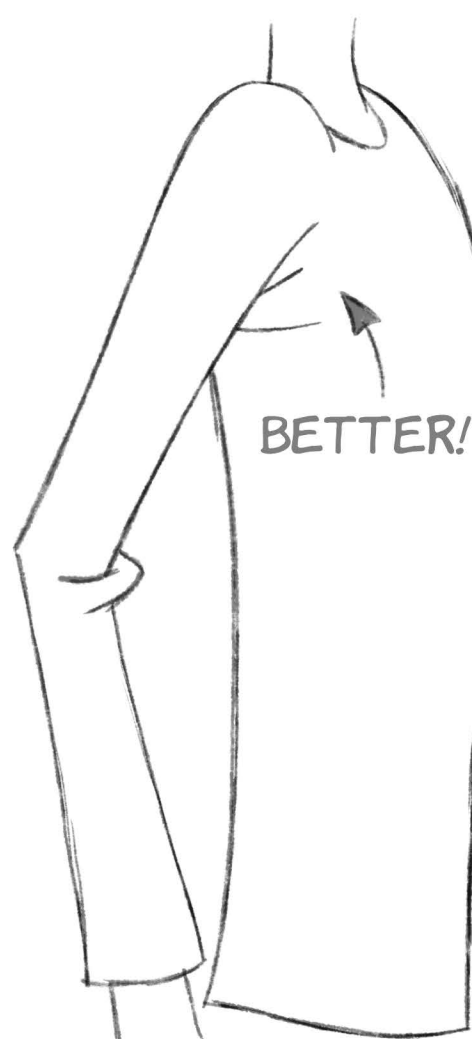


AVOID EVEN CLUMPS OF HAIR. BREAK INTO LARGE, MEDIUM AND SMALL.

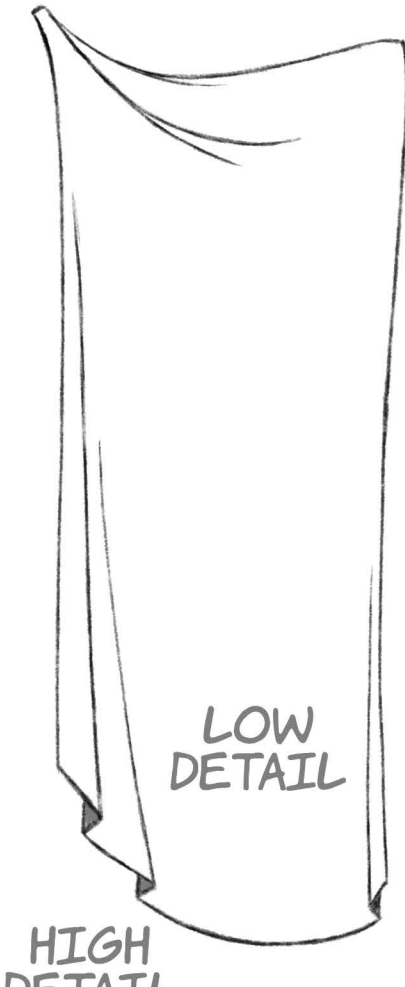
THIS APPLIES TO ANY STYLE, EITHER SIMPLE OR COMPLEX.



TOO EVEN: LOOKS BLAND.



VARIED SHAPE & SPACING: BETTER!



LOW DETAIL

HIGH DETAIL

02_09: POINT OF ORIGIN

POINTS OF ORIGIN ARE USED TO DETERMINE THE ORIGIN OF MANY LINES ON THE CHARACTER.

THE MOST OBVIOUS EXAMPLE OF A POINT OF ORIGIN IS THE CREAMING OF FABRIC.

NOTE HOW THE ARMPIT CREASES ORIGINATE FROM A SINGLE HIDDEN POINT. ALL THE JOINT FOLDS ON THIS DRAWING EMERGE FROM SUCH POINTS.

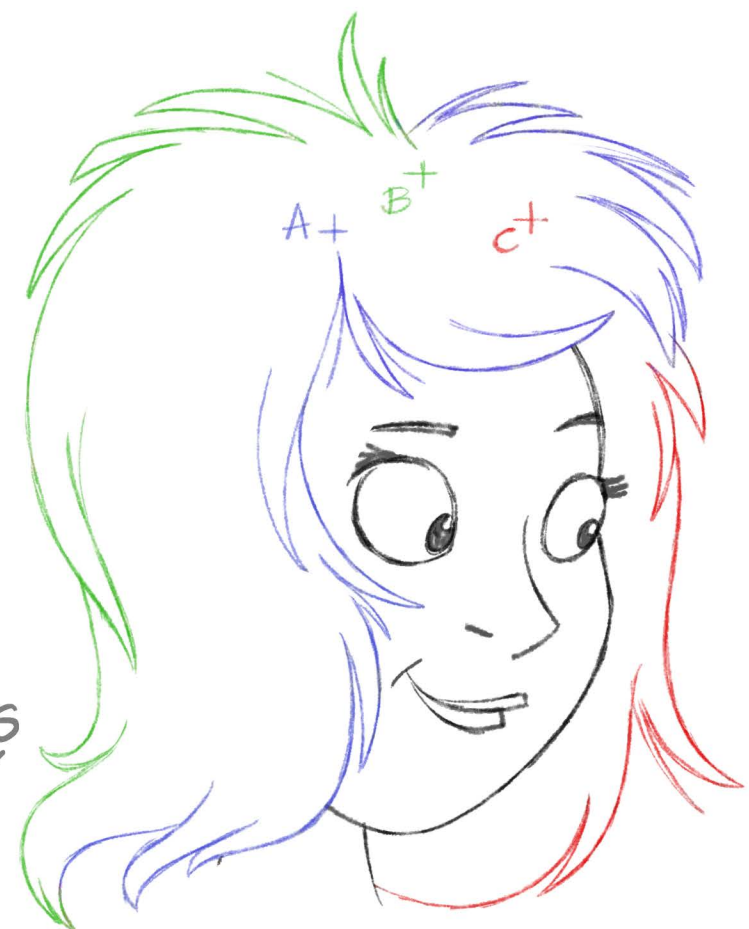
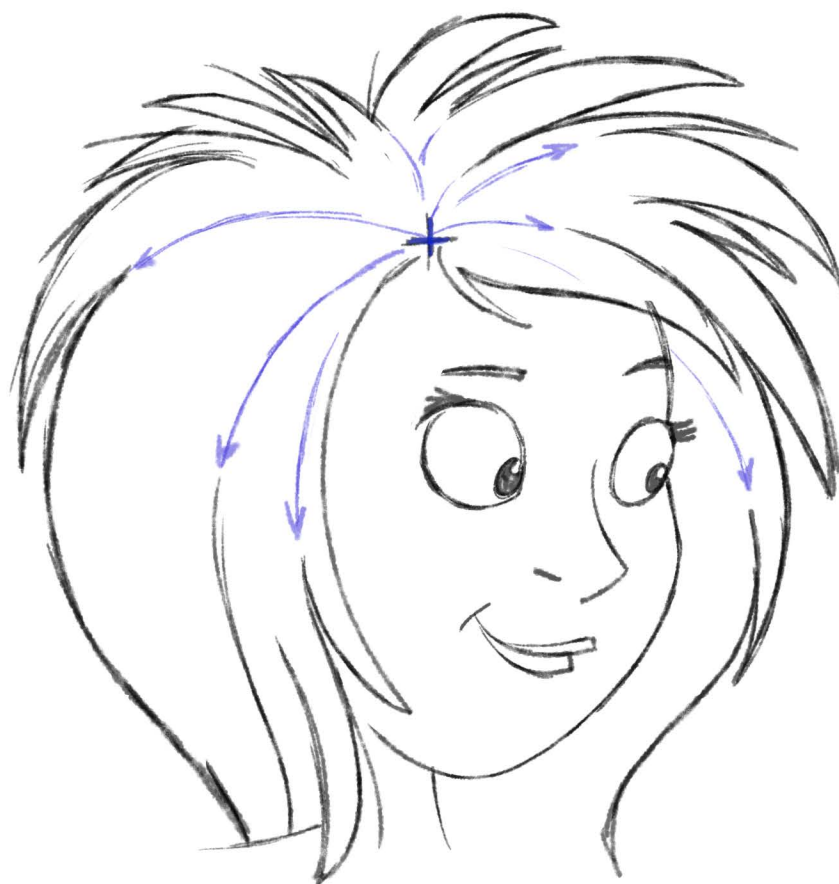
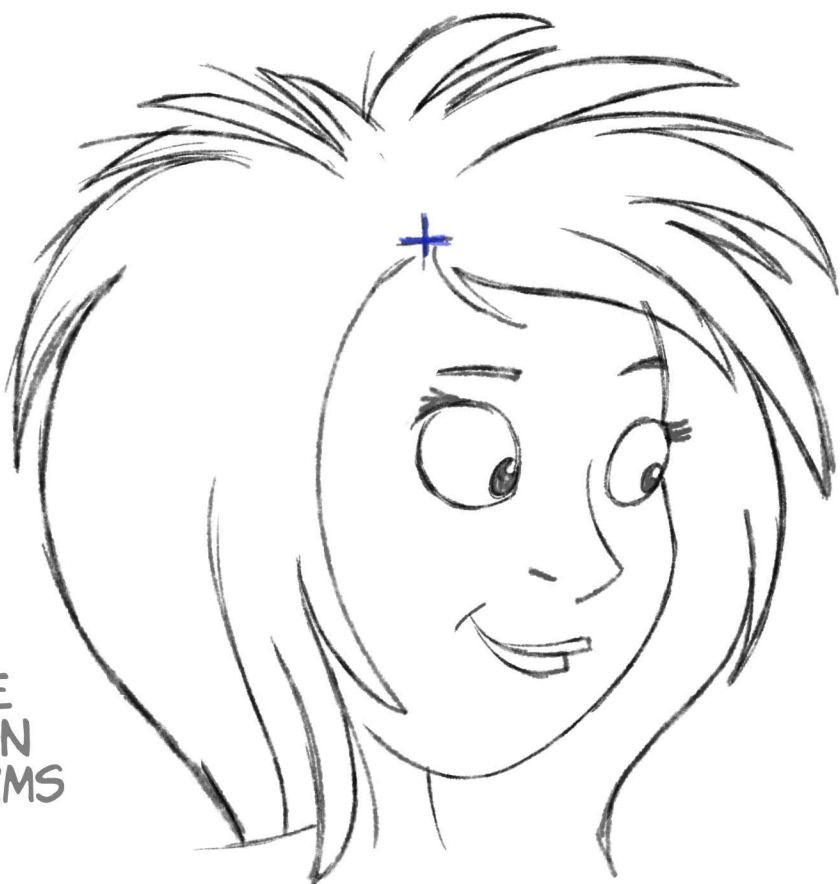
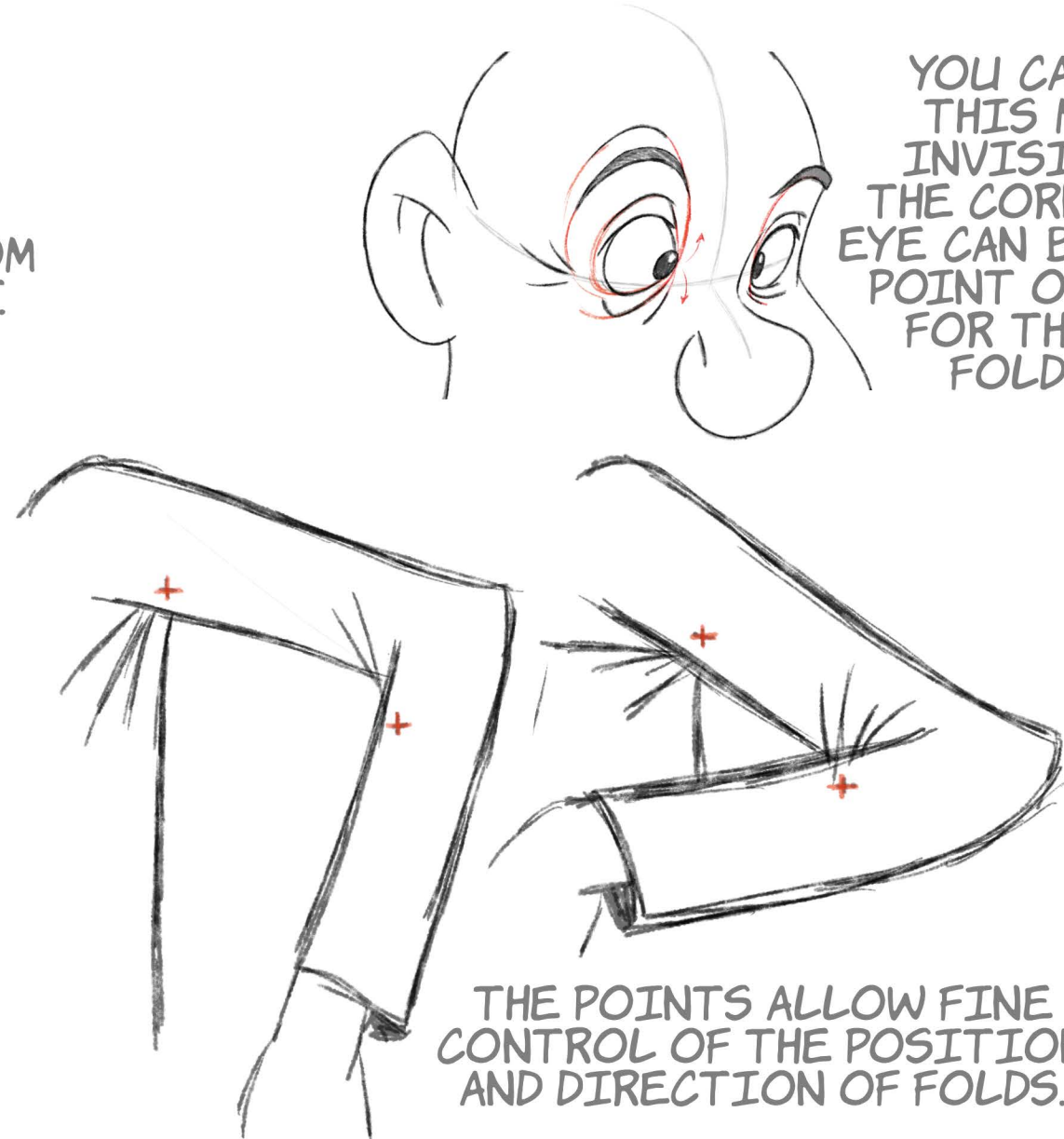
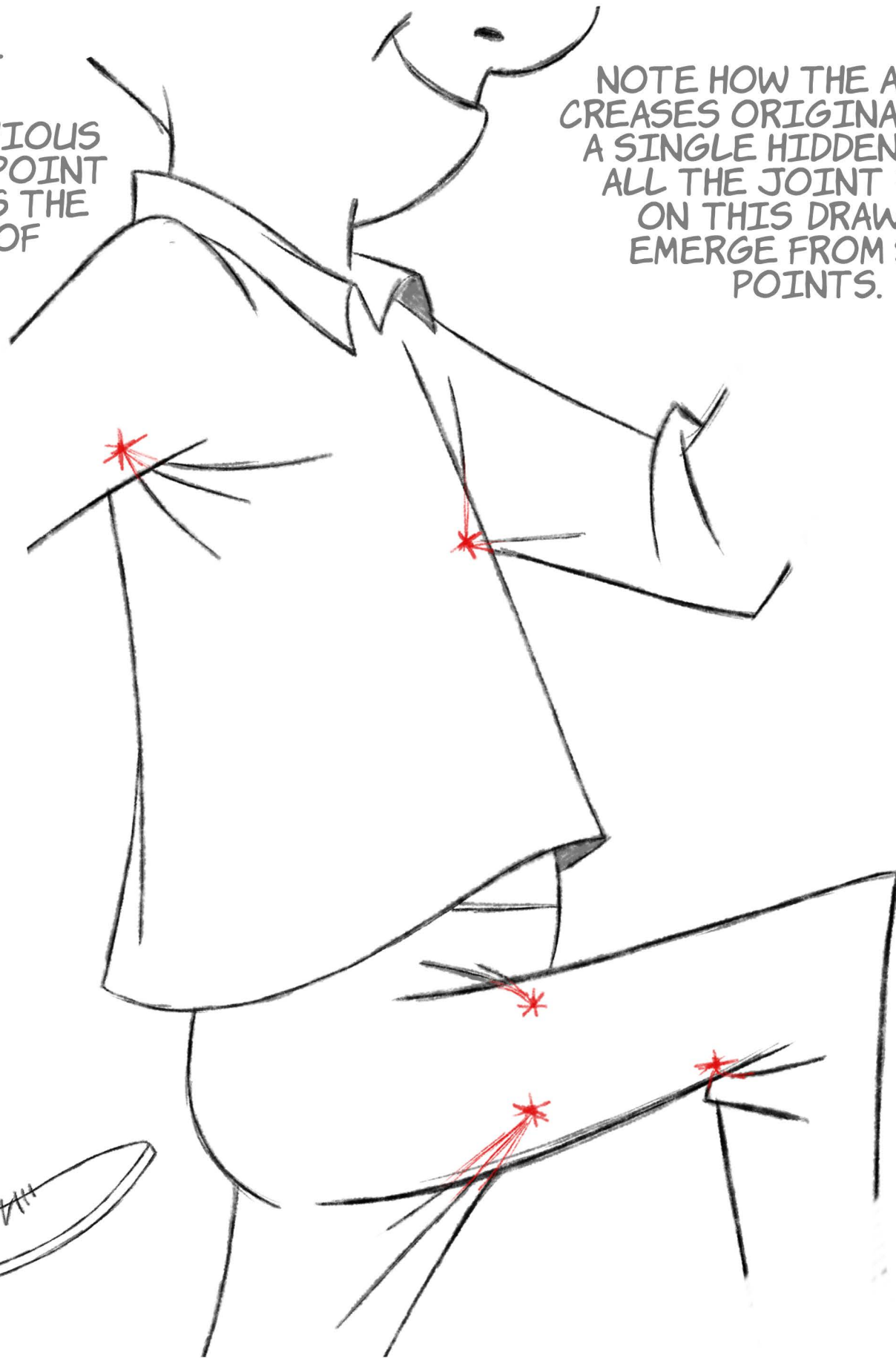
YOU CAN APPLY THIS METHOD INVISIBLY, E.G. THE CORNER OF AN EYE CAN BE A LOOSE POINT OF ORIGIN FOR THE BROW, FOLDS, ETC.

THE POINTS ALLOW FINE CONTROL OF THE POSITION AND DIRECTION OF FOLDS.

POINTS OF ORIGIN CAN BE APPLIED TO VERY DIFFERENT STYLES.

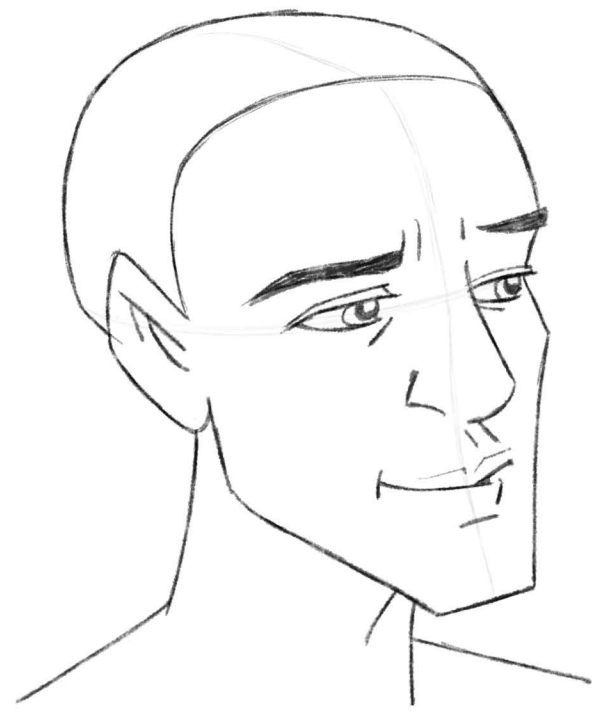
POINTS OF ORIGIN ARE NEEDED WHEN DRAWING FORMS LIKE HAIR.

COMPLEX FORMS CAN HAVE MANY POINTS OF ORIGIN.



O2_10: OPEN & CLOSED AREAS

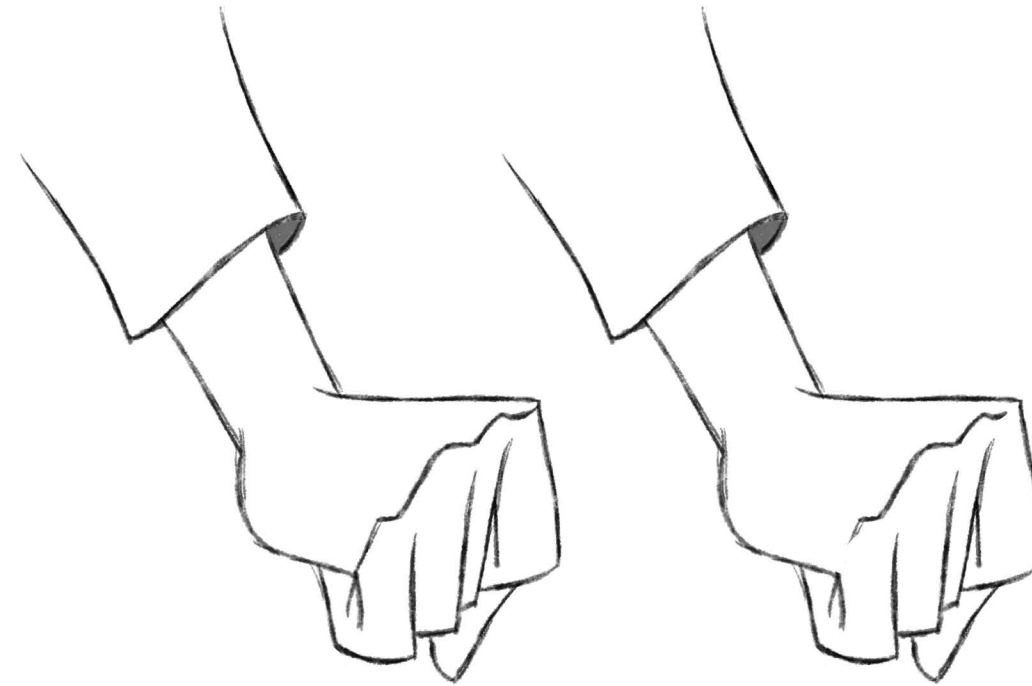
LEAVING OPEN SPACES TO MAKE THE DESIGN DIMENSIONAL.



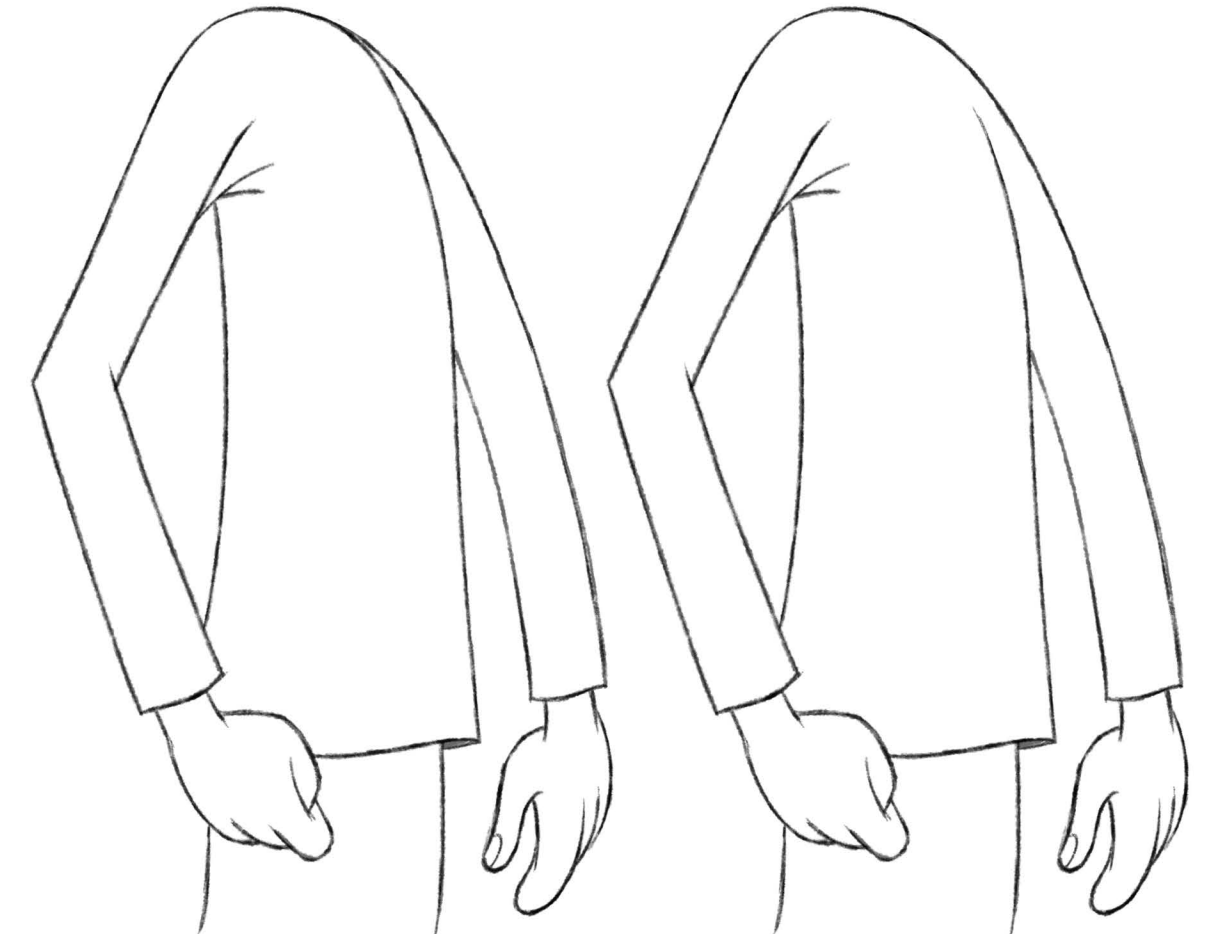
COMPLETELY CLOSING OFF AN AREA FLATTENS IT. E.G. THE JAWLINE ENCLOSES THE FACE.



BY LEAVING IT OPEN, THE FACE FEELS MORE ROUND & DIMENSIONAL.



THE KNUCKLE LINE IN OPEN & CLOSED STATES.



KEEP SPACES OPEN FOR A MORE CLASSIC LOOK. FLATTEN THEM FOR A STYLIZED EFFECT.



THERE MAY BE TIMES WHEN YOU WANT TO CLOSE OFF AREAS IF THAT'S A PART OF THE LOOK YOU'RE TRYING TO ACHIEVE. BUT BE SURE YOU DO THIS KNOWINGLY, AND NOT ACCIDENTALLY.

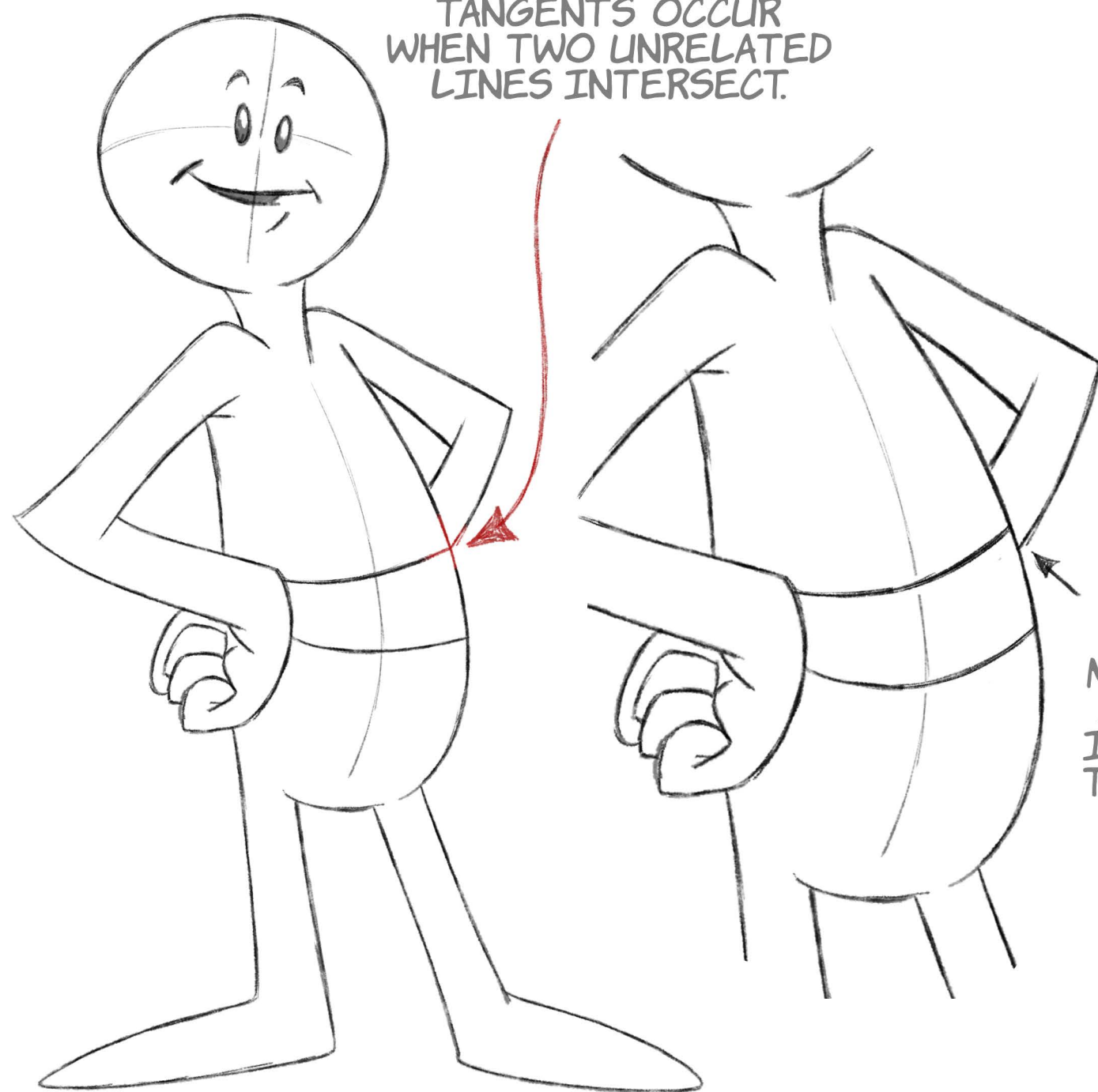


IT'S ALSO USEFUL TO KEEP SHAPES OPEN WHEN DRAWING CLOTHING OR FABRIC. RULE OF THUMB: UNLESS THERE'S NO CHOICE OR A NEED, TRY TO KEEP SHAPES OPEN, SO THAT THEY FLOW INTO EACH OTHER.

O2_11: TANGENTS

WATCHING OUT FOR COLLIDING LINES.

TANGENTS OCCUR WHEN TWO UNRELATED LINES INTERSECT.



ANOTHER COMMON SITUATION IS WHEN TWO CURVES GRAZE EACH OTHER, AS IN THE CASE OF THE MOUTH & SHOULDER:

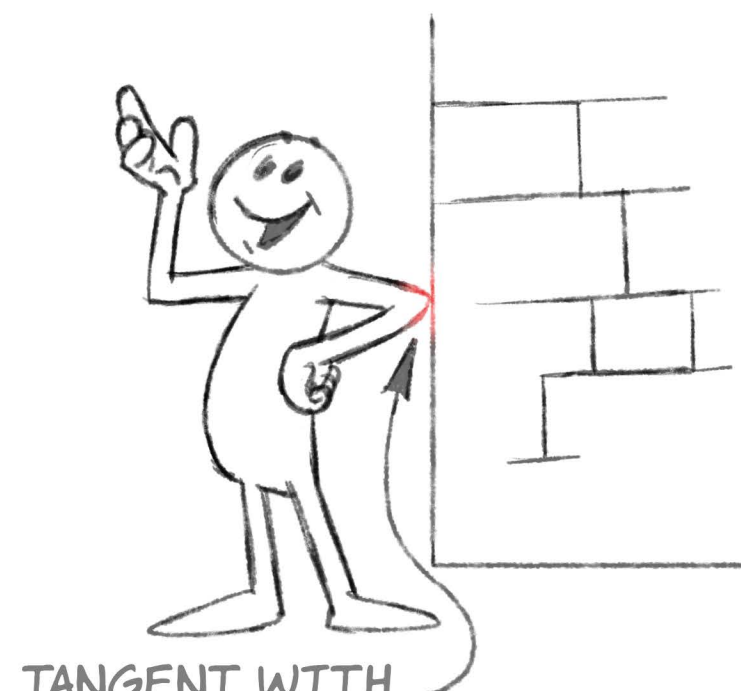
SOLUTION: MOVE ONE OR BOTH LINES. IN THIS CASE, THE BELT WAS MOVED UP.



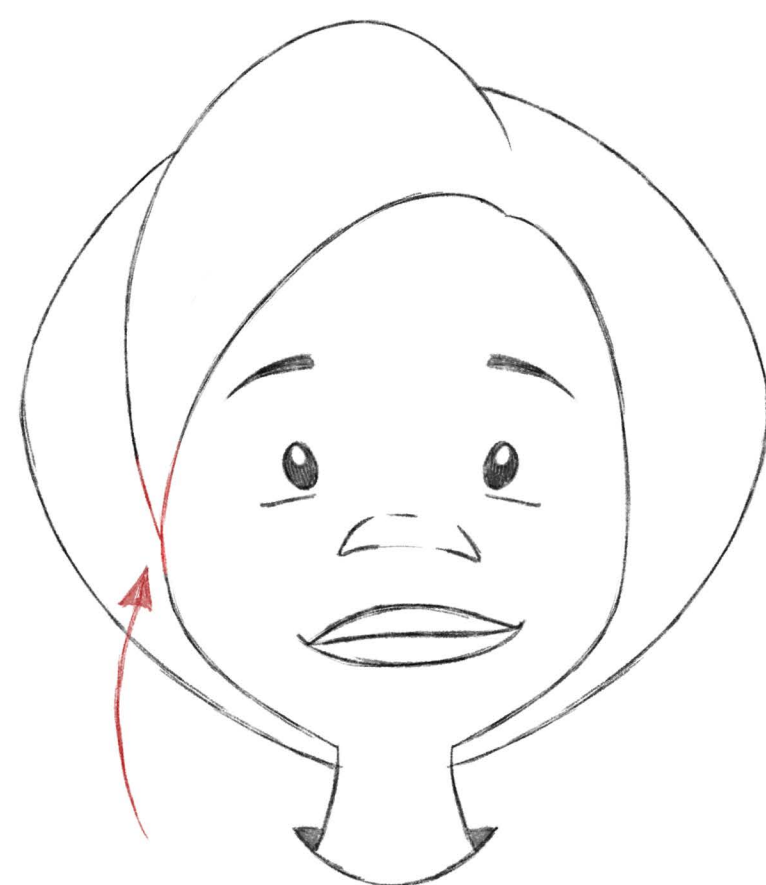
SOLUTION 1: MOVE MOUTH AND/OR HEAD LOWER:

SOLUTION 2: MOVE MOUTH AND/OR HEAD HIGHER:

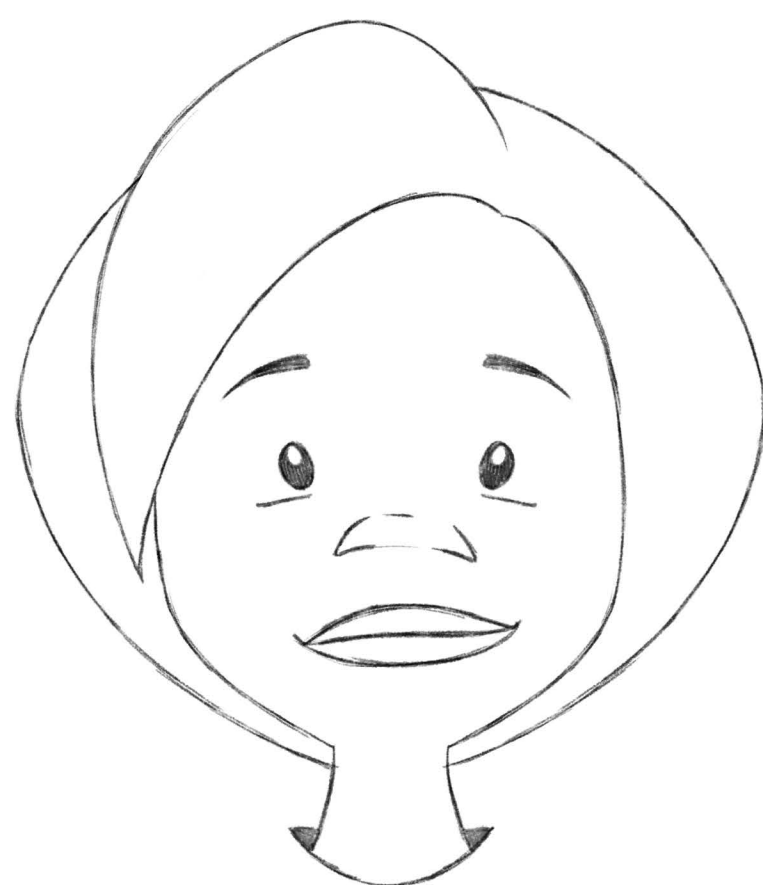
(ANOTHER SOLUTION IS TO MOVE THE SHOULDER. USE THE BEST FIX FOR YOU.)



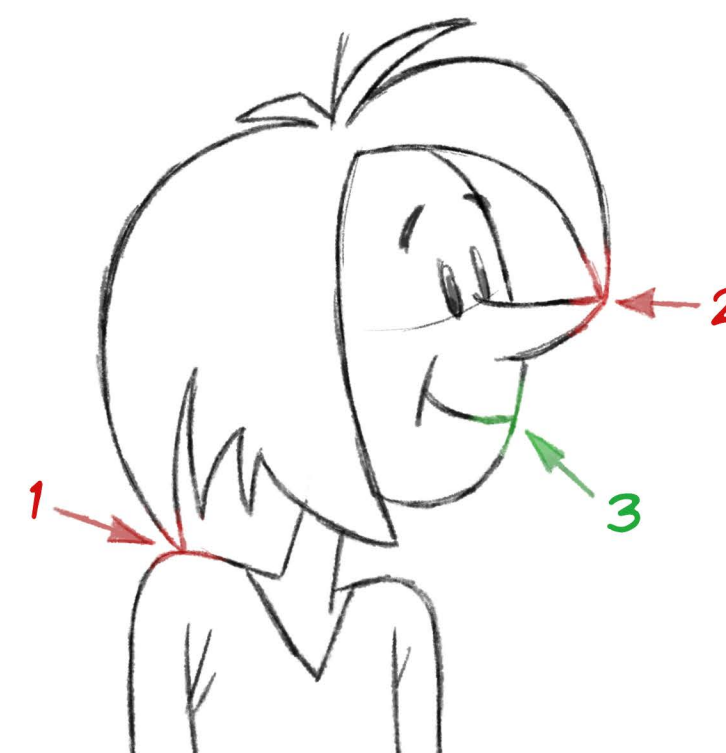
TANGENT WITH BACKGROUND. AVOID THESE!



THE TANGENT FORMED BY THE HAIR & CHEEK CREATES AN UGLY DESIGN THAT'S DIFFICULT TO READ.



THE TANGENT IS SOLVED BY MOVING THE HAIR TO ONE SIDE.



1 AND 2 ARE TANGENTS. THERE IS NO REASON FOR THESE LINES TO TOUCH. 3 IS NOT CONSIDERED A TANGENT! THE LINE FOR THE MOUTH FLOWS NATURALLY INTO THE PROFILE OF THE FACE.

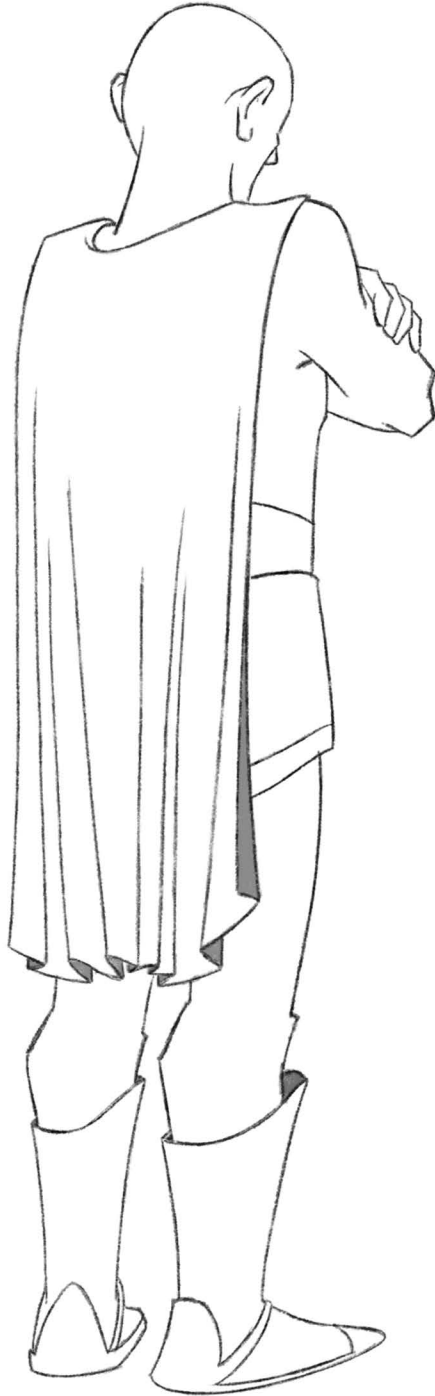


OFTEN, LINES ARE MEANT TO COME TO A POINT, E.G. THE CORNER OF THE MOUTH, WHERE THE CREASE LINES CONVERGE ON ONE POINT.

O2_12: MATERIALS & DRAG

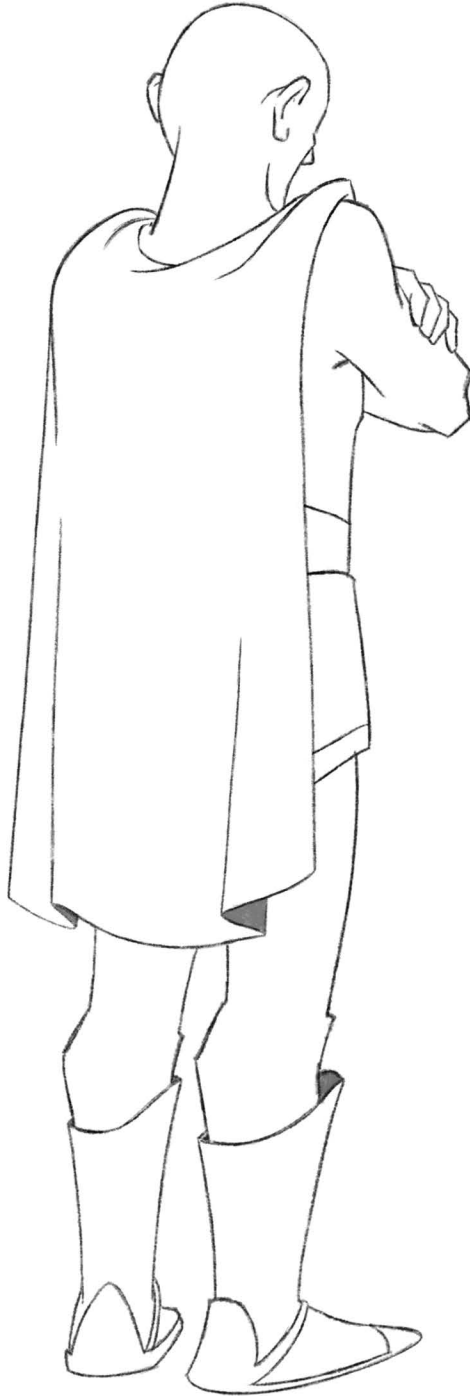
AN OBJECT'S MATERIAL WILL AFFECT HOW IT LOOKS & MOVES.

SILK CAPE



SILK WILL FOLD INTO MORE CREASES, WITH LONGER FOLDS.

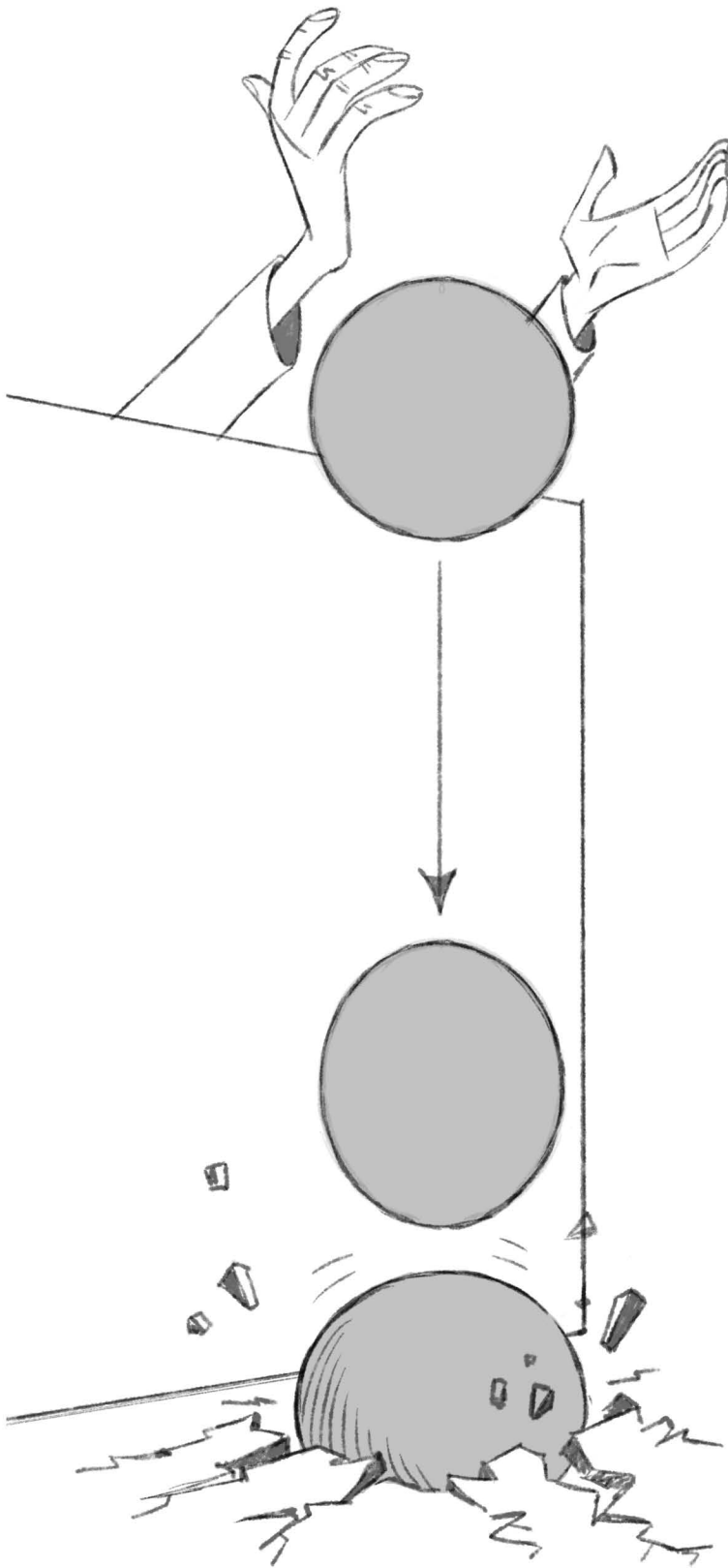
WOOL CAPE



WOOL WILL BE STIFFER, WITH FEWER FOLDS.



GIVEN THE SAME AIR MOVEMENT, THE LIGHTER MATERIAL WILL MOVE FURTHER. IT MAY ALSO BE QUICKER TO MOVE, BUT TAKE LONGER TO SETTLE.

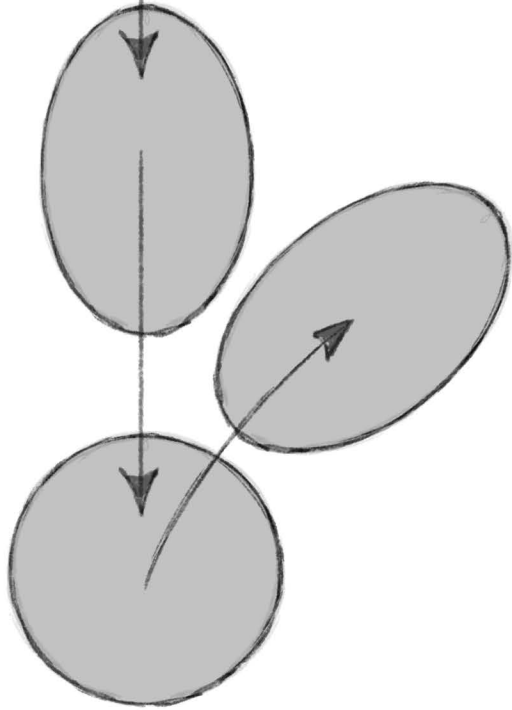


IRON

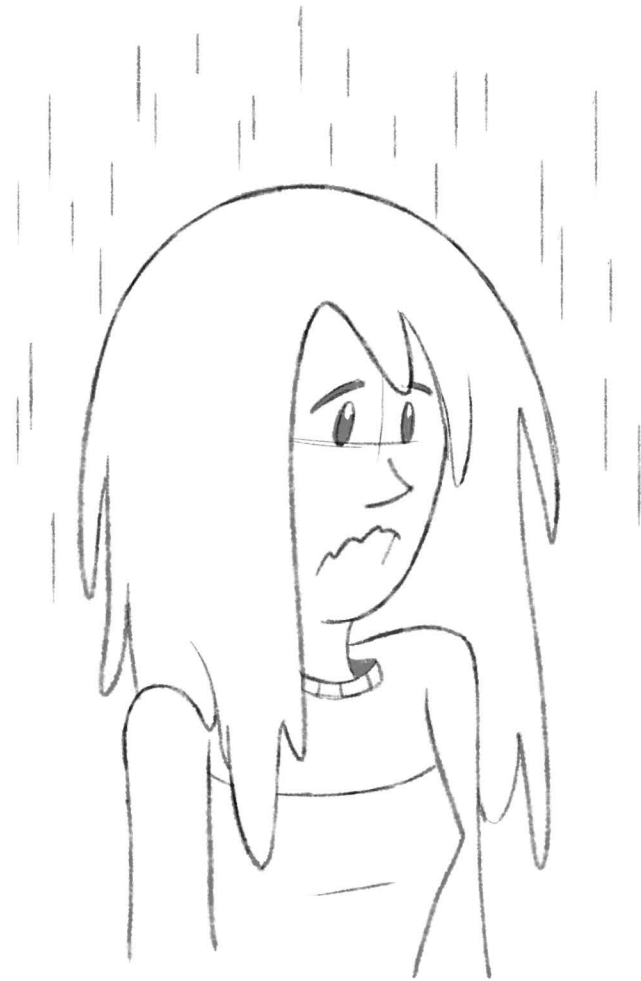
PHYSICAL PROPERTIES: A SPHERE WILL BEHAVE DIFFERENTLY IF IT IS MADE OF STRONG, FRAGILE OR FLEXIBLE MATERIAL.



PORCELAIN



RUBBER



A MATERIAL'S APPEARANCE WILL ALTER IF THE ENVIRONMENT CHANGES.

O2_12: MATERIALS & DRAG

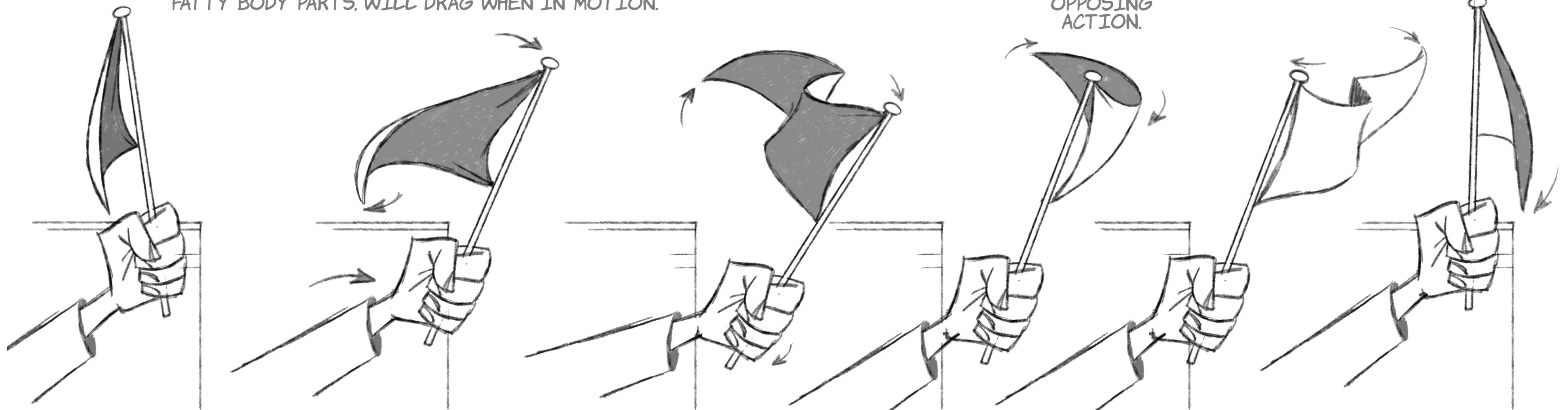
AN OBJECT'S MATERIAL WILL AFFECT HOW IT LOOKS & MOVES.

ANIMATION IS A CARTOON MEDIUM; YOU ARE FREE TO USE FANTASY PHYSICS (OR CARTOON PHYSICS) IF THE PROJECT STYLE ALLOWS IT.



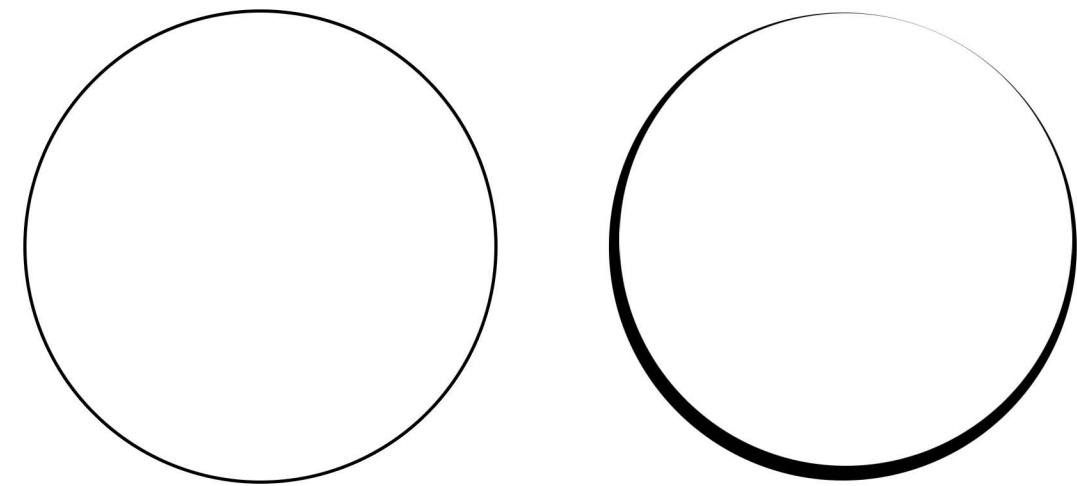
THE AMOUNT OF DRAG DEPENDS ON THE DENSITY OR FIRMNESS OF THE MATERIAL, AND THE SPEED WITH WHICH IT MOVES.

SOFT MATERIALS SUCH AS HAIR, CLOTH OR EVEN FATTY BODY PARTS, WILL DRAG WHEN IN MOTION.



O2_13: LINE WEIGHT

CONVEY VOLUME WITH LINE THICKNESS.



YOU AREN'T DRAWING LINES.
YOU'RE DRAWING VOLUMES.

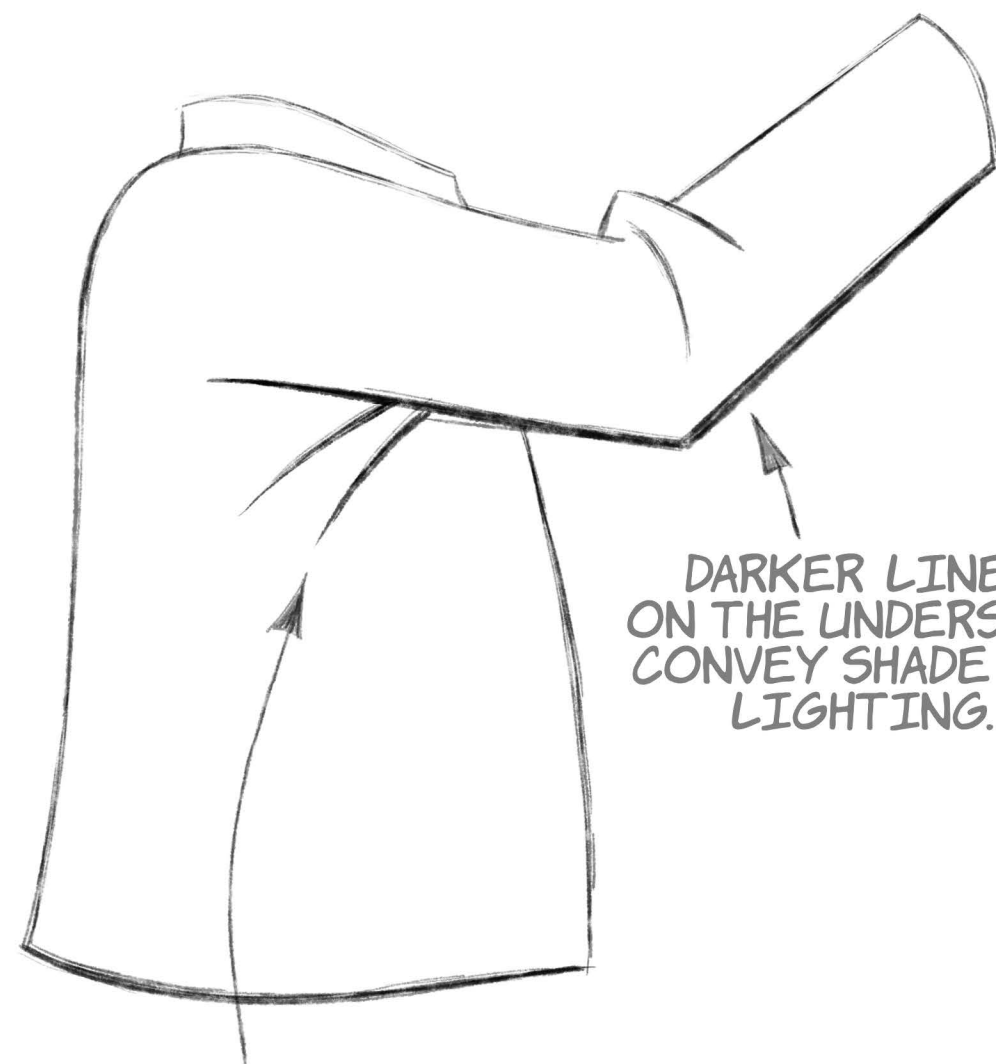
THIS CAN BE CONVEYED BY VARYING
THE THICKNESS AND/OR DARKNESS
OF THE LINE.

IN THE SPHERE ON THE RIGHT,
THE HEAVIER LINE AT THE BASE
CONVEYS LIGHT & VOLUME.



TAPERED LINES ARE A
SUBTLE EFFECT, BUT A
GOOD TECHNIQUE TO
KEEP DRAWINGS LOOKING
NATURAL. A PERFECTLY
STRAIGHT LINE CAN
LOOK TOO MECHANICAL.

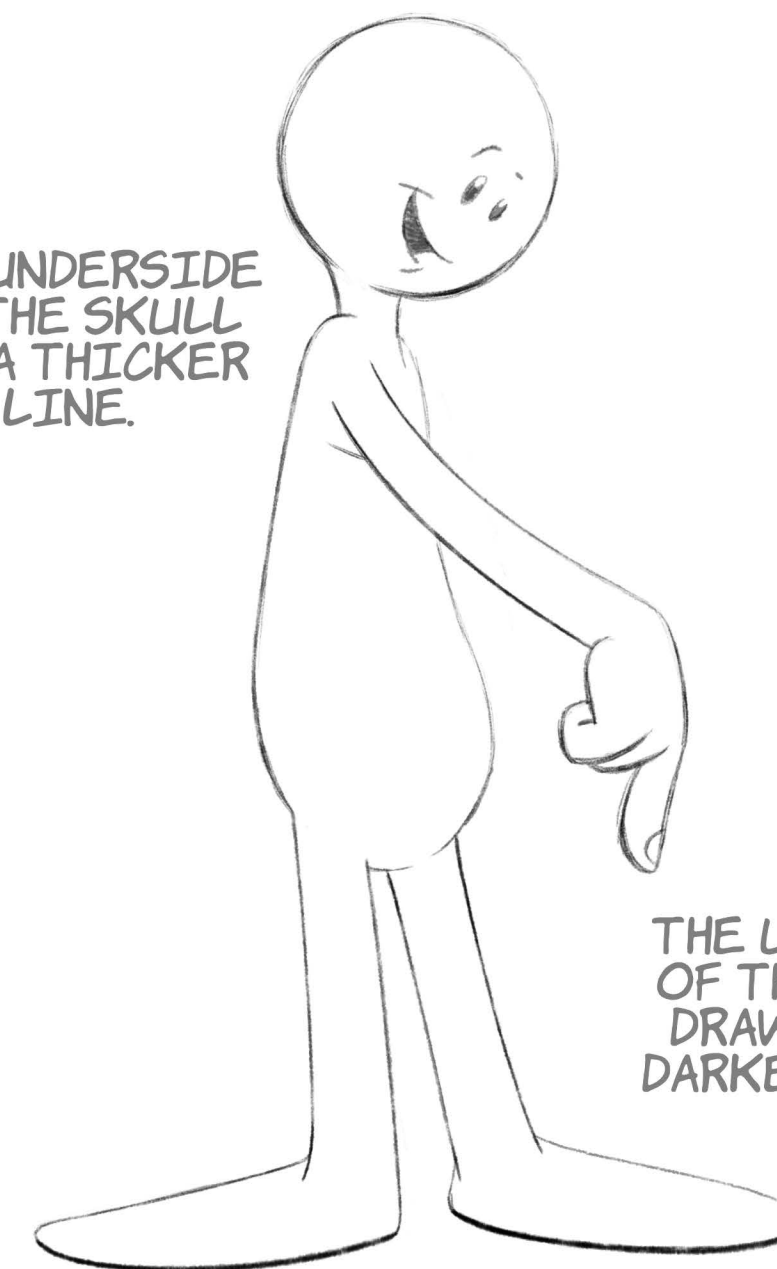
THIS IS VERY USEFUL
ON EYELIDS, AS IT
SUGGESTS THE DEPTH
OF THE LIDS NEXT TO
THE EYEBALL.



DARKER LINES
ON THE UNDERSIDE
CONVEY SHADE AND
LIGHTING.

TAPERED
CREASES.

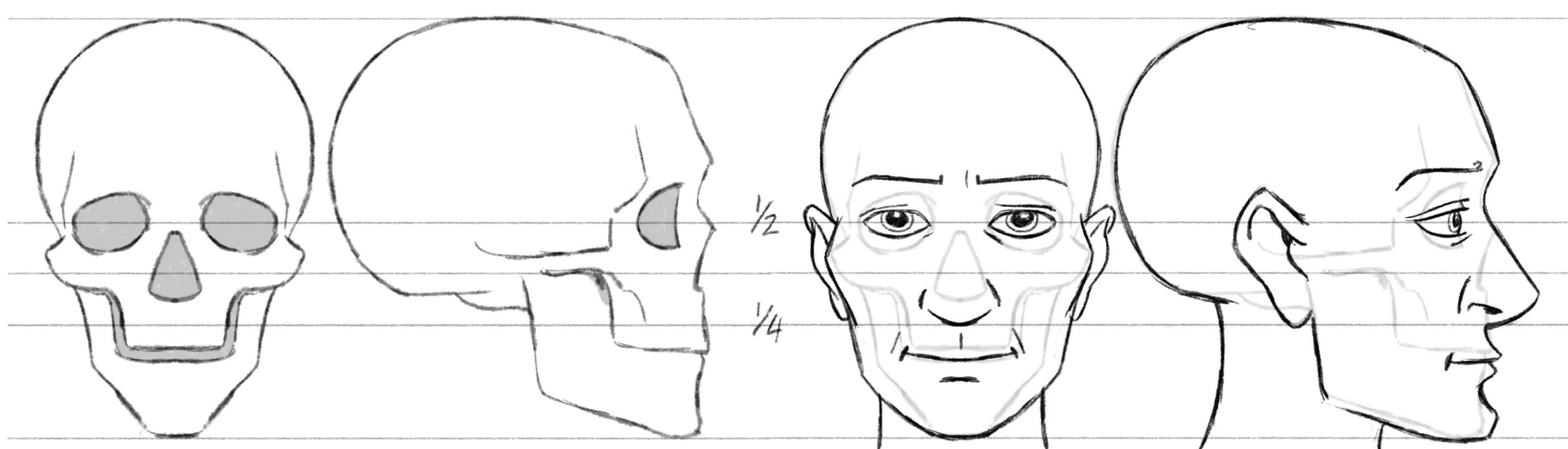
THE UNDERSIDE
OF THE SKULL
HAS A THICKER
LINE.



THE UNDERSIDE
OF THE HAND IS
DRAWN WITH A
DARKER STROKE.

THIS IS EFFECTIVE ON
THE SOLES OF FEET.

O3_O1: ANATOMY



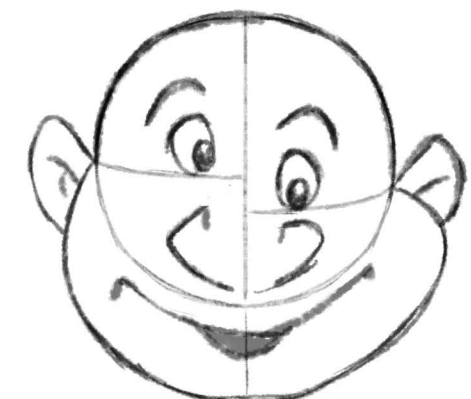
THESE PROPORTIONS OF THE SKULL ARE AN IDEAL, OR AN AVERAGE. ACTUAL FACES OR SKULLS WILL VARY FROM THIS SOMEWHAT



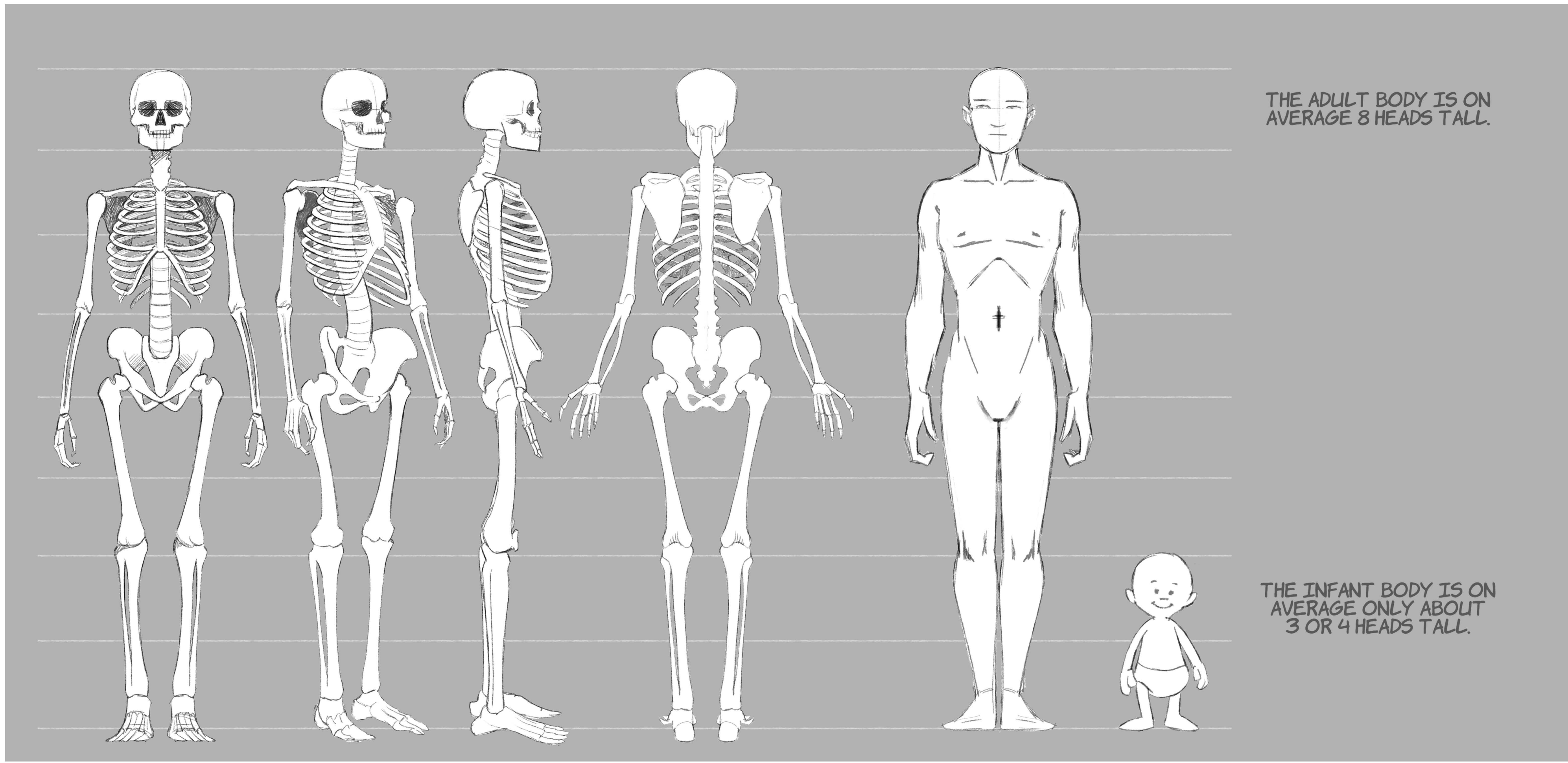
A 1/2 EYELINE IS COMMON.



A 1/3 EYELINE IS USEFUL IF A LARGE FOREHEAD IS NEEDED. IT'S ALSO USEFUL WHEN DRAWING BABIES.



THESE ARE TWO OF THE MORE COMMON EYELINE POSITIONS.



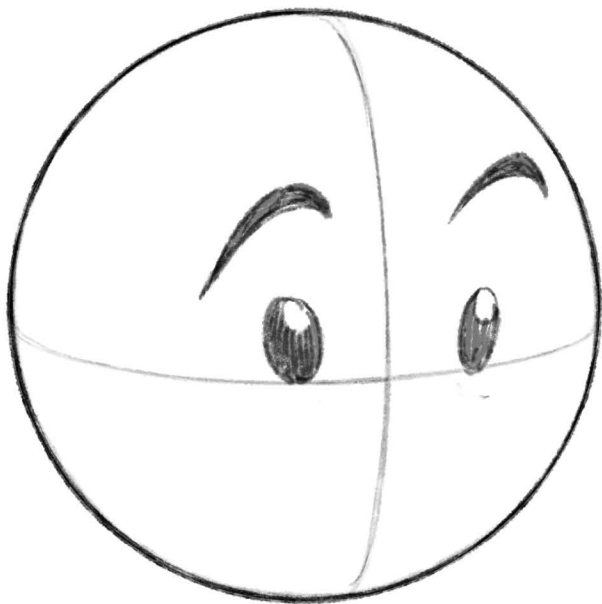
THE ADULT BODY IS ON AVERAGE 8 HEADS TALL.

THE INFANT BODY IS ON AVERAGE ONLY ABOUT 3 OR 4 HEADS TALL.

03_02: INTRODUCTION TO DRAWING EYES

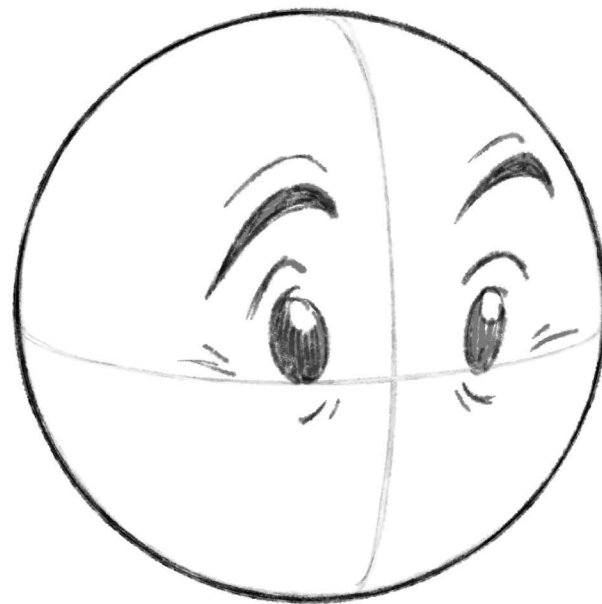
THE MOST IMPORTANT FACIAL FEATURE TO MASTER.

THE DOT (TEDDY BEAR).



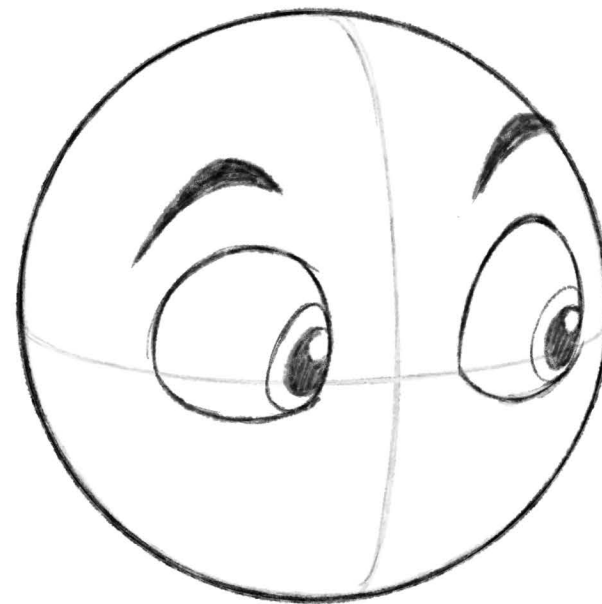
EYELINE & CENTERLINE.
FIX THE EYE POSITION.
THIS SIMPLE LOOK
HAS GREAT APPEAL.

THE DOT (DETAILS).



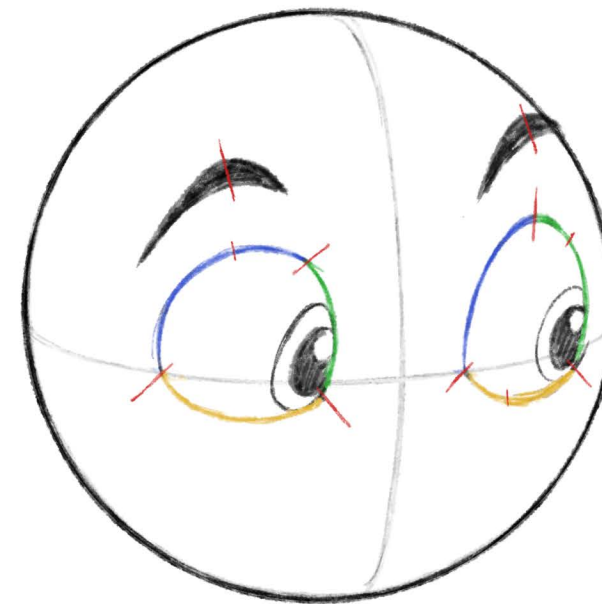
CREASES ADD AGE
AND PERSONALITY.
NOTE THE ABSENCE
OF EYE WHITES.

CLASSIC EYES.



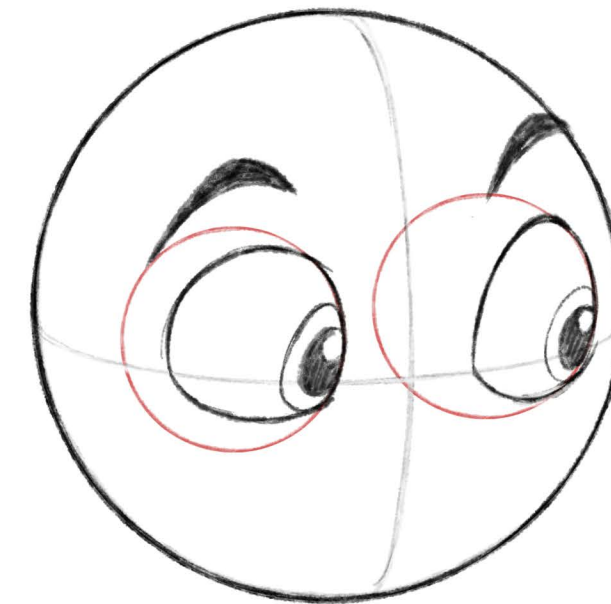
THIS IS THE CLASSIC
CARTOONY EYE STYLE.

BREAKS ON CURVES.



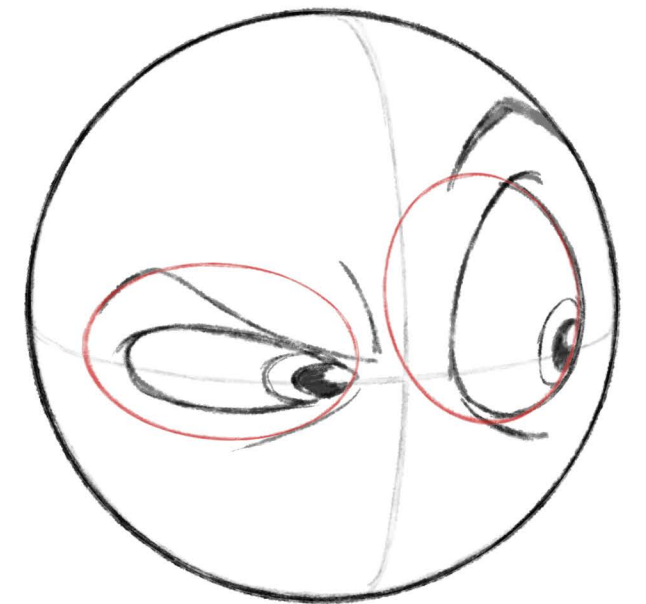
THESE LOOK SOLID
BECAUSE OF BREAKS
IN THE CURVES (RED).
THIS DEFINES THE
FORM OF THE EYES.

VOLUME CONSTRUCTION.

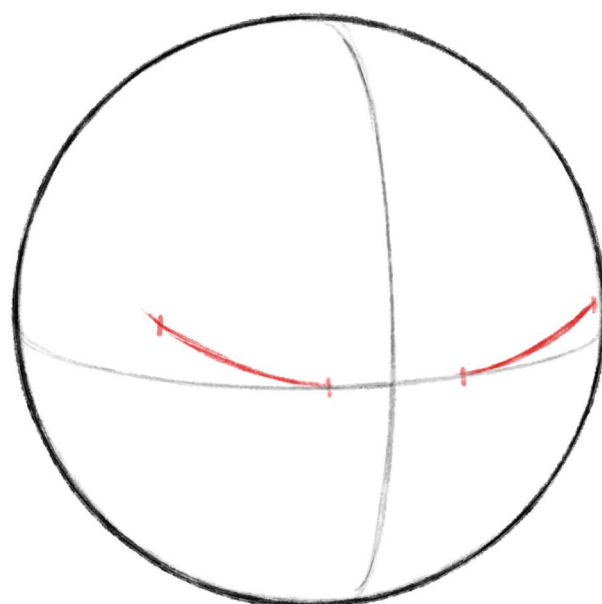


DRAW VOLUMES, NOT
LINES! EYE VOLUMES
ARE IN RED. DON'T
DRAW THEM, JUST
REMEMBER THEY EXIST.

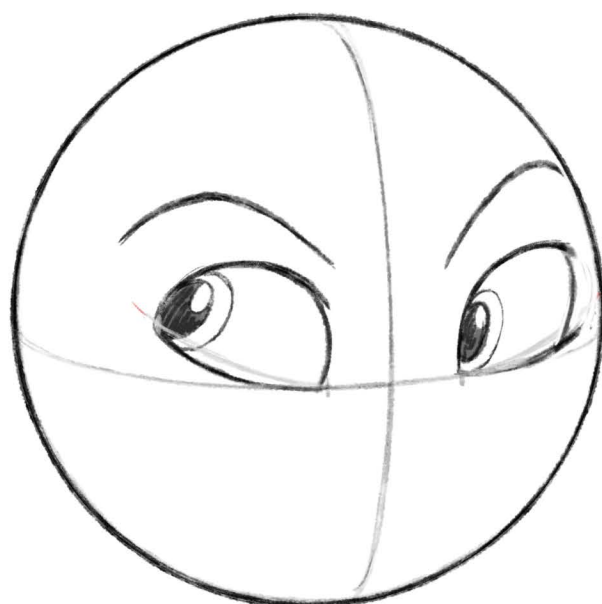
SQUASH/STRETCH.



THE EYE SPHERES
DETERMINE THE
CURVE OF THE EYE
EDGES & SHAPE
OF THE LIDS.



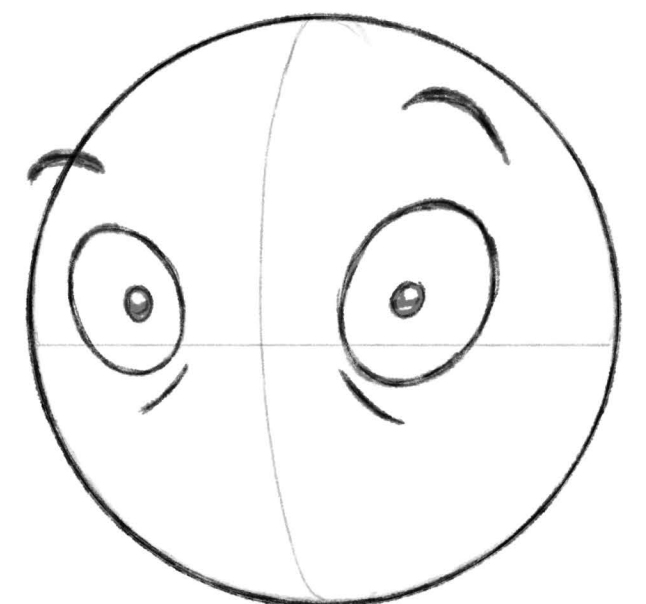
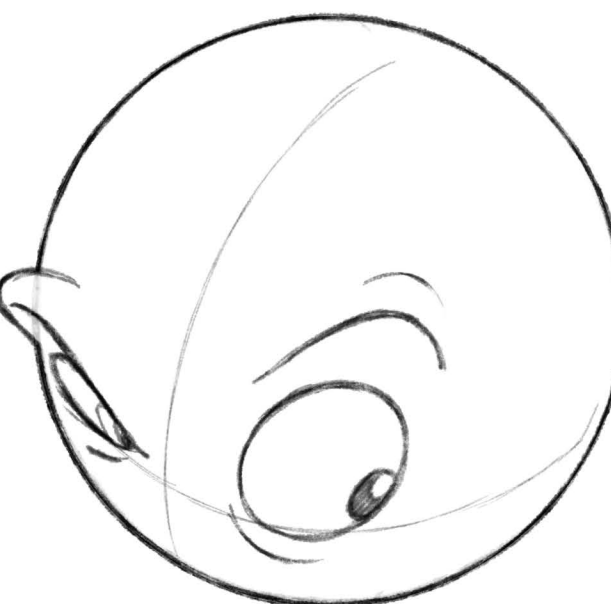
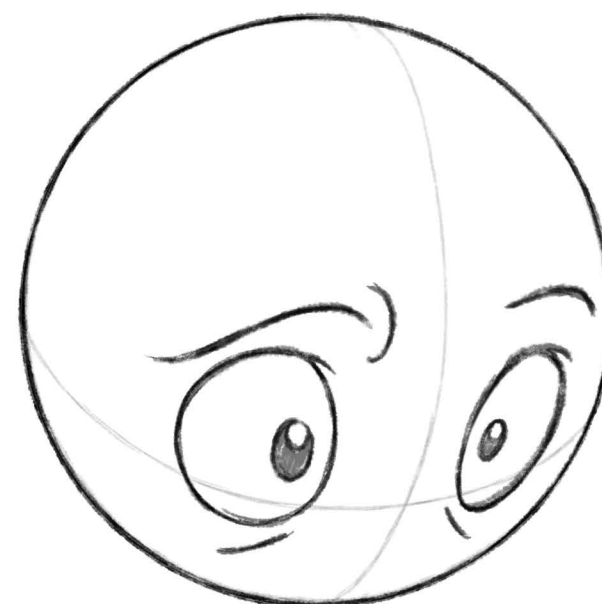
ALMOND SHAPED EYES
CONVEY FEMININITY.
PUSH THE OUTER EDGES
UP FROM THE EYELINE.



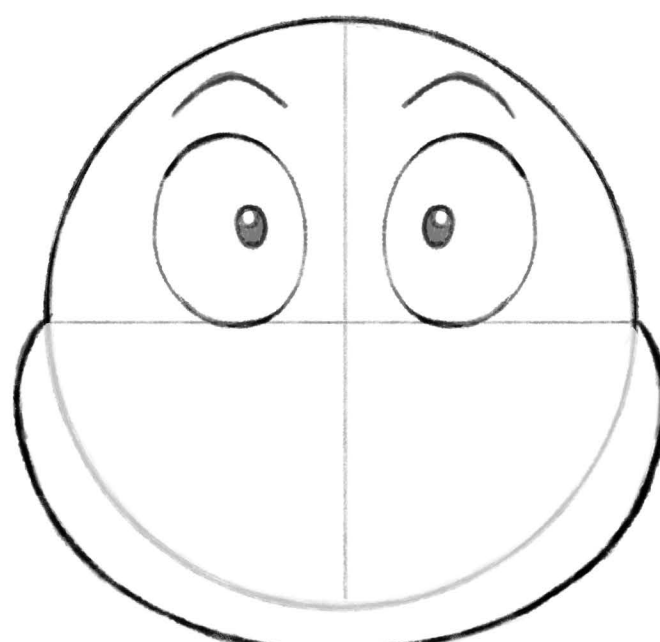
NOTE THE BREAKS ON
THE CURVES.



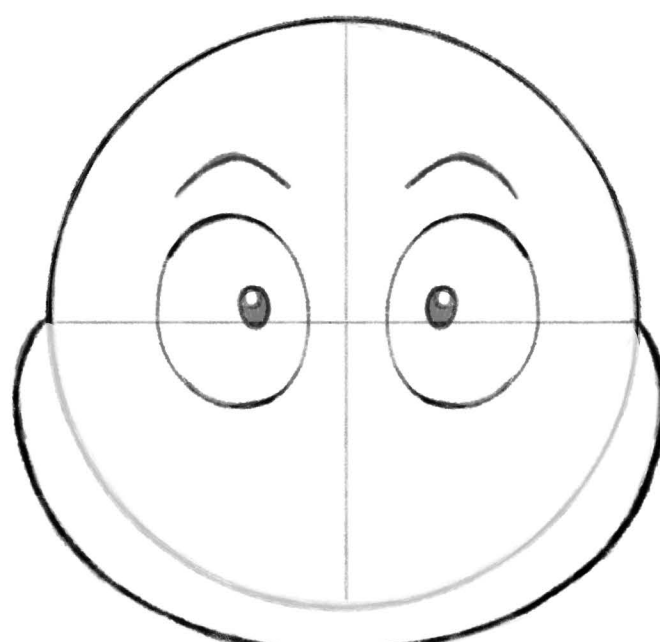
VARY THE SHAPES OF THE LEFT AND RIGHT EYES FOR A STRONGER DESIGN.
EVEN A SMALL VARIATION IN THE SIZE OR SHAPE OF THE EYES WILL MAKE
THE CHARACTER MORE LIFELIKE.



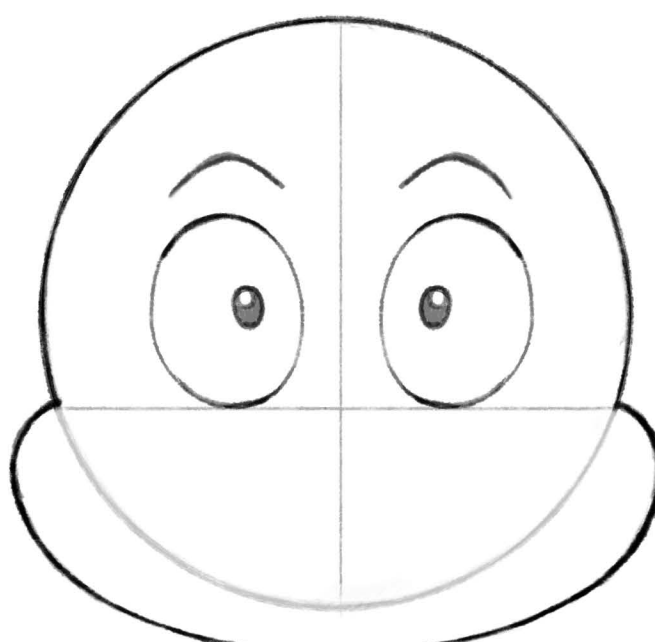
KEEP EYES SLIGHTLY
CROSSEYED, OR THEY
CAN LOOK SPACED OUT.



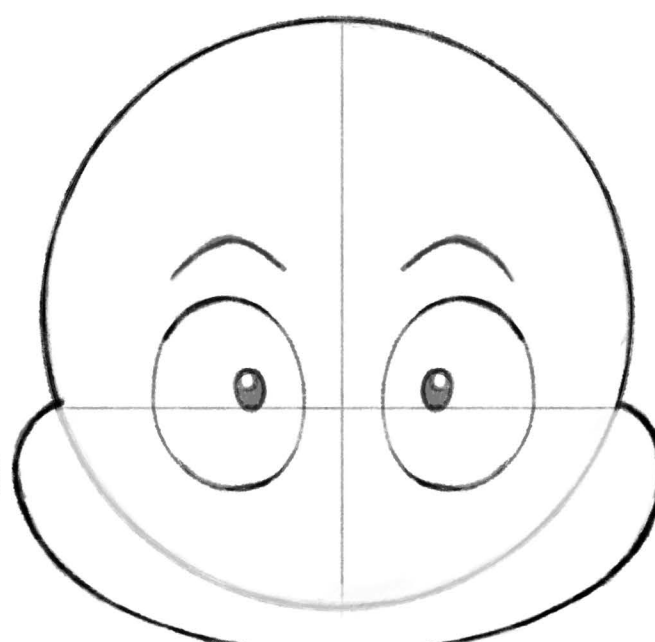
THE EYELINE CAN BE
POSITIONED AT
THE EYELINE
WITH THE EYES
RESTING ON IT.



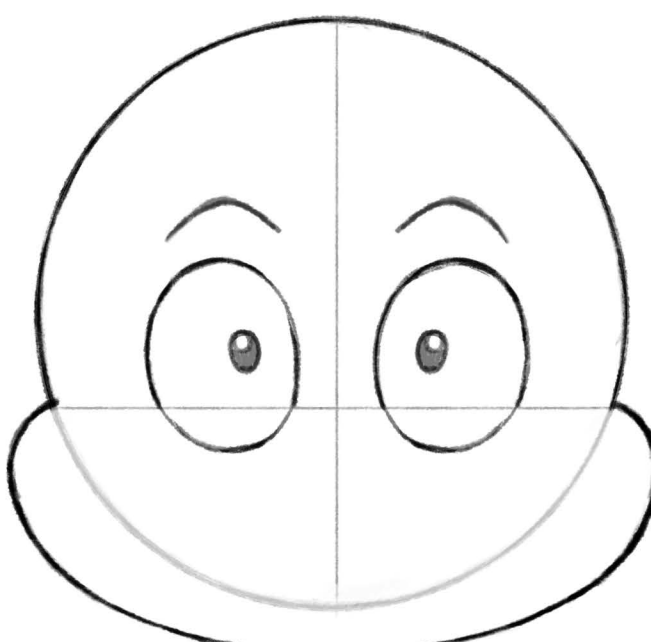
WITH THE SAME
EYELINE, THE EYES
CAN BE POSITIONED
SO THAT THEY ARE
BISECTED BY IT.



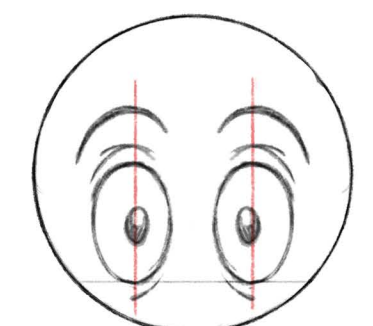
THE EYELINE CAN BE
POSITIONED 2/3 UP
OR DOWN THE SKULL.
THIS WILL CHANGE THE
SHAPE OF THE JAW.



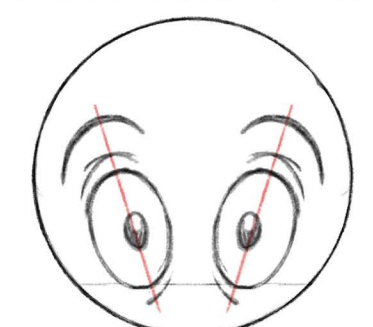
THE EYES CAN BE
LOWERED SO THAT
THEY ARE BIASED
BY THE EYELINE.



IF NEEDED, THE CORNER
POINT OF THE EYES CAN
BE 1/3 OR 1/4 FROM THEIR
BASE, CREATING YET
ANOTHER VARIATION.



EYES CAN BE ON A
VERTICAL AXIS...



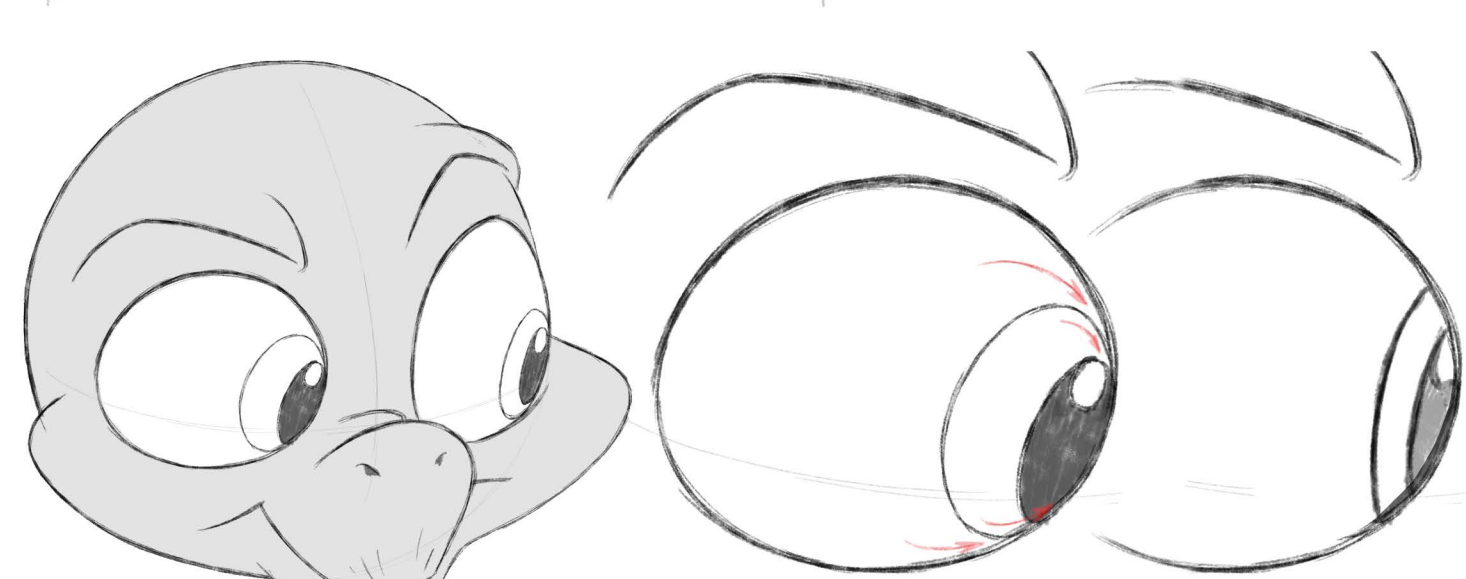
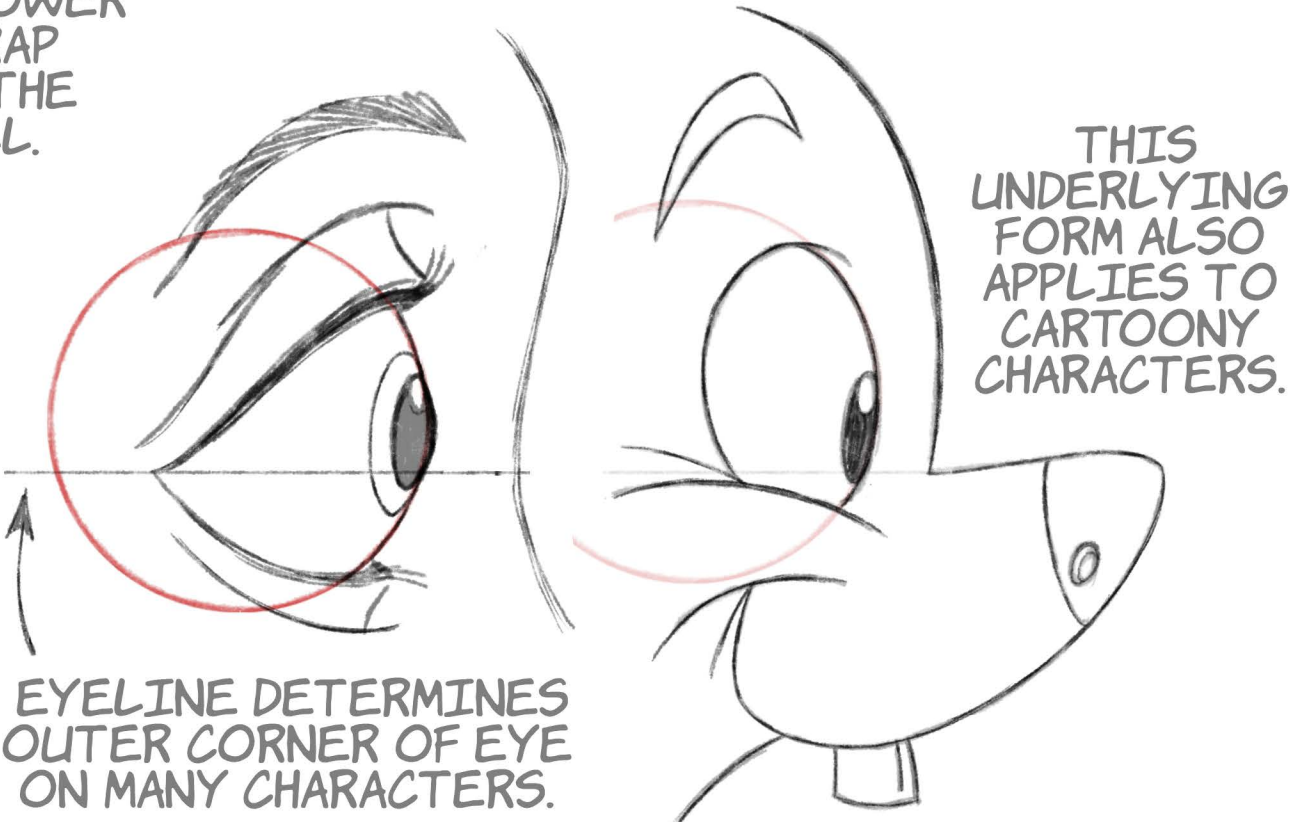
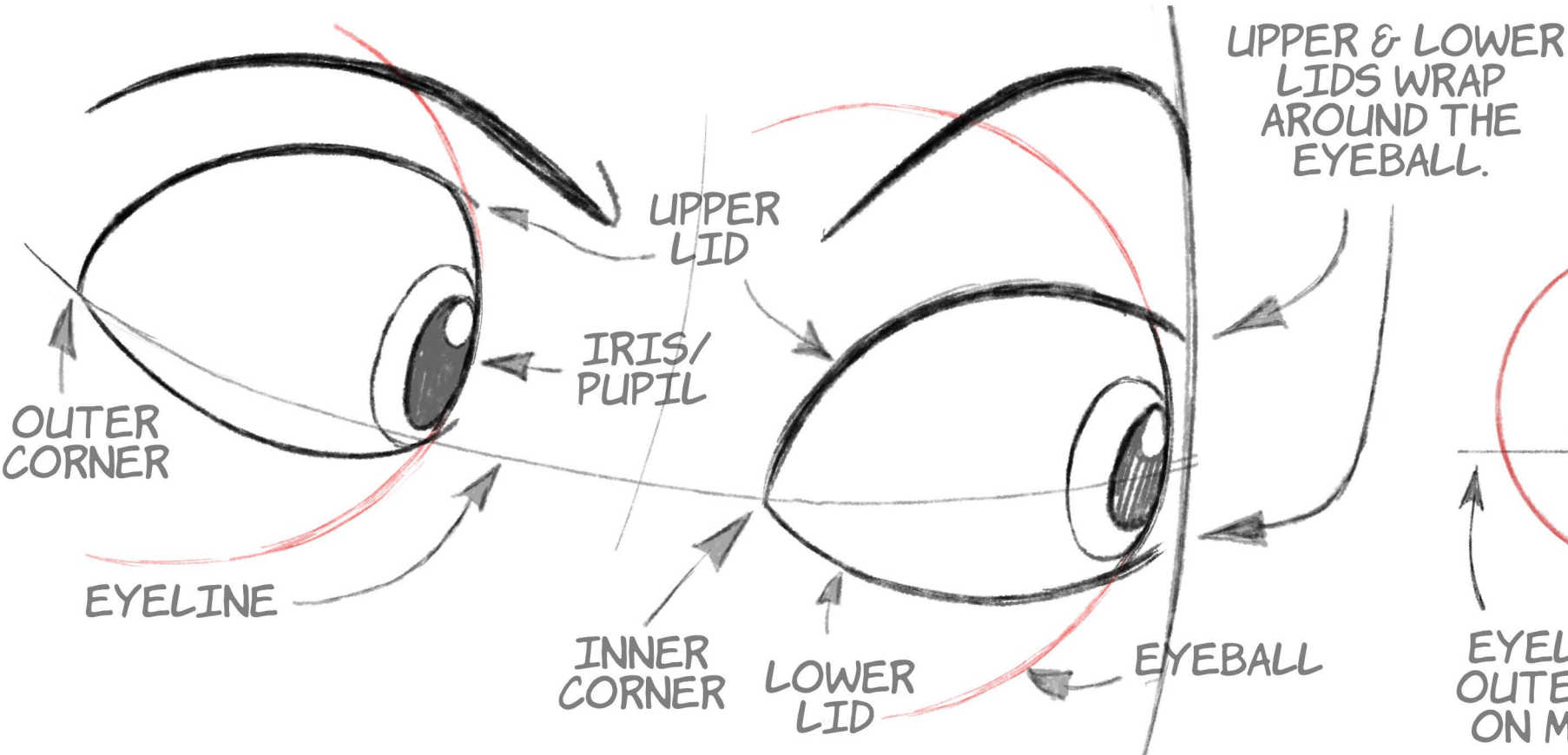
OR A DIAGONAL.

O3_O2: INTRODUCTION TO DRAWING EYES

STRUCTURE OF THE LIDS, PUPIL & IRIS

THESE PRINCIPLES APPLY TO DIFFERENT STYLES:

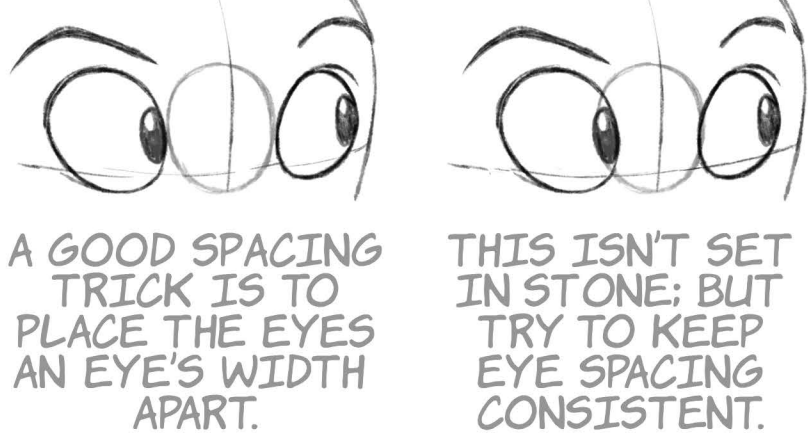
		REALISTIC/ NATURAL
		CARTOONY/ TRADITIONAL
		GRAPHIC/ STYLIZED
		DOTS/ TEDDY BEAR



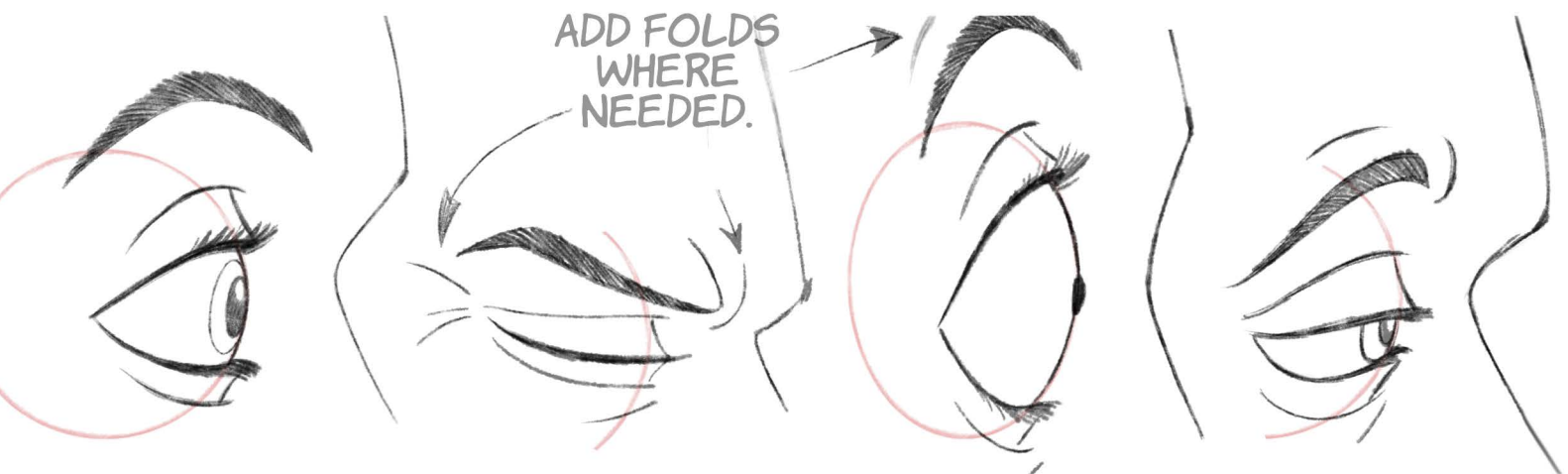
HOW TO KEEP IRIS & PUPIL FROM SEEMING FLAT:

DRAW THEM WITH A FULL ELLIPSE TO CREATE VOLUME.

DON'T CROP THE IRIS/PUPIL LIKE THIS: IT LOOKS FLAT.



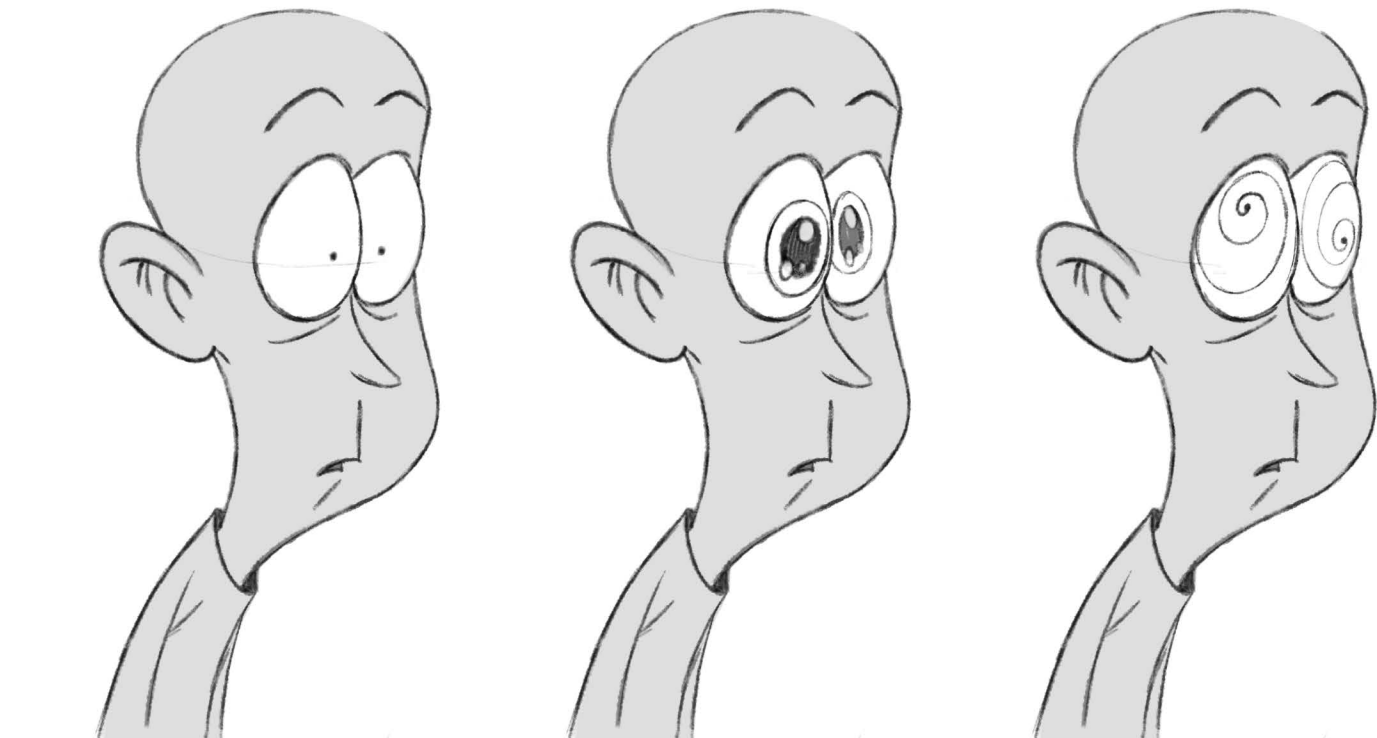
KEEP THE EYE FLEXIBLE. DON'T JUST HAVE 5 OR 6 STOCK EXPRESSIONS.



THE PRINCIPLES ALSO APPLY TO A CLASSIC 1930S/40S STYLE EYE:



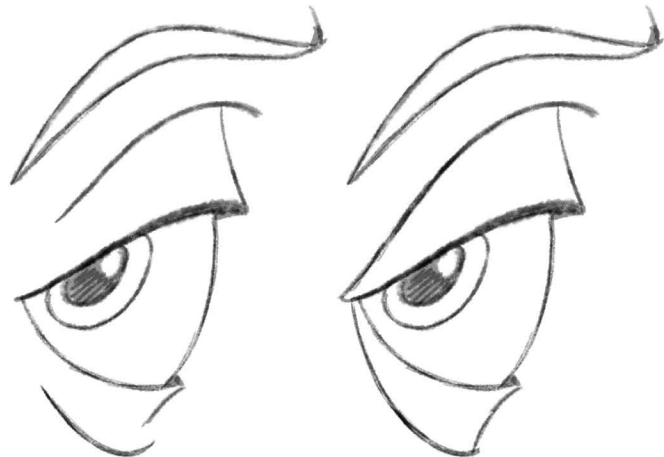
AN EXTREMELY LIMITED GRAPHIC EYE DESIGN CAN HAVE FLEXIBILITY:



REDUCE PUPILS. ENLARGE EYES FOR SURPRISE OR FEAR.

ENLARGE PUPILS AND IRIS FOR LOVE/GRIEF.

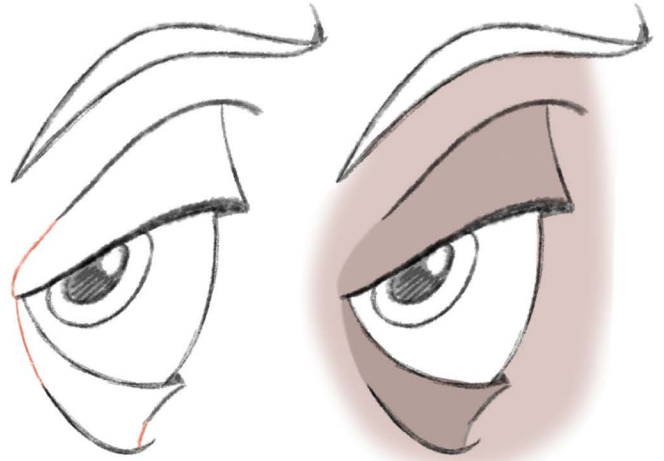
SPIRAL WITH TINY PUPILS FOR CLASSIC HYPNOSIS.



OPEN

CLOSED

CHOOSE BETWEEN OPEN AND CLOSED AREAS.



INK LINES (OR INVISIBLE LINES ON THE COMPUTER) ENCLOSE AREAS TO COLOR.

O3_O3: EYEBLINKS & BROWS



IMAGINE AN INVISIBLE MASK AROUND THE EYE AREA. THIS WILL HELP YOU TO DISTORT THE EYE AREA WHILE KEEPING IT COHERENT.

EYE BLINKS



OPEN 1/3 CLOSED CLOSED 1/3 OPEN OPEN

#1: CLASSIC BLINK. TYPICALLY ON 24 OR 30 FRAMES PER SECOND, EACH DRAWING IS HELD FOR 2 OR 3 FRAMES. IN THIS BASIC VERSION, THE BROWS DON'T MOVE, ONLY THE LIDS.



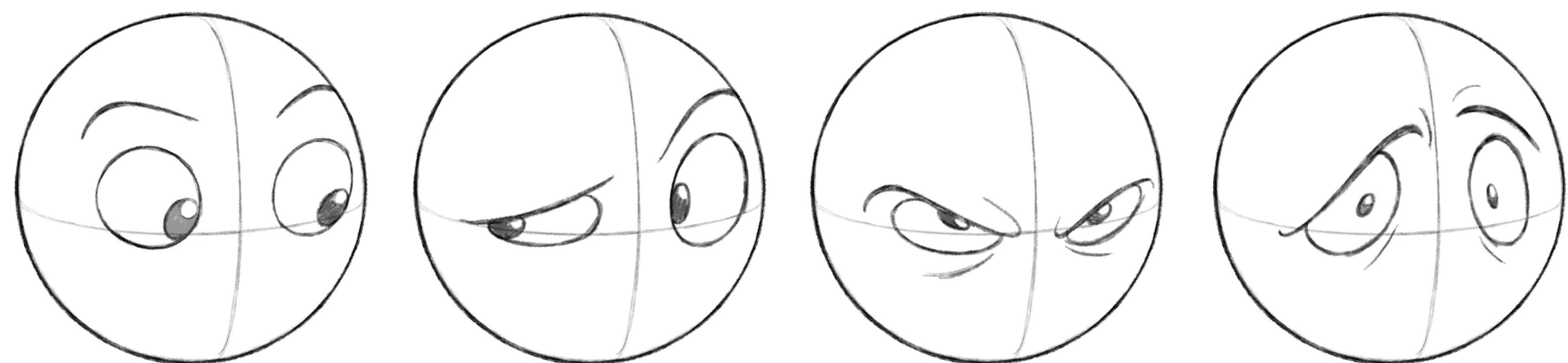
OPEN 1/3 CLOSED CLOSED 1/3 OPEN OPEN

#2: SQUINT BLINK. A MUCH STRONGER BLINK, GOOD FOR MORE FORCEFUL TRANSITIONS, OR REACTIONS/TAKES. DON'T OVERUSE, AS IT MIGHT BECOME DISTRACTING.

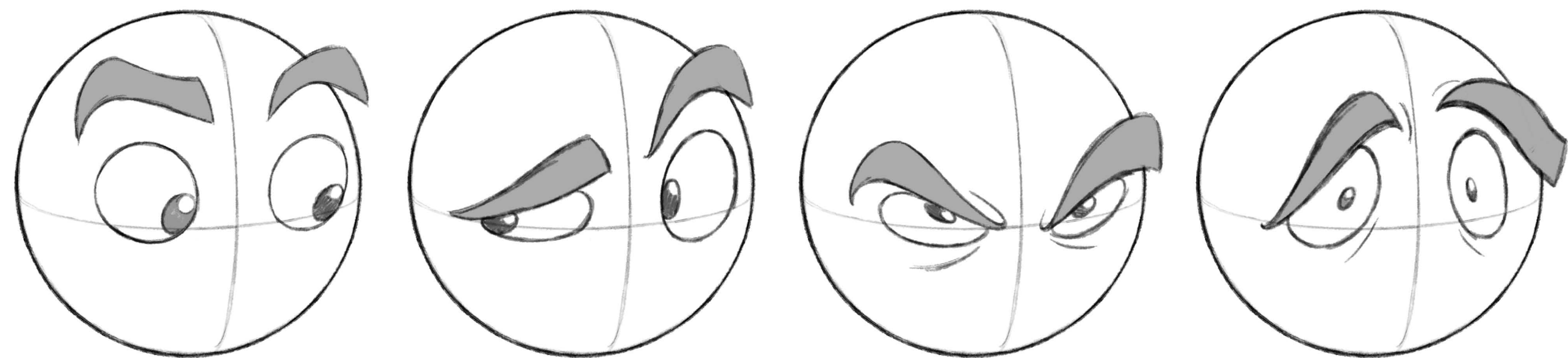


OPEN 1/3 CLOSED CLOSED 1/3 OPEN OPEN

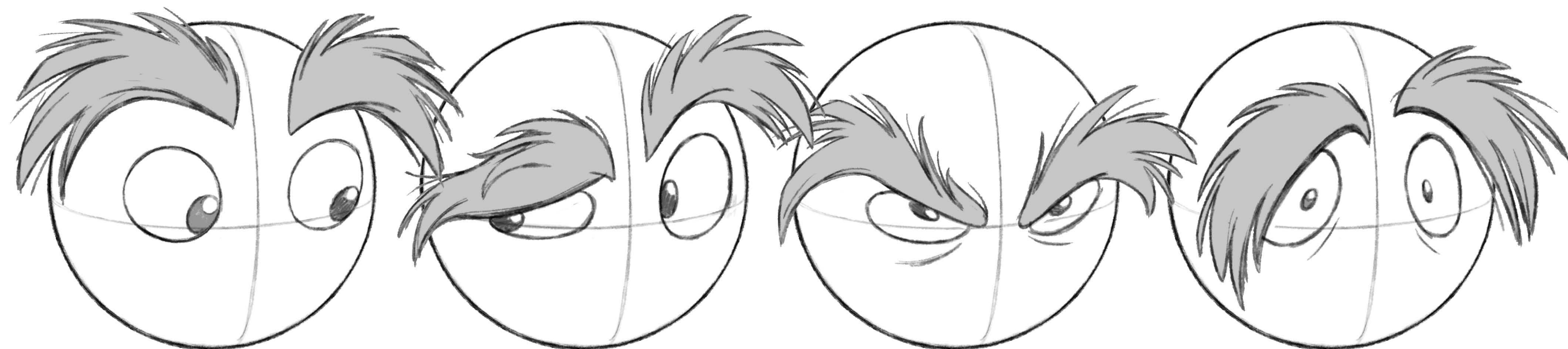
#3: COMBINATION BLINK. THE BROWS MOVE, BUT NOT ENOUGH TO CREATE A SQUINT. THIS IS ALSO A MORE INTERESTING BLINK THAN #1.



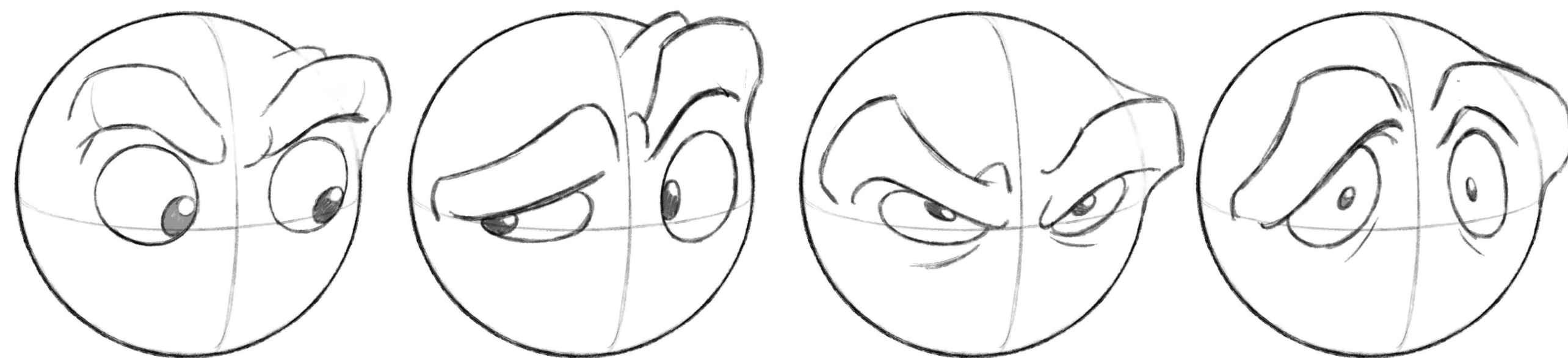
THE SIMPLEST BROW IS THE SINGLE LINE. EVEN THIS BASIC FORM IS CAPABLE OF GREAT EXPRESSION.



BY ADDING AN UPPER STROKE, DIMENSION IS ACHIEVED.



POINTS OF ORIGIN CONTROL THE DESIGN OF BUSHY EYEBROWS (MAD SCIENTISTS, OWLS, WIZARDS).



THE RIDGE DESIGN IS USEFUL FOR DINOSAURS, CAVEMEN AND VERY MUSCULAR CHARACTERS.

O3_O4: REALISTIC EYES



REALISTIC EYES
CAN STILL BE
STYLIZED.

SIMPLIFY SHAPES,
CONVERT LINES TO
STRAIGHTS/CURVES.



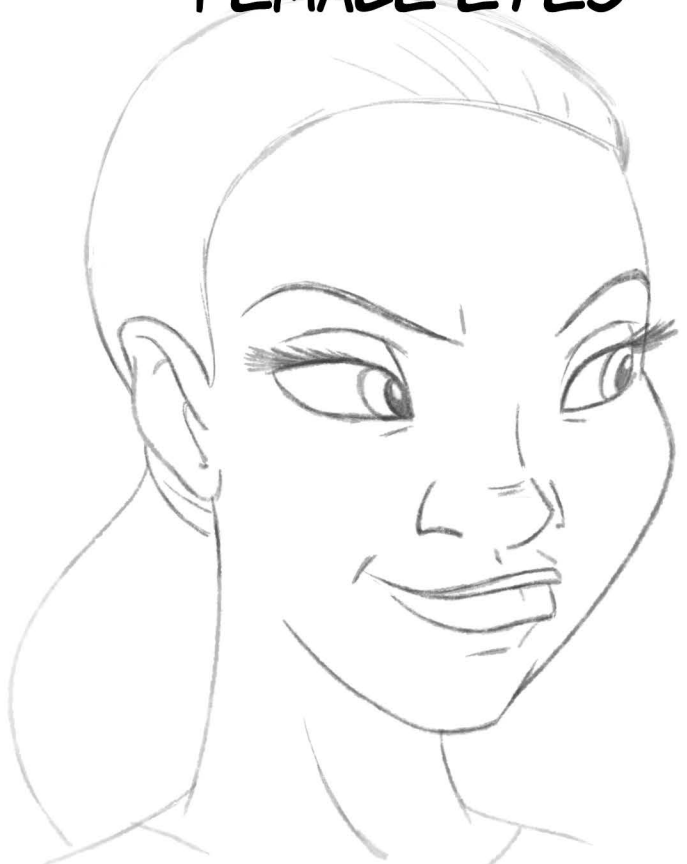
STRONG STRAIGHTS AND CURVES,
AND SIMPLE SHAPES GIVE THE EYES
AN APPEALING GRAPHIC QUALITY.



JUST BECAUSE YOUR STYLE IS MORE NATURALISTIC DOESN'T MEAN THAT YOU CAN'T EXAGGERATE.



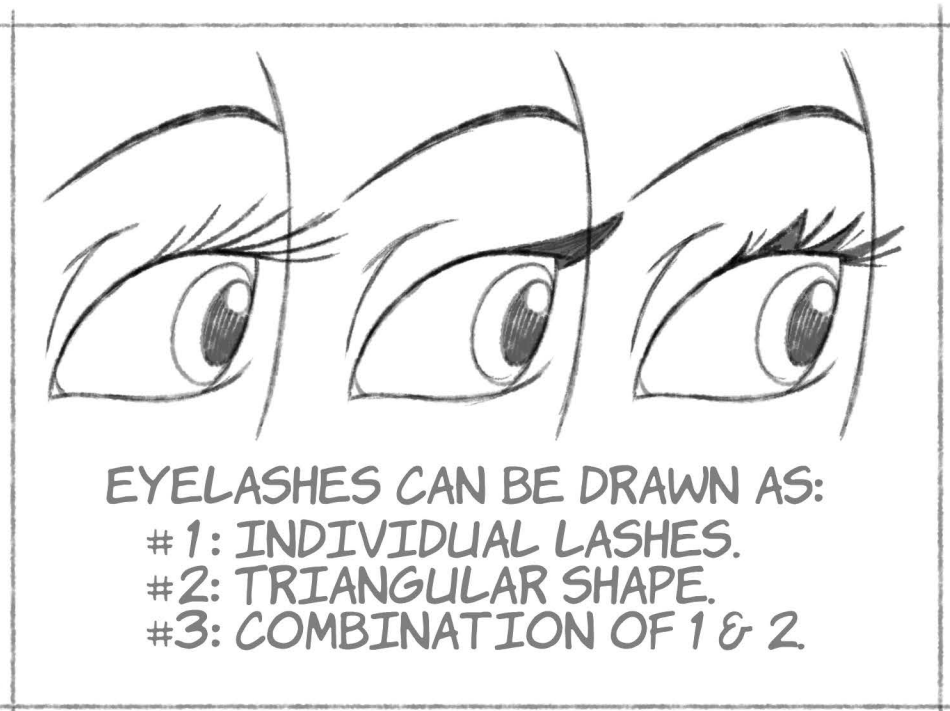
FEMALE EYES



CLASSIC FEMALE FACE,
AS SEEN IN MANY MOVIES.



DIFFERENT EYELINE ORIENTATIONS ARE POSSIBLE,
AND THEY ALL LOOK EQUALLY FEMININE.



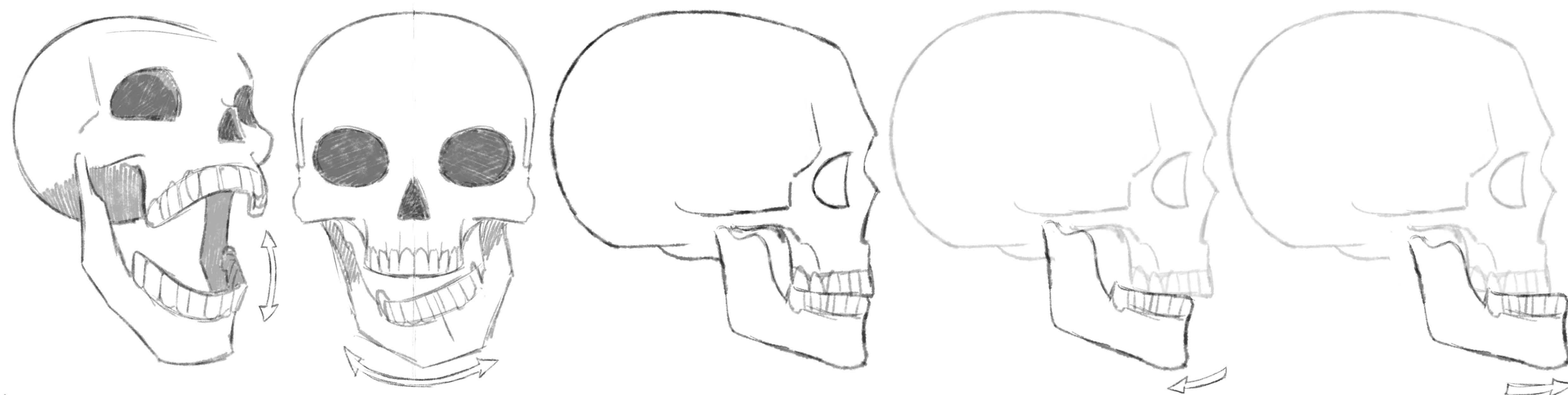
EYELASHES CAN BE DRAWN AS:
#1: INDIVIDUAL LASHES.
#2: TRIANGULAR SHAPE.
#3: COMBINATION OF 1 & 2

DO NOT FEEL COMPELLED TO
FOLLOW AN IDEALIZED FEMALE
DESIGN. FEMALE CHARACTERS CAN
BE JUST AS INTERESTING AND
VARIED AS MALES!



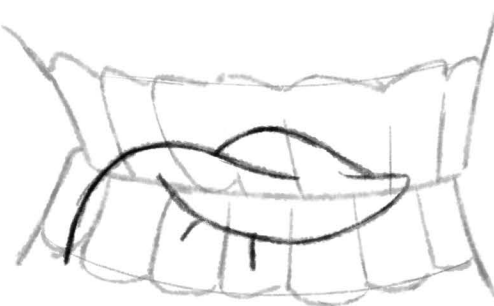
03_05: CARTOONY MOUTHS

ANATOMICAL STRUCTURE & RANGE OF MOTION



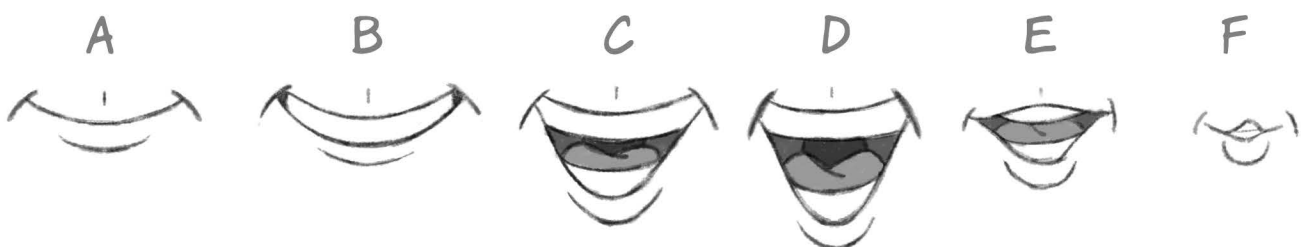
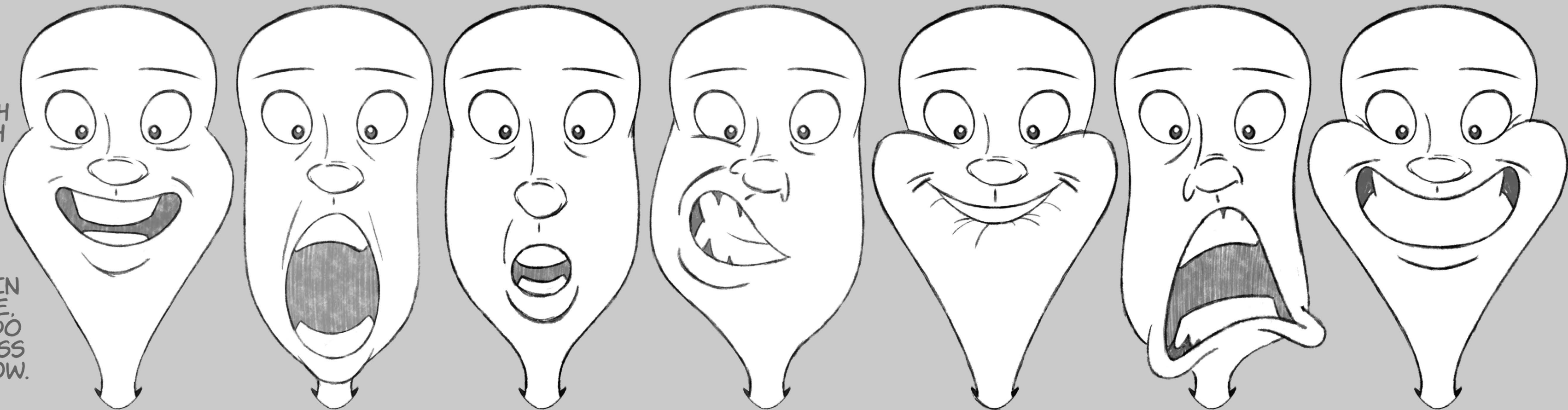
THE JAW IS EXTREMELY MOBILE. IT MOVES UP AND DOWN, SIDE TO SIDE, AND FRONT TO BACK, ALLOWING CIRCULAR MOVEMENT.

MOST OF THE SPEAKING IS DONE BY THE TONGUE.



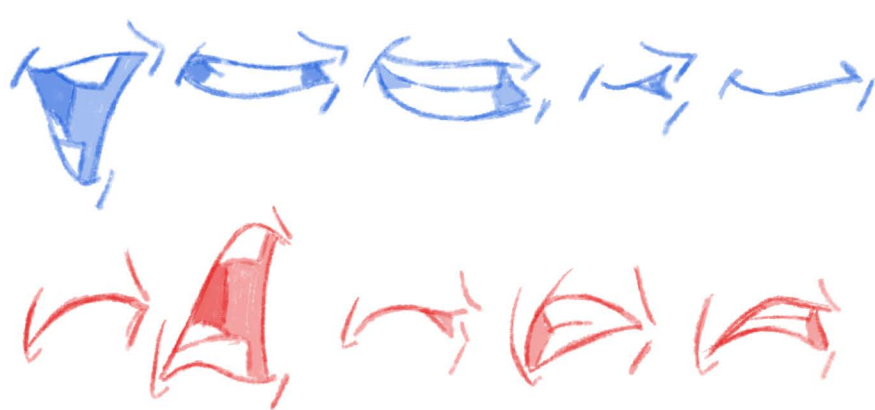
KEEP THE FACE CHEWY WHEN DRAWING MOUTH SHAPES.
SQUASH & STRETCH THE JAW & MOUTH AS NEEDED.

WHEN ANIMATING IN A CARTOONY STYLE, THE UPPER TEETH DO MOVE, BUT MUCH LESS THAN THE LOWER ROW.



THE A/F DIALOG SYSTEM USED IN TV ANIMATION. THE LETTERS A-F DO NOT CORRESPOND TO PHONETIC SOUNDS. THEY'RE JUST TEXT LABELS. TV CARTOONS, WHETHER DRAWN OR FLASH/CGI, USE THIS SYSTEM.

SOME PRODUCTIONS ADD SPECIALIZED MOUTHS FOR SPECIFIC PHONEMES, E.G. THE 'L' AND 'F' SHAPES.



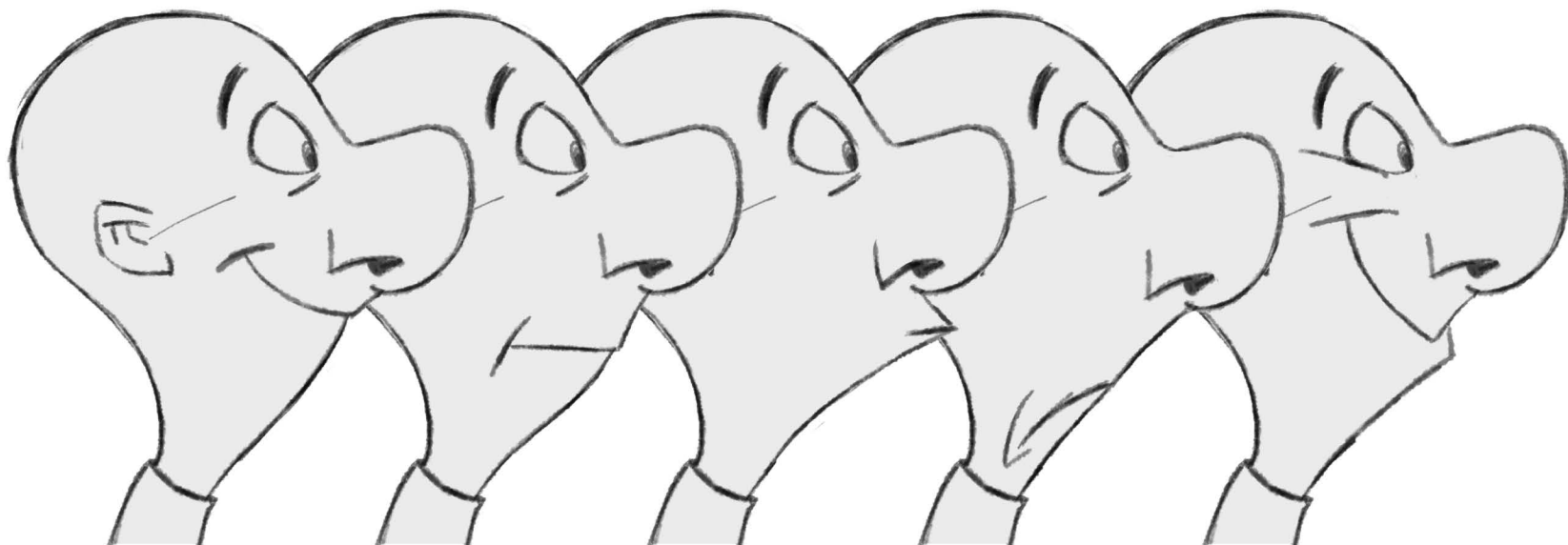
MOUTHS FROM THE **UPPER ROW** WILL ANIMATE INTO ONE ANOTHER SMOOTHLY.

MOUTHS FROM THE **LOWER ROW** WILL ANIMATE INTO ONE ANOTHER SMOOTHLY.



BUT... GOING FROM ONE TO THE OTHER AND BACK AGAIN LOOKS CHOPPY.

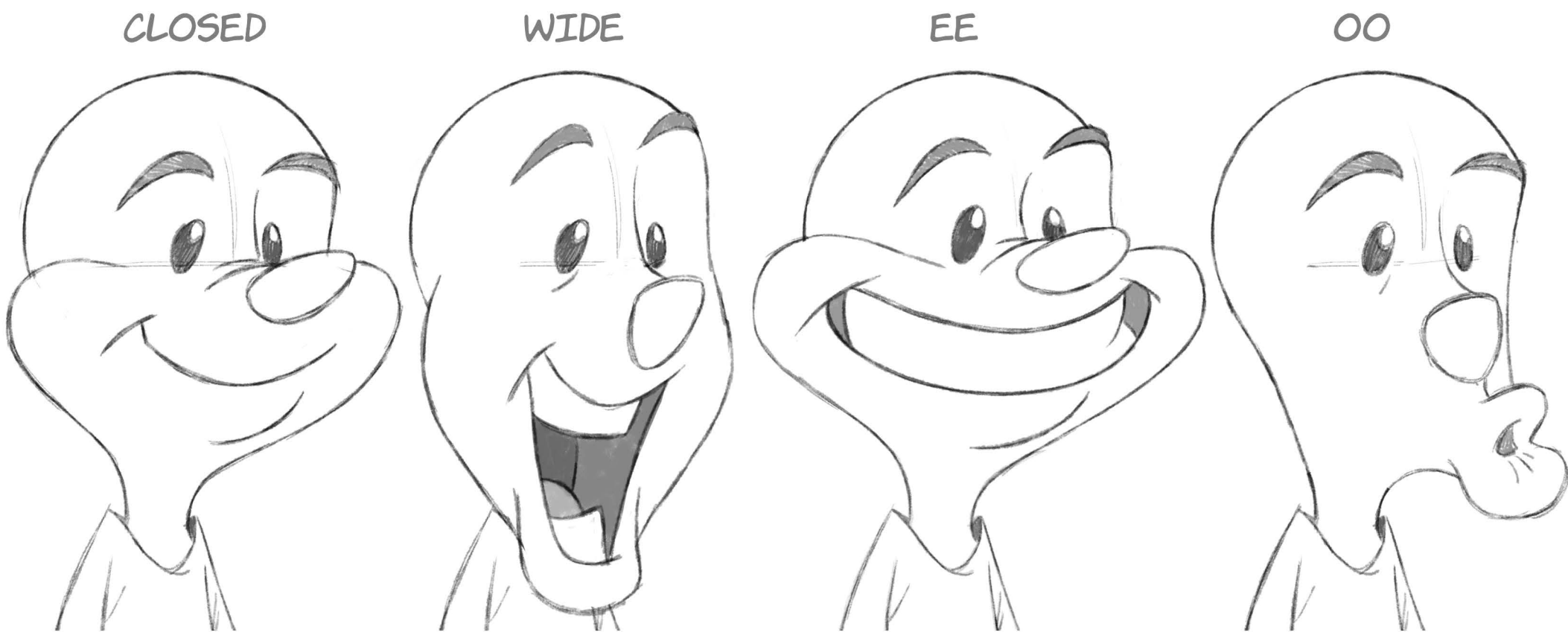
KEEP LOOKING FOR FRESH MOUTH SHAPE DESIGNS.



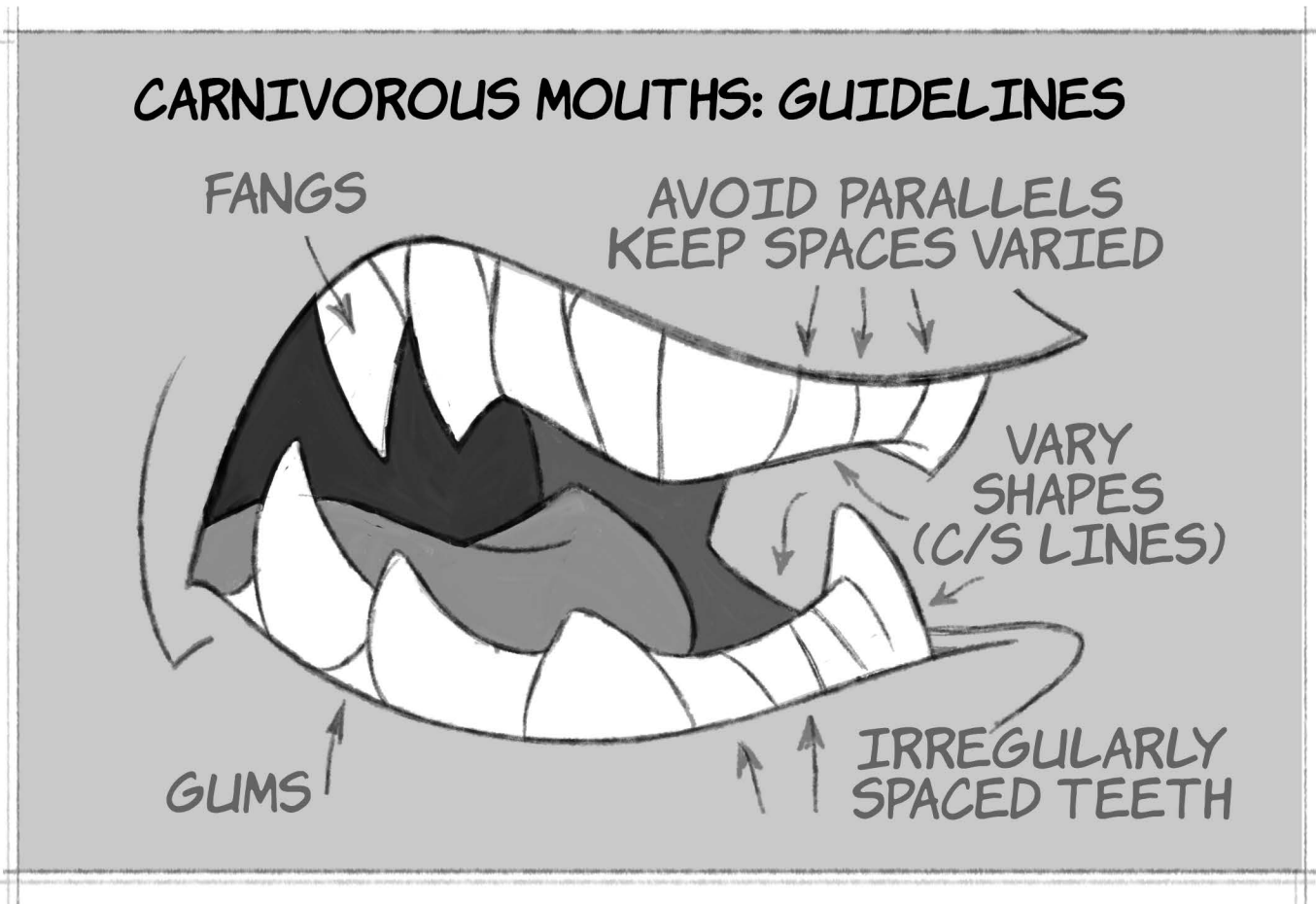
REMEMBER: YOU ARE NOT LIMITED TO A STATIC LIBRARY OF SIX DESIGNS. THERE IS A MASSIVE VARIETY OF ANY MOUTH TYPE. E.G. HERE ARE FIVE VARIANTS OF THE CLOSED 'A' MOUTH.

03_05: CARTOONY MOUTHS

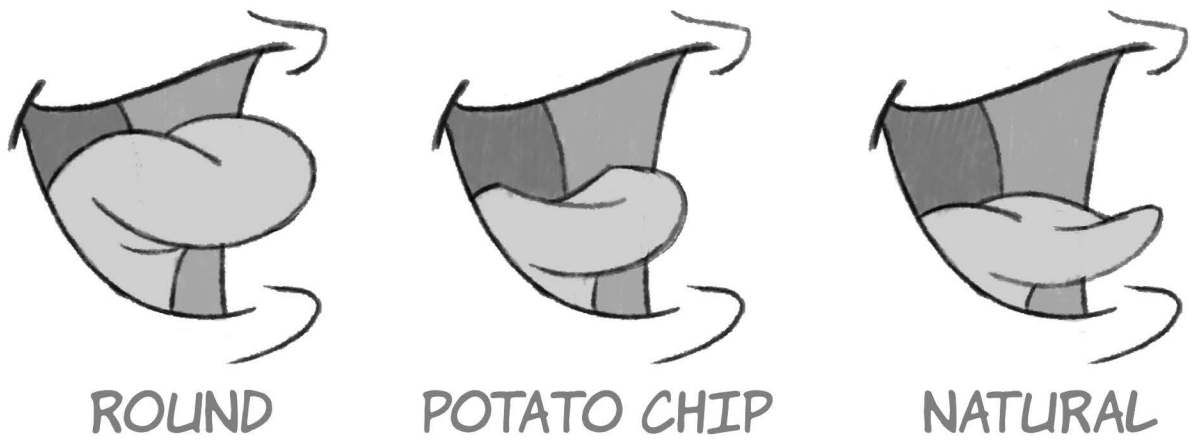
THESE ARE THE FOUR MOST IMPORTANT BASIC MOUTH FORMS.



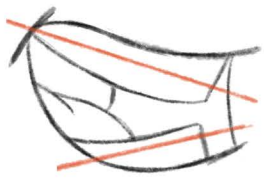
TEETH CAN BE DRAWN WITH DIFFERENT DEGREES OF DETAIL / PENCIL MILEAGE.



VARIETIES OF TONGUE DESIGN:



A TOOTH TRICK:

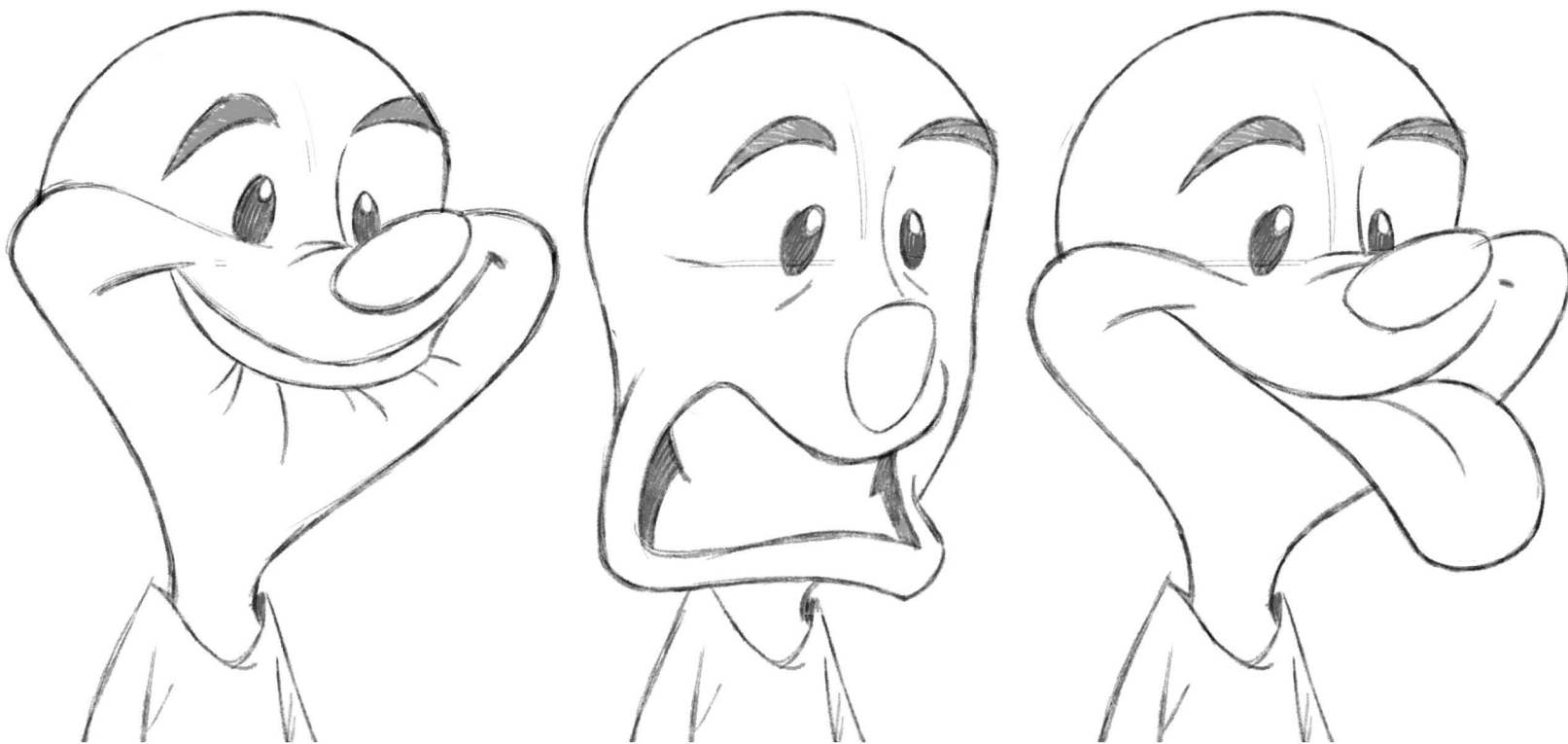


CREATE A STRONG
MOUTH SHAPE BY
OFFSETTING THE
TEETH.



THIS ISN'T STRICTLY
ANATOMICALLY CORRECT,
BUT IT LOOKS GOOD!

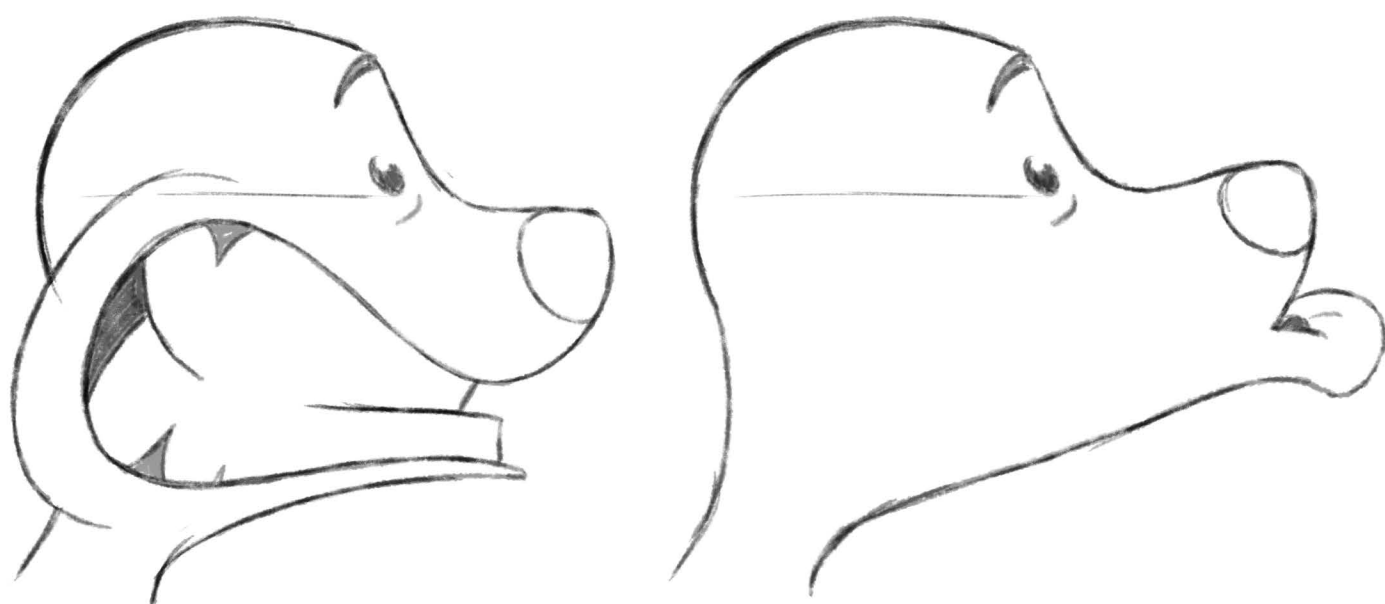
OF COURSE YOU CAN CREATE CUSTOM SHAPES IN ADDITION TO THESE.



SOMETIMES TRICKY ANGLES CAN'T BE AVOIDED.



WHEN FACED WITH THESE CHALLENGES, TRY TO
KEEP YOUR SOLUTION CLEAR AND SIMPLE.



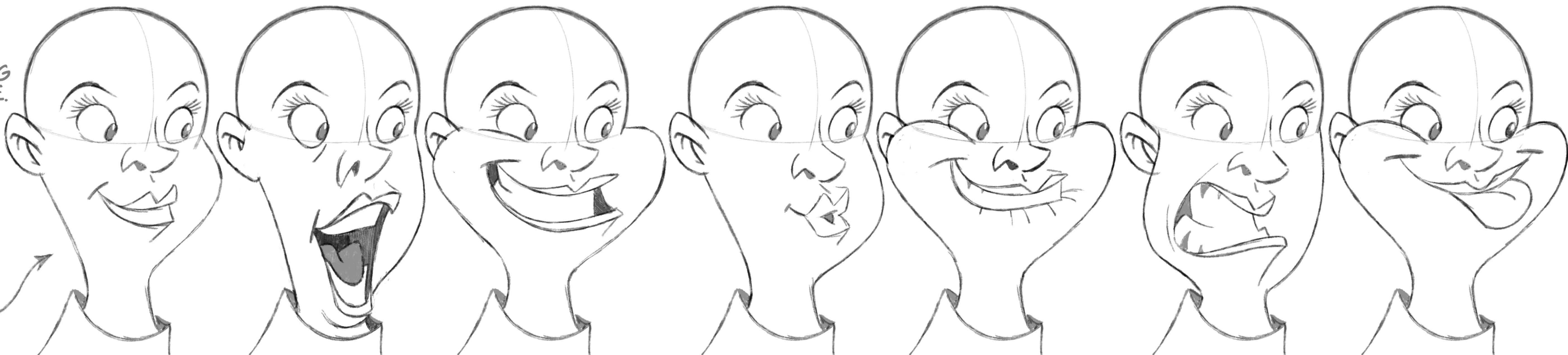
STAY FLEXIBLE. PUSH THE MODEL AS FAR AS YOU CAN.

03_05: CARTOONY MOUTHS

THERE'S A TENDENCY TO REIN IN WHEN DRAWING A FEMALE FACE.

THIS IS A MISTAKE. DO NOT BE LIMITED IN YOUR APPROACH.

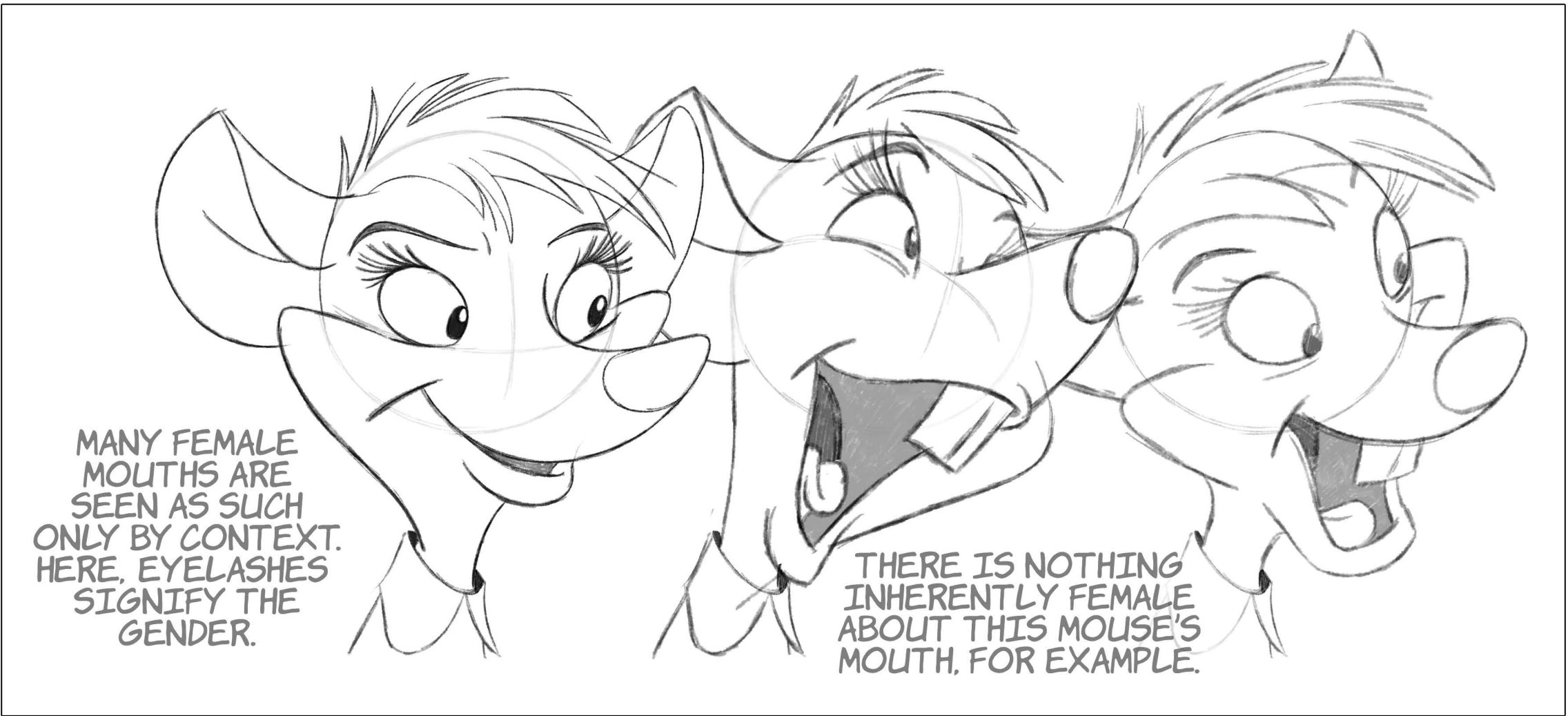
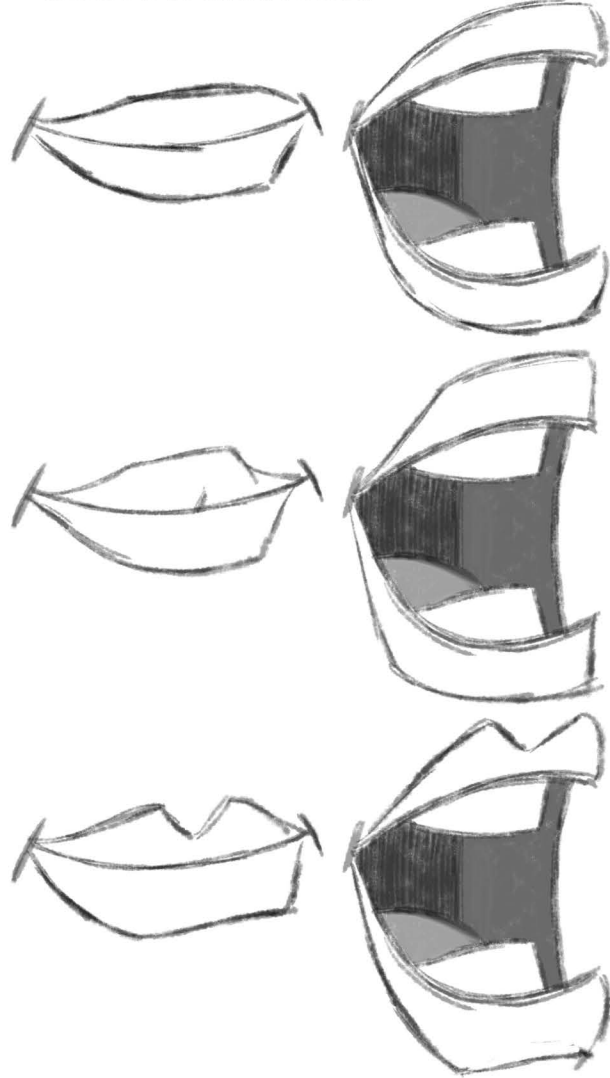
PUSH THE DESIGN!



FEMALE LIP STYLES.
NOTE USE OF CURVES/STRAIGHTS,
AND BREAKS ON CURVES.



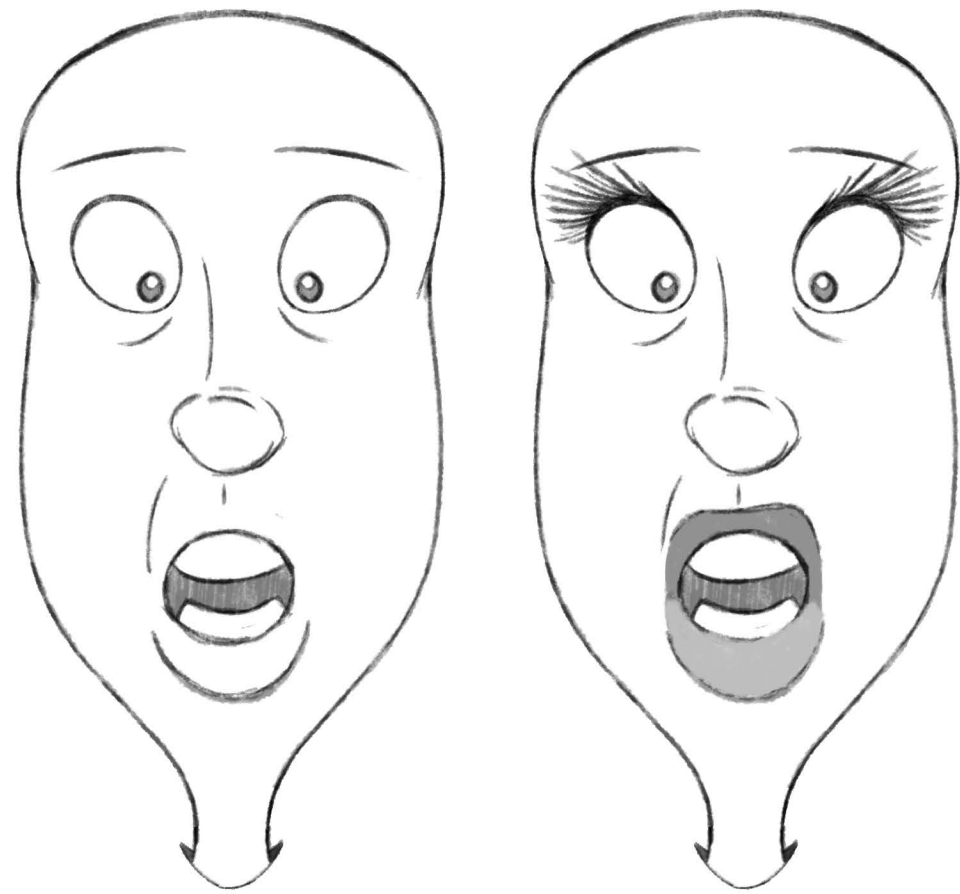
MANY VARIATIONS ARE POSSIBLE WITH BOLDER CHANGES.



MANY FEMALE MOUTHS ARE SEEN AS SUCH ONLY BY CONTEXT. HERE, EYELASHES SIGNIFY THE GENDER.

THERE IS NOTHING INHERENTLY FEMALE ABOUT THIS MOUSE'S MOUTH, FOR EXAMPLE.

MANY DESIGNS ARE NOT SPECIFICALLY MALE OR FEMALE. ADDING LIPSTICK, EYELASHES OR LONG HAIR IS OFTEN ENOUGH TO TRANSFORM GENDER.

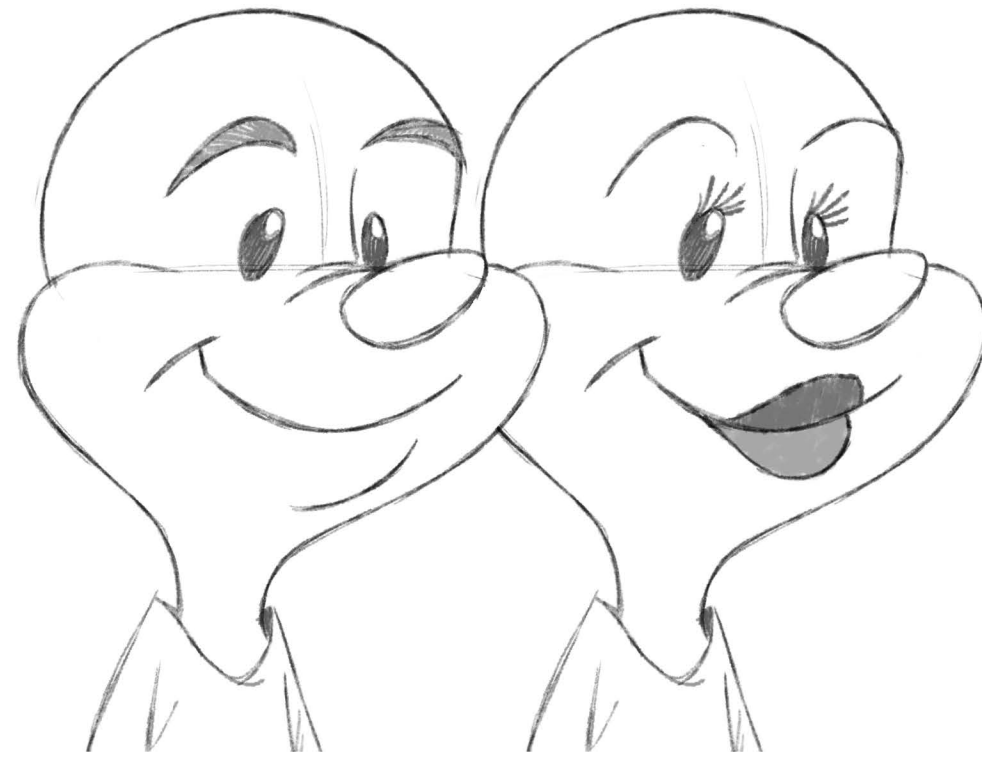


CHARACTERS HAVE NO OBLIGATION TO BE BEAUTIFUL OR YOUNG, OR EVEN TO HAVE TEETH.

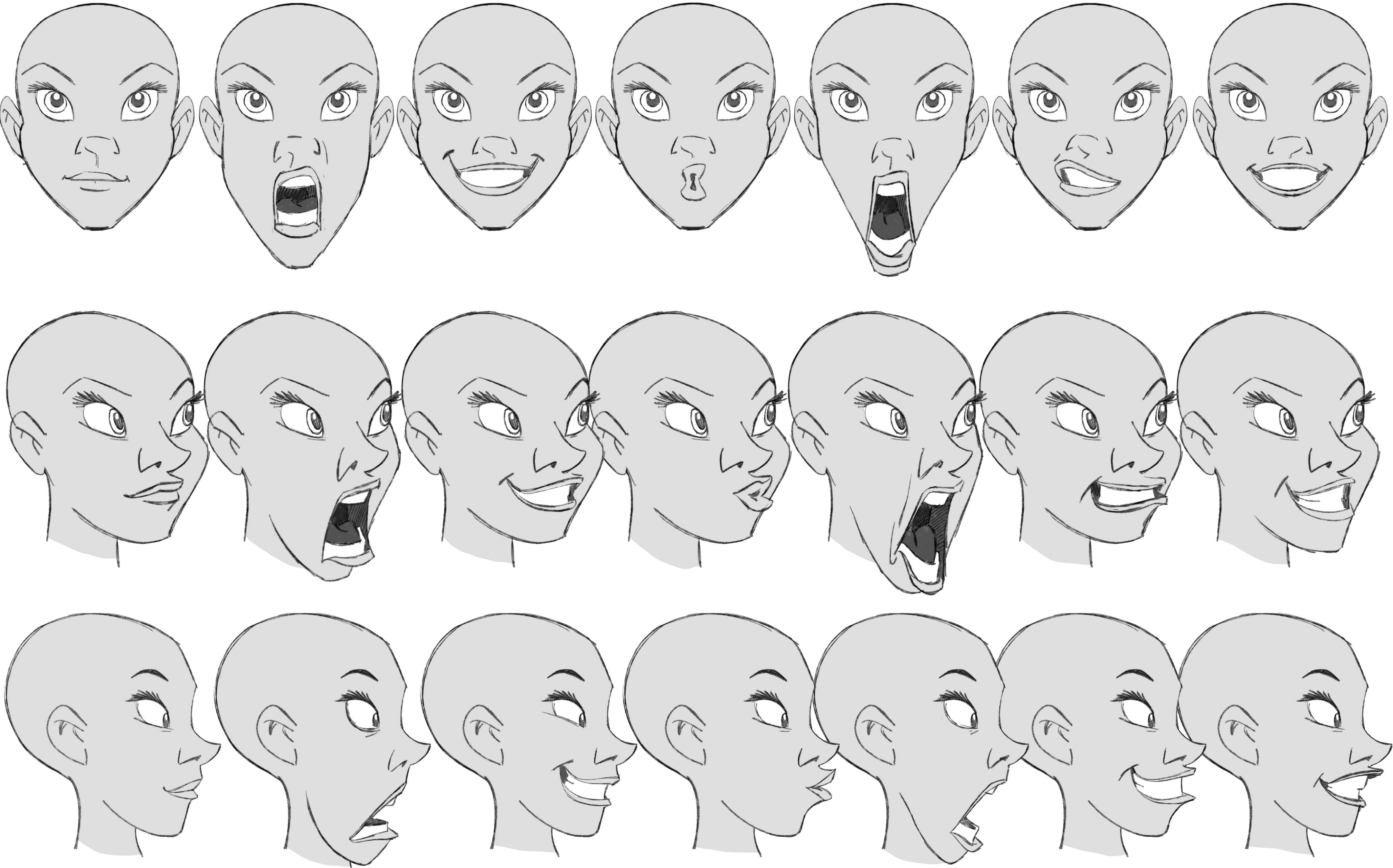
THESE IMAGES ARE GUIDES TO FURTHER IDEAS. EXPERIMENT WITH DIFFERENT AGES AND GENDER.



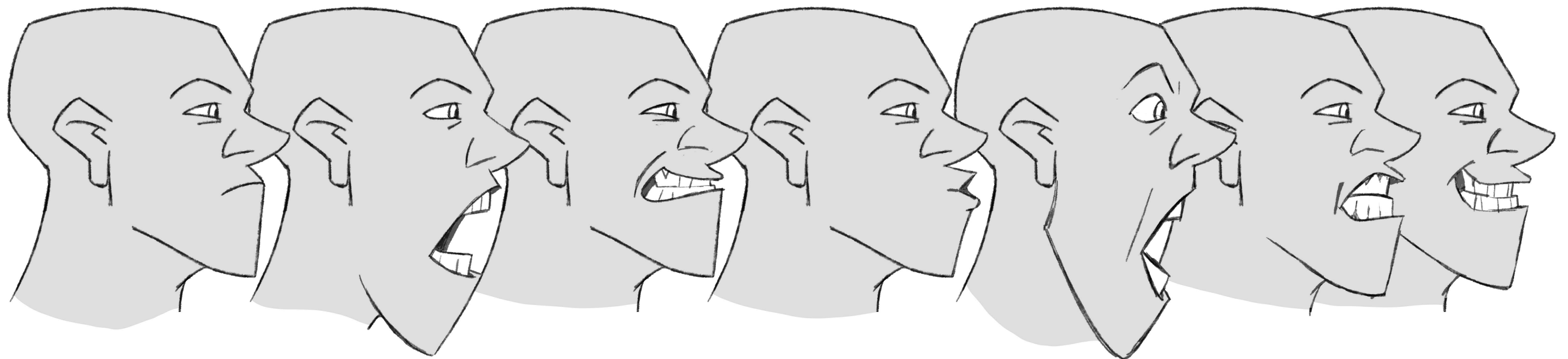
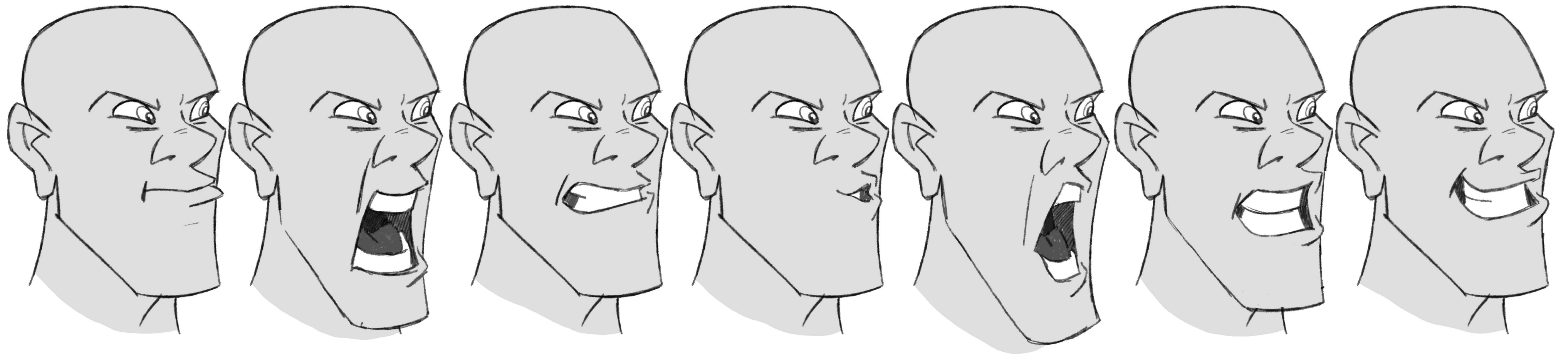
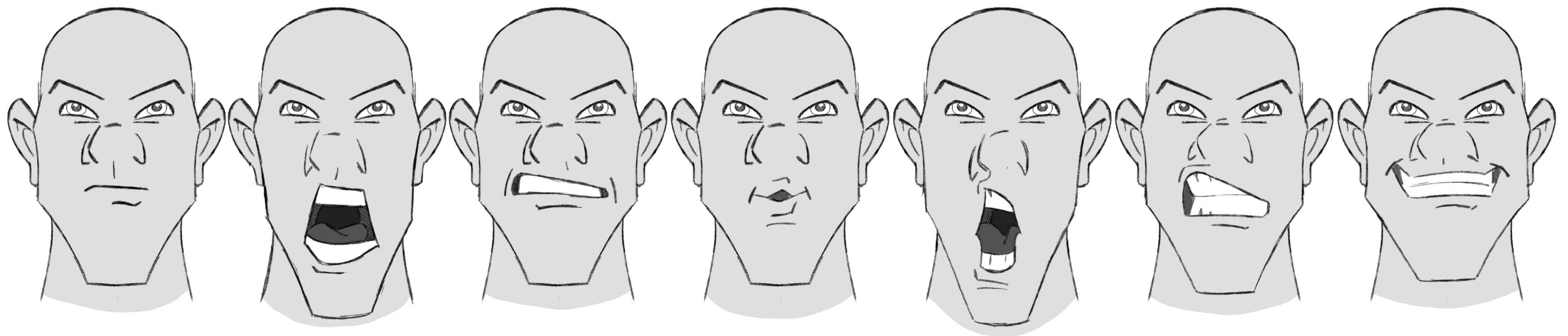
THIS TECHNIQUE CAN SAVE DESIGN TIME.



O3_O6: MOUTHS (REALISTIC FEMALE)



03_06: MOUTHS (REALISTIC MALE)

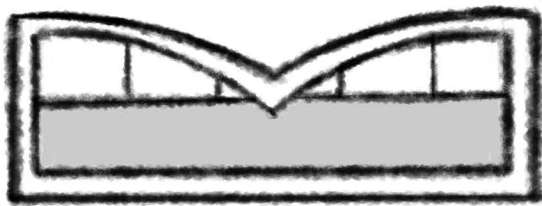


03_06: MOUTHS (STYLIZED)

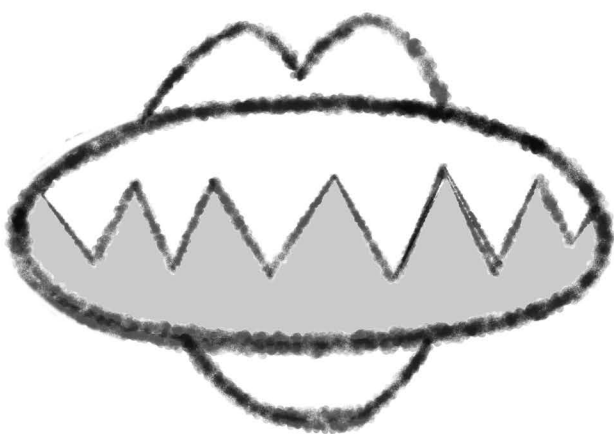
TRY BUILDING A SERIES OF MOUTH SHAPES FOR DIALOG, BUT USE ONLY THE MOST SIMPLE, GRAPHIC SHAPES.

TEST THE DESIGN BY APPLYING THESE SHAPES:
CLOSED, OPEN, EE AND OO:

'BOW TIE'



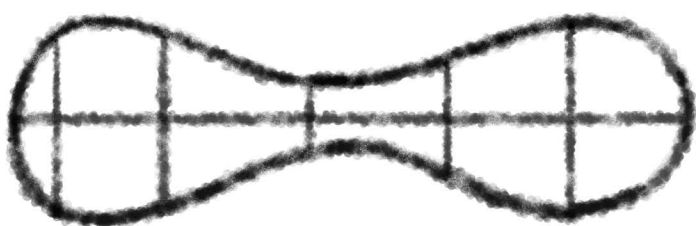
'LFO'



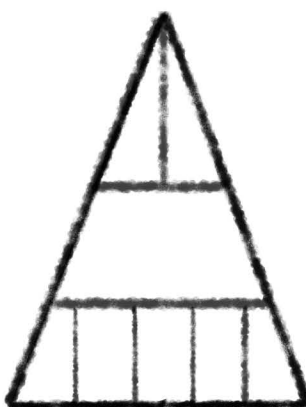
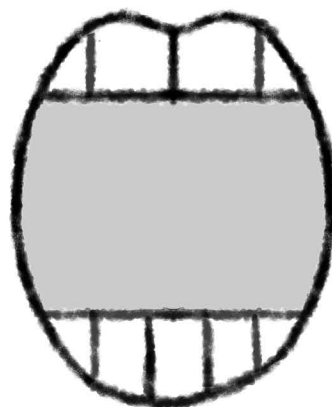
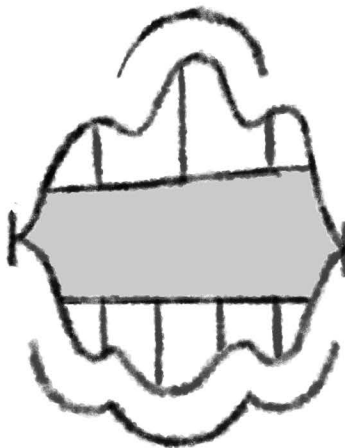
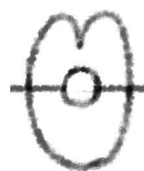
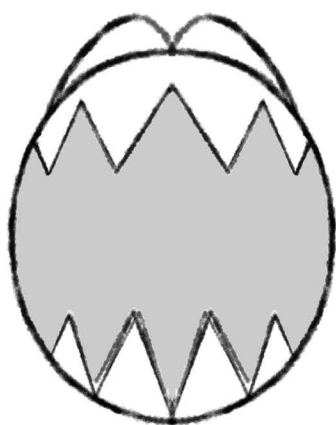
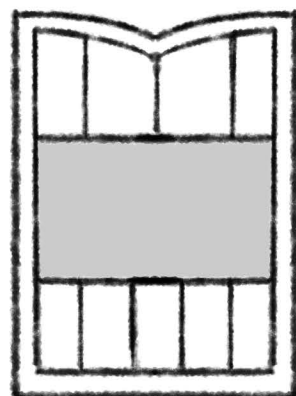
'WAVE'



'PEANUT'



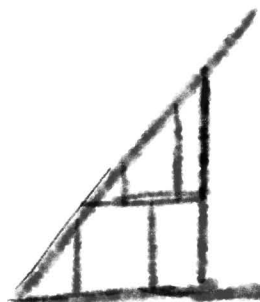
'PYRAMID'



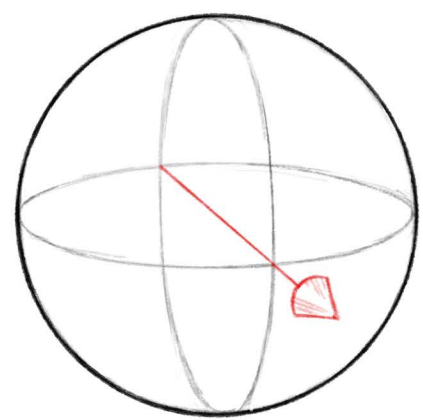
MANY TV SHOWS TODAY USE VERY SIMPLE, GRAPHIC STYLES FOR MOUTHS; BEING ABLE TO WORK WITH SIMPLE SHAPES IS AN ASSET.



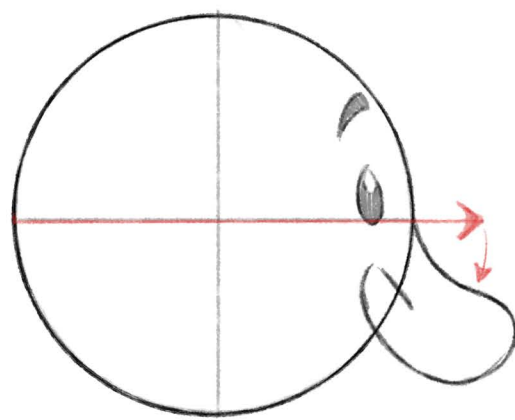
JUST BECAUSE THE MOUTH DESIGNS ARE GEOMETRICAL, YOU DON'T HAVE TO FEEL TRAPPED WITH A NARROW RANGE OF MOVEMENT. IT MAY BE POSSIBLE TO COAX INTERESTING AND FLEXIBLE SHAPES FROM SUCH SIMPLE DESIGNS.



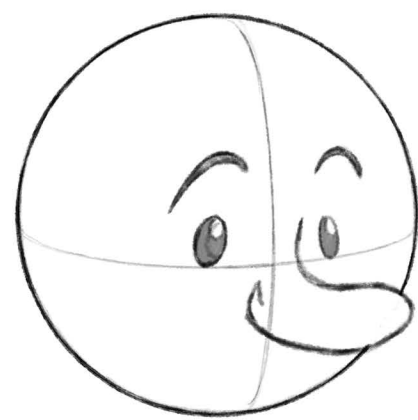
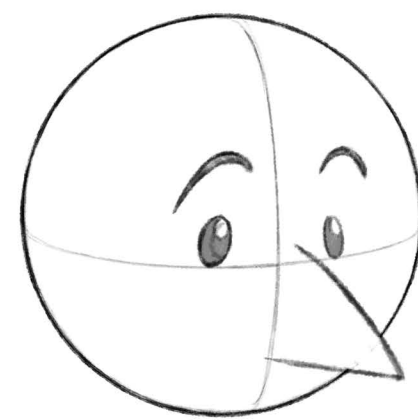
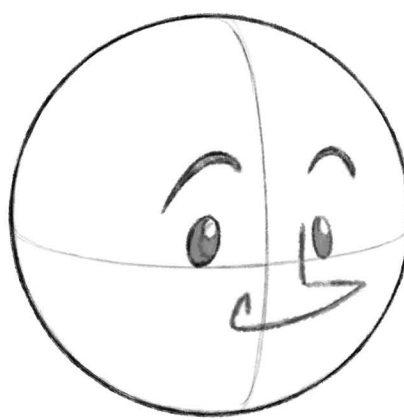
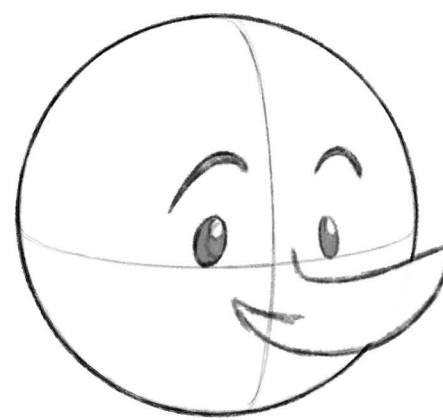
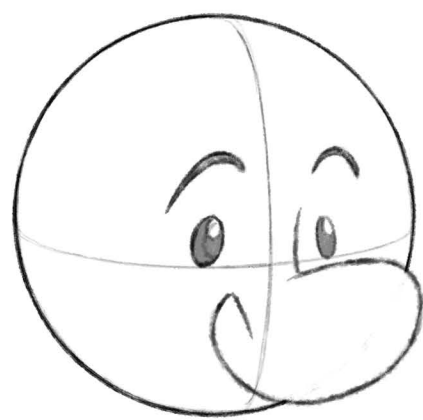
03_07: NOSES (CARTOONY)



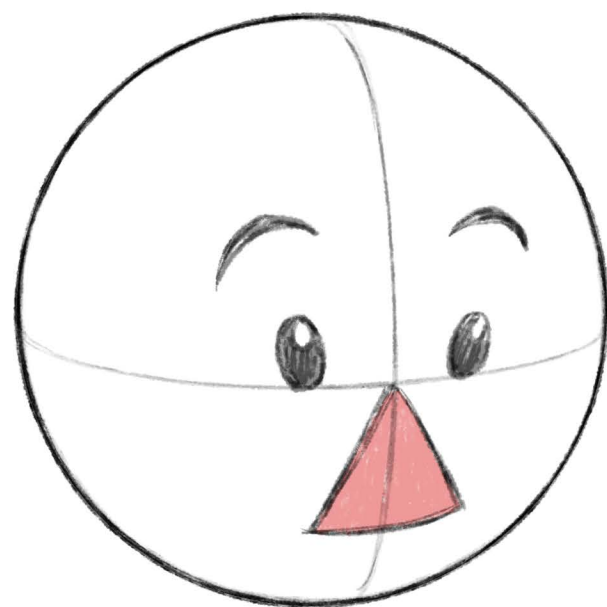
IMAGINE A LINE FROM THE BACK OF THE HEAD THROUGH THE FRONT.



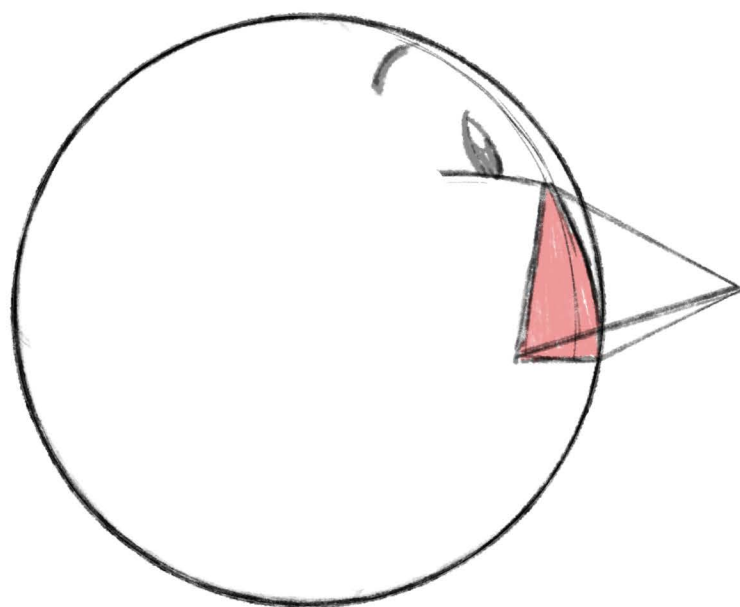
THIS IS A USEFUL GUIDE, EVEN IF THE NOSE IS ANGLED.



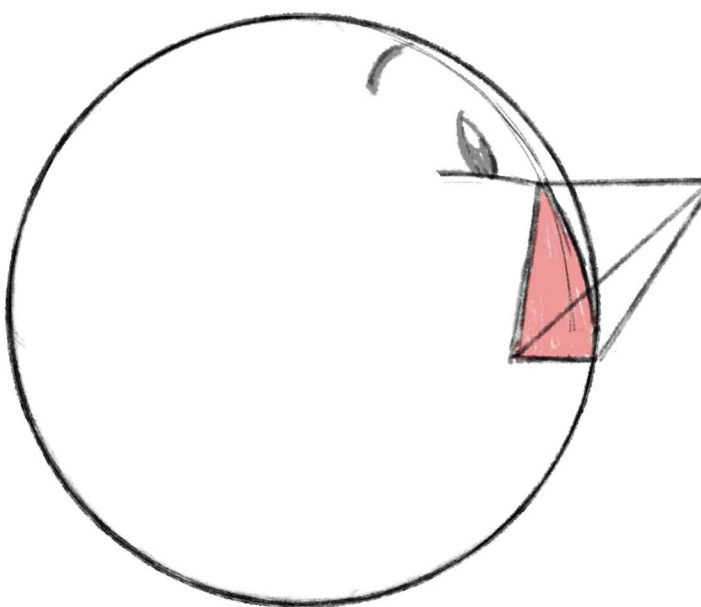
THERE ARE MANY NOSE DESIGNS IN TRADITIONAL CARTOON STYLES. THESE SIX ARE A SMALL SAMPLE TO SHOW SOME OF THE VARIETY POSSIBLE.



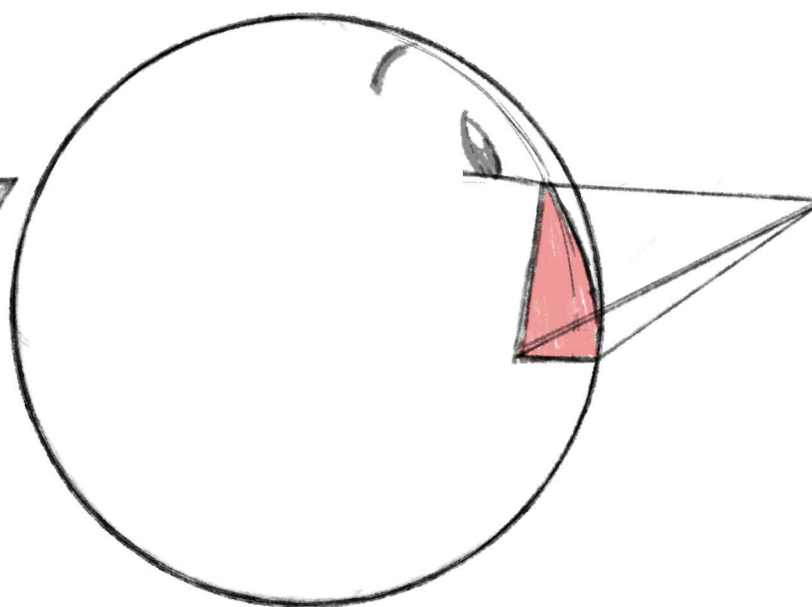
IMAGINE THE NOSE FIXED TO THE SKULL BY A TRIANGLE.



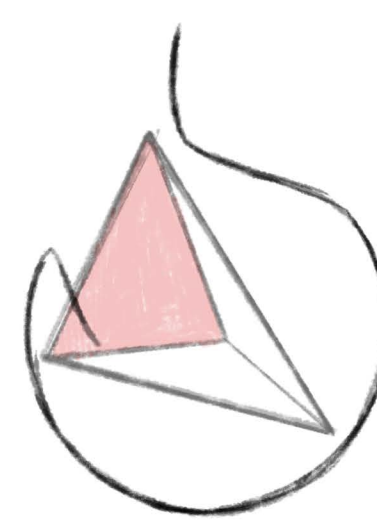
THE NOSE IS DRAWN AROUND THIS IMAGINARY PYRAMID.



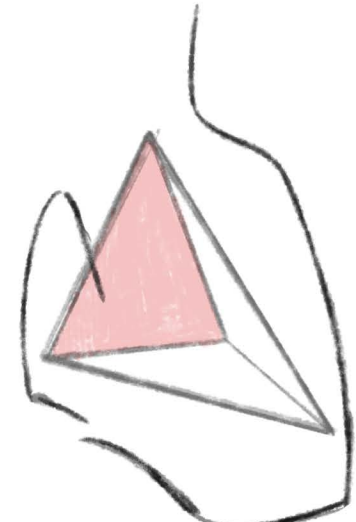
VARY THE POINT OF THE NOSE AS YOUR DESIGN REQUIRES.



VARY THE LENGTH OF THE NOSE AS YOUR DESIGN REQUIRES.



THE CORNERS OF THE TRIANGLE SUGGEST NOSTRIL POSITIONS.



DIFFERENT DESIGNS CAN BE BUILT OVER IT.



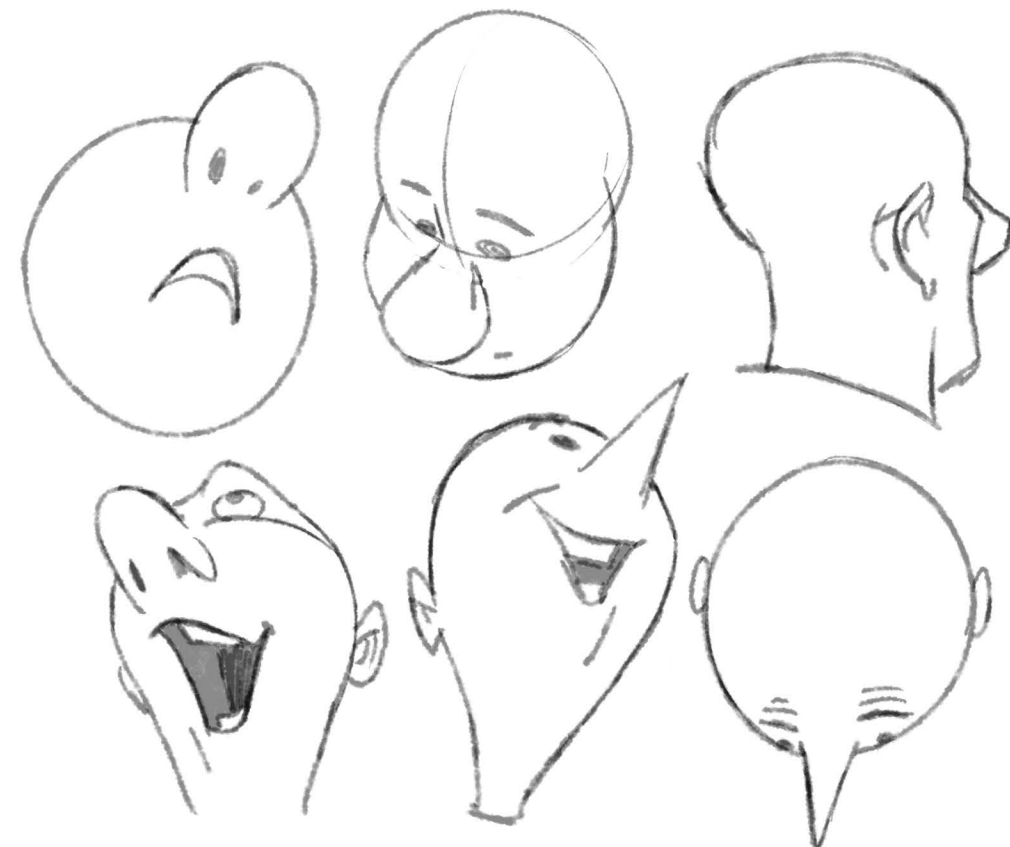
EVEN AN AREA AS SIMPLE AS THE CORNER OF THE NOSE CAN BE DRAWN IN A MULTITUDE OF WAYS.



YOU DON'T HAVE TO DRAW THIS PYRAMID EVERY TIME. IT'S OFTEN ENOUGH TO IMAGINE THAT IT'S THERE.



DON'T BE INHIBITED WHEN DESIGNING. EXPERIMENT WITH DIFFERENT SHAPES AND STYLES. YOU MAY FIND THAT A SIMPLE GEOMETRIC TRIANGLE WORKS BEST.



A SELECTION OF NOSES IN COMMON TROUBLESOME ANGLES.

03_07: NOSES (REALISTIC)



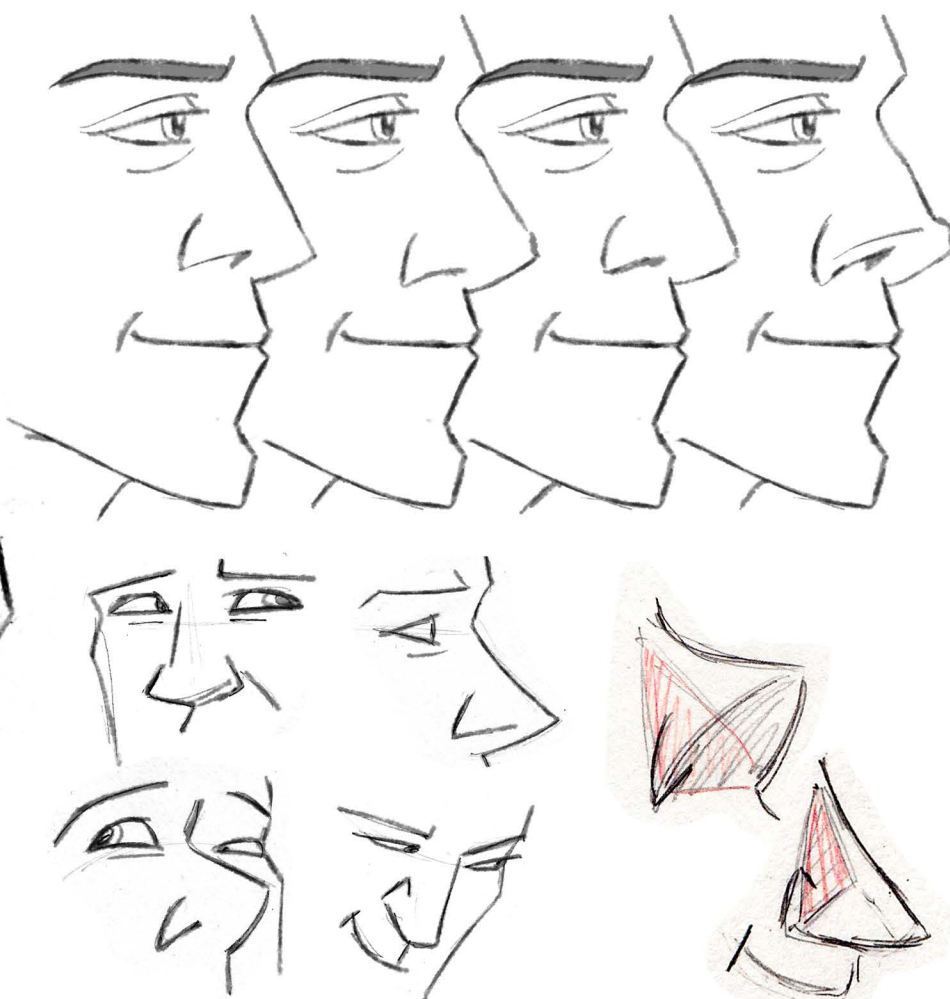
JUST BECAUSE YOU'RE DRAWING A REALISTIC FACE, DOESN'T MEAN YOU CAN'T SIMPLIFY OR STYLIZE IT.



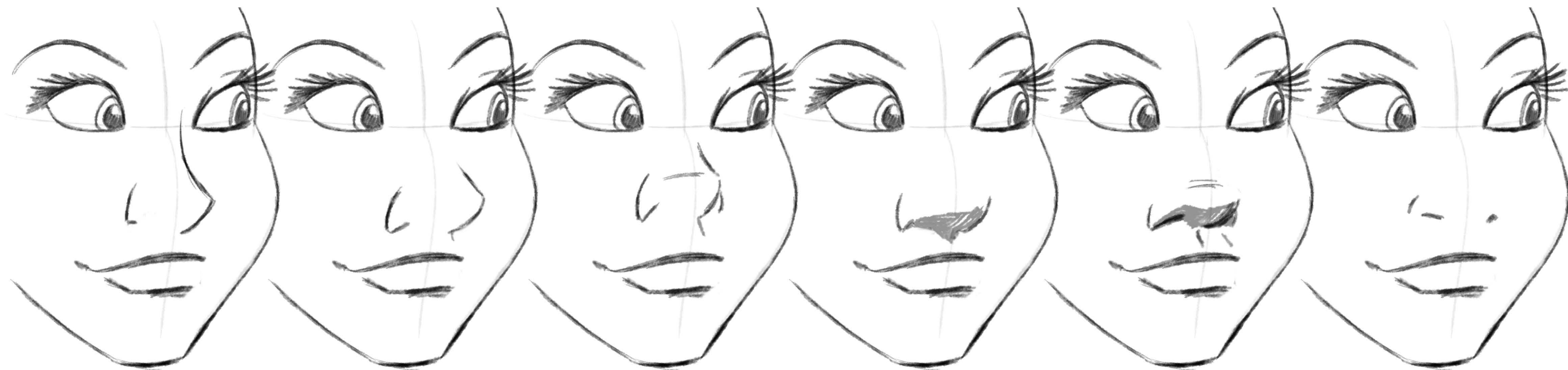
DON'T BE AFRAID TO PUSH OR EXAGGERATE THE FEATURES.



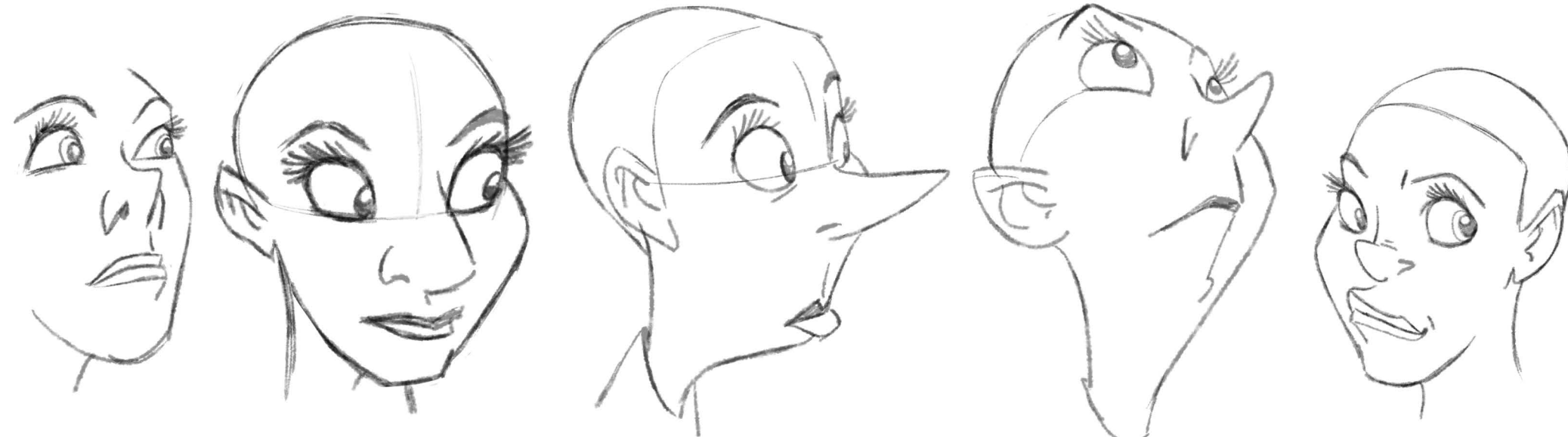
EVEN THE NOSE IS FLEXIBLE: THE TIP AND CORNERS REACT TO EXPRESSIONS, AND SQUASH & STRETCH.



4 OR 5 BASIC LINES CAN BE ENOUGH TO 'READ' AS A NOSE. REMEMBER THE PYRAMID FORM CONSTRUCTION.



DIFFERENT TREATMENTS OF THE SAME NOSE, FROM LINEAR (3 LEFT IMAGES) TO LIGHT BASED (3 RIGHT IMAGES).



YOU DON'T HAVE TO STICK TO THIS PIXIE/ CURVED FORMULA. IN REALITY, FEATURES ARE NOT SO LIMITED.

TRY OUT NOSE SHAPES THAT MIGHT SEEM TOO STRAIGHT OR MASCULINE. TO SEE IF THEY WORK.

THERE IS A CONTINUUM OF STYLES BETWEEN CARTOONY AND REALISTIC.



VARIATIONS OF NOSE STYLES AND PROFILES.

03_08: EARS

THIS PATTERN ALLOWS YOU TO DRAW A STRONG EAR SHAPE.

THIS LINE DOESN'T NEED TO BE 100% STRAIGHT. JUST LESS CURVY THAN THE OTHER LINES.

NEXT, DRAW THE INNER LINES.

OF COURSE, YOU CAN VARY THIS FORMULA.

AS LONG AS YOUR VARIATION IS A STRONG DESIGN, WITH GOOD SHAPES.

HERE THE SAME METHOD IS USED TO CREATE A MORE FEMININE OR NATURAL EAR.

AVOID THIS STYLE OF EAR. IT'S TOO CURVY; THERE ARE NO BREAKS; IT'S MOSTLY PARALLELS, AND LOOKS DULL.

EVEN WITHOUT ADDING STRAIGHTS, SOME SMALL BREAKS ADD INTEREST.

TAKING THIS APPROACH FURTHER, ADD STRONGER STRAIGHTS AND MORE BREAKS TO DIFFERENTIATE THE CURVED LINES.

SMALL ADJUSTMENTS TRANSFORM THE CARTOON EAR INTO A MORE REALISTIC ONE.

THE SAME PRINCIPLES ARE HERE APPLIED TO THE DESIGN OF A MORE REALISTIC EAR.

3 QUARTER REAR VIEW

ELF EAR

JUST ADD A POINT!

VARIOUS DESIGNS

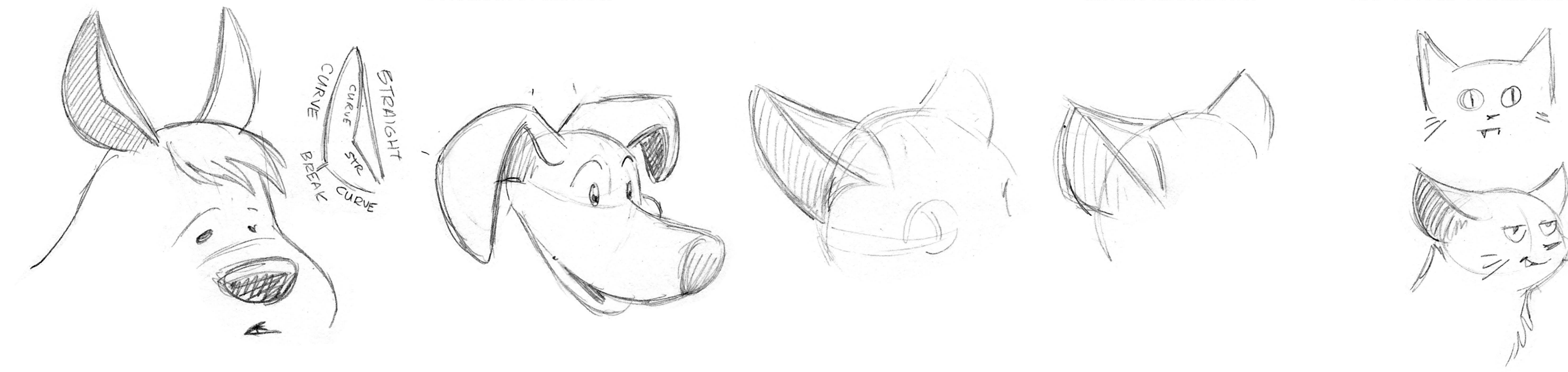
ANIMAL EARS EXIST IN A MUCH GREATER VARIETY...

BUT THE BASIC PRINCIPLES ARE THE SAME: GOOD SHAPES, WITH STRAIGHTS/CURVES.

IF YOU GET STUCK, DRAW A REALISTIC VERSION OF THE EAR.

THEN TRY OUT VARIOUS DESIGN INTERPRETATIONS.

OR START AT THE MOST SIMPLE, AND WORK YOUR WAY TOWARD NATURALISM.



03_09: DETAILS

ADDING WARTS, FRECKLES, BUMPS, GLASSES, JEWELRY AND WRINKLES.



TO CONVERT A HUMAN FACE INTO A MONSTER:



ADD FRECKLES AND/OR WARTS.



BROW RIDGES.

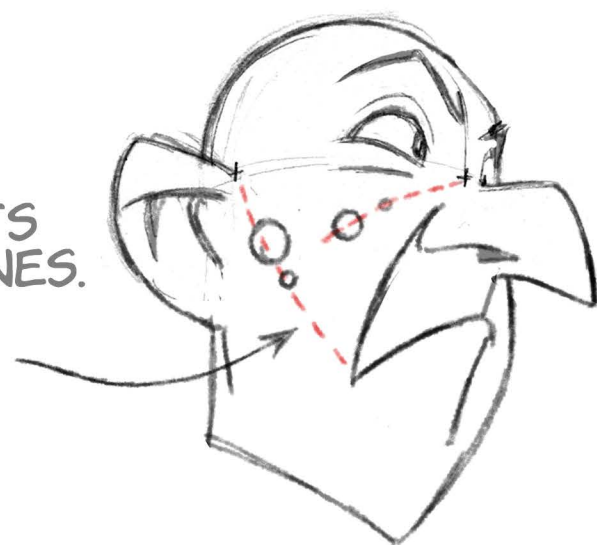


POINTY EARS/ CONEHEAD.

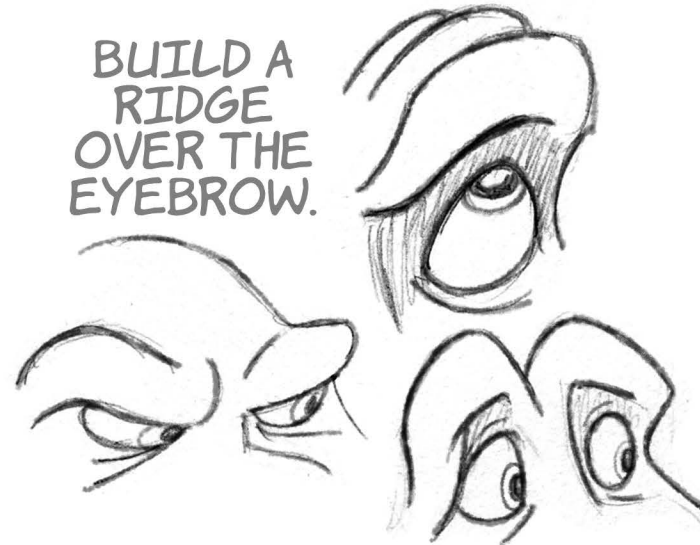


TUSKS, HAIR & WRINKLES.

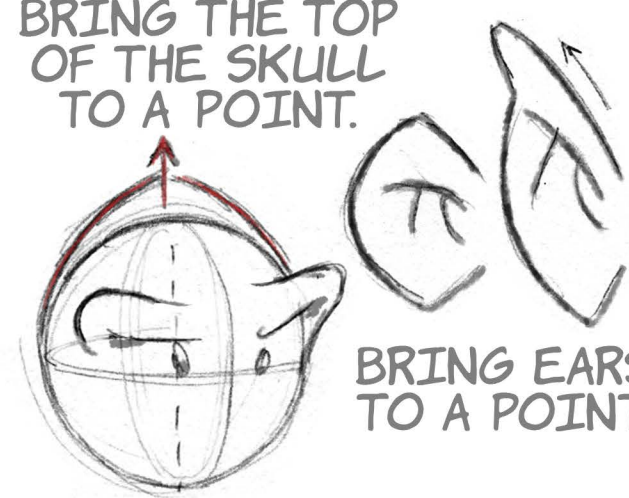
BUILD THE FRECKLES/WARTS ON A GRID OF INVISIBLE LINES. THIS WILL PREVENT THEM FROM FLOATING AS YOU DRAW DIFFERENT ANGLES.



BUILD A RIDGE OVER THE EYEBROW.



BRING THE TOP OF THE SKULL TO A POINT.



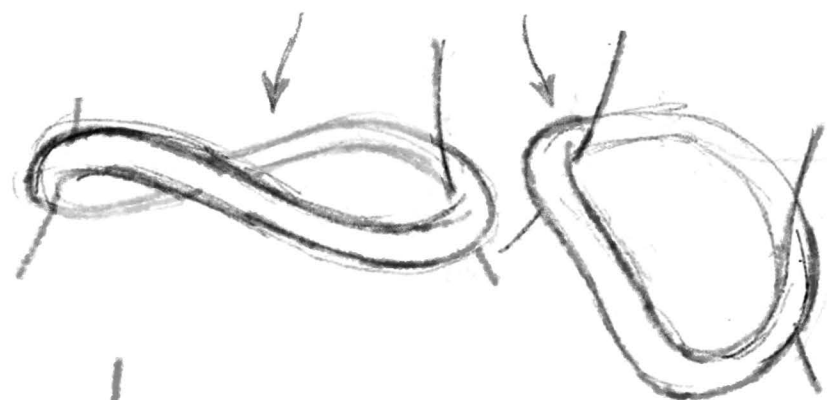
BRING EARS TO A POINT.



HAIRS EMERGE FROM A POINT OF ORIGIN.



TO ADD JEWELRY SUCH AS A NECKLACE, REMEMBER THE CONSTRUCTION / FORM:



THIS BASIC SHAPE CAN THEN BE BROKEN DOWN INTO SMALLER FORMS.

THE BIGGEST CHALLENGE WHEN DRAWING GLASSES IS KEEPING THE RIM FROM CLUTTERING THE EYES OR BROWS. KEEP THE SPACES CLEARLY DEFINED.



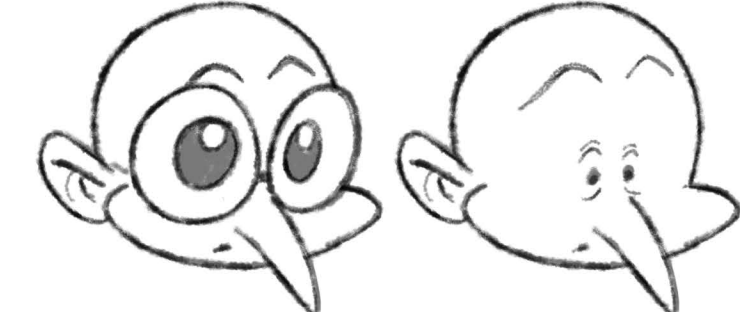
AVOID TANGENTS AND PARALLELS. E.G. HERE THE BROW MERGES WITH THE GLASSES AND LOOKS FUSSY.



CARTOONY STYLES ALLOW THE GLASS LENS TO 'CHEAT' AS THE EYEBALL.



EYE EXTENDS BEYOND THE EDGE OF THE FACE.

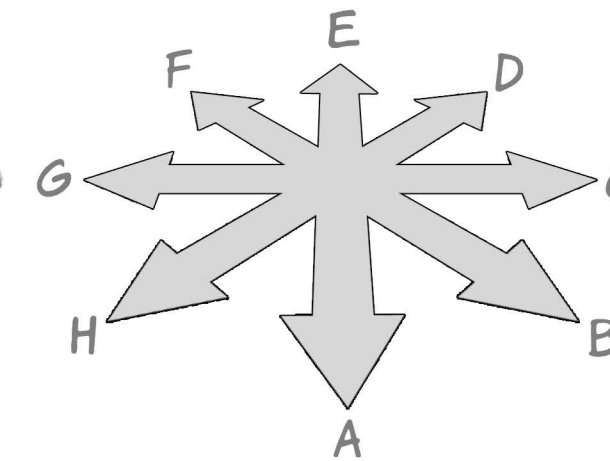
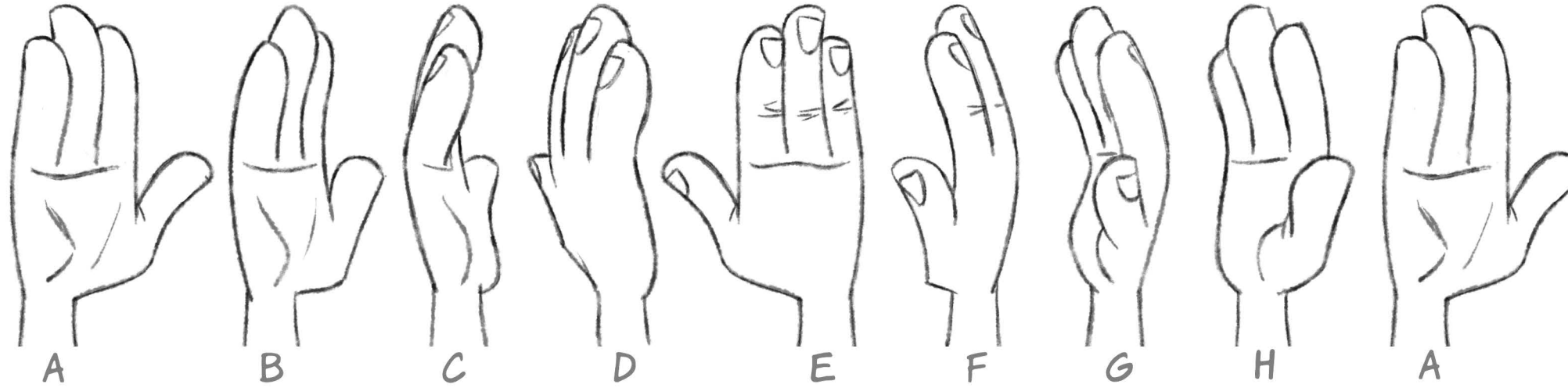


IT'S FUN TO PLAY SIGHT GAGS WITH THE SIZE OF EYES. YOU CAN MAKE THEM HUGE WHEN GLASSES ARE ON, AND TINY DOTS WHEN THEY'RE OFF.

O3_10: HANDS (INTRODUCTION)

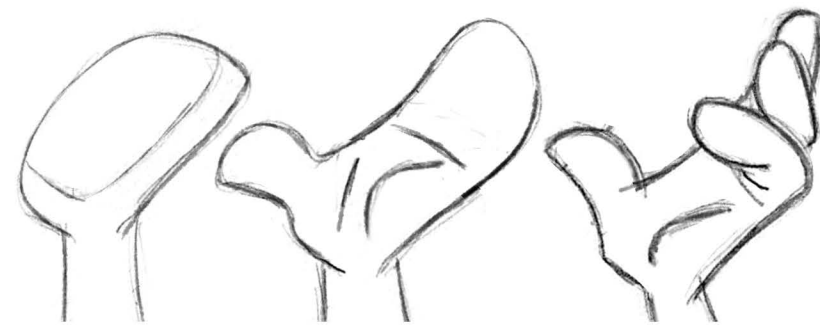
THE COMMON HAND DESIGNS WHEN IN THE MAIN COMPASS DIRECTIONS.

IF STORING A LIBRARY OF HANDS, USE THE LETTERS A THROUGH H TO IDENTIFY THE DIRECTIONS.



THIS NAMING SYSTEM IS VERY IMPORTANT IF YOU ARE SAVING YOUR IMAGES ON A COMPUTER. AS YOUR DRAWINGS WILL BE STORED ALPHABETICALLY, MAKING THEM EASIER TO FIND.

1. DRAW PALM/PAD 2. ADD THUMB & MITTEN 3. ADD FINGERS.



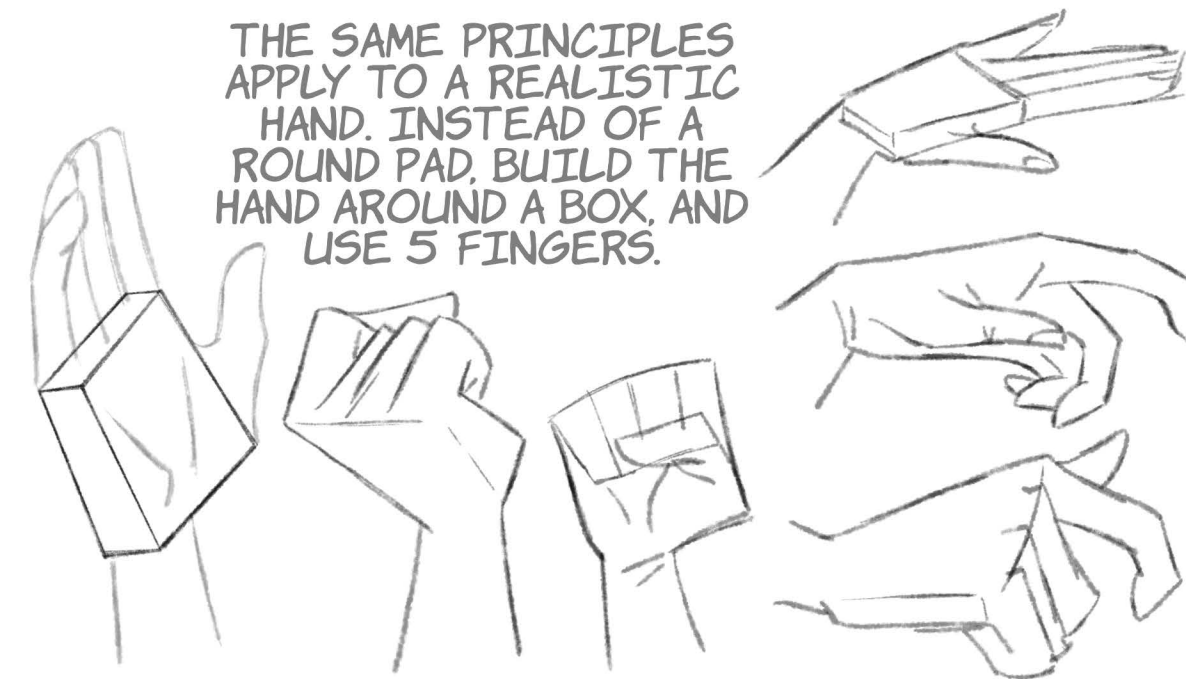
YOU CAN DRAW MANY HAND POSES USING THIS METHOD.



A USEFUL DEVICE IS TO SPLIT OFF ONE FINGER TO BREAK THE MONOTONY.



THE SAME PRINCIPLES APPLY TO A REALISTIC HAND. INSTEAD OF A ROUND PAD, BUILD THE HAND AROUND A BOX, AND USE 5 FINGERS.

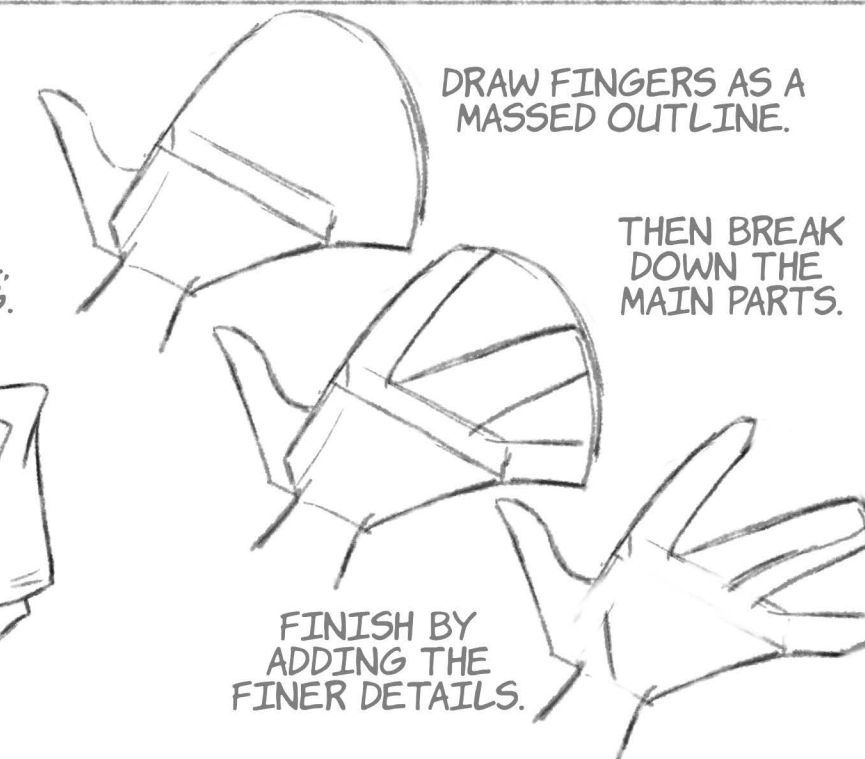


SQUARED OFF KNUCKLES CAN BE MORE ANATOMICAL, AND INTERESTING.

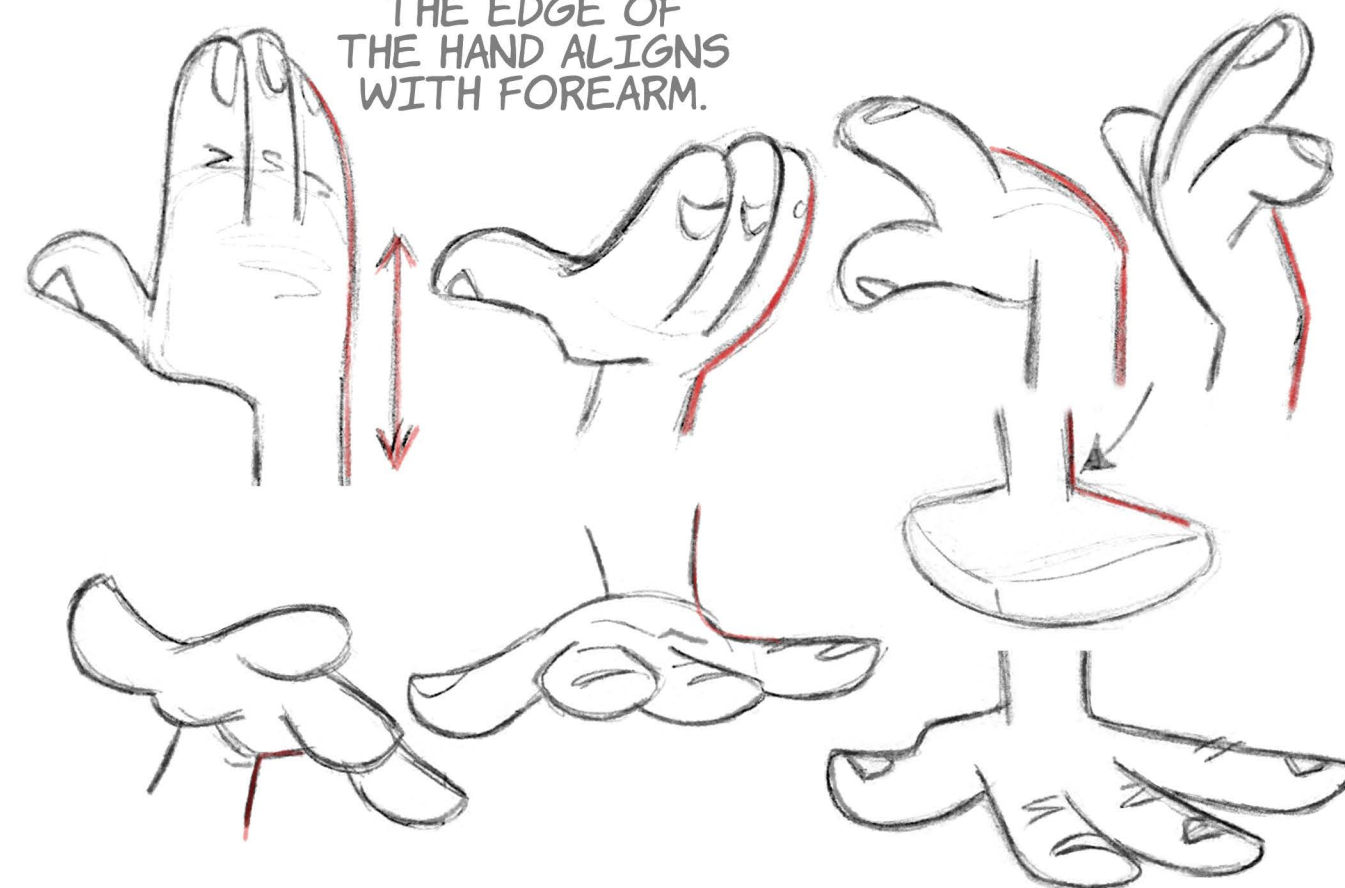
DRAW FINGERS AS A MASSES OUTLINE.

THEN BREAK DOWN THE MAIN PARTS.

FINISH BY ADDING THE FINER DETAILS.



THE EDGE OF THE HAND ALIGNS WITH FOREARM.



FEMININE HANDS: MAKE TIPS POINTIER; THINNER FINGERS; MORE CURVES, THIN WRIST.

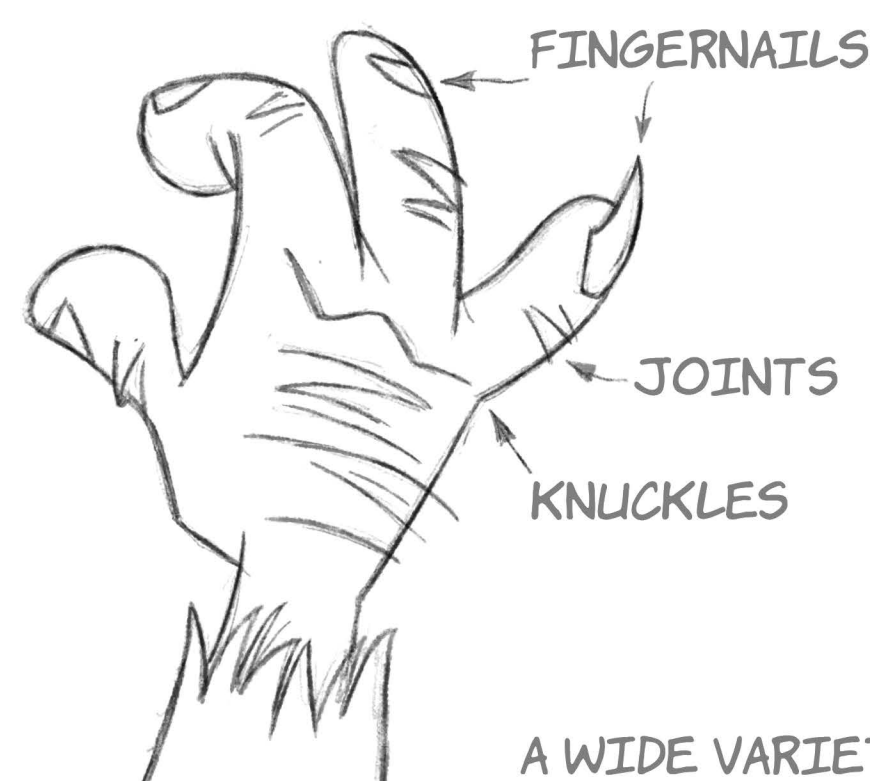


BEND WRIST FOR A FEMALE ATTITUDE.

JUST BECAUSE HANDS HAVE REALISTIC PROPORTIONS, DOESN'T MEAN THAT YOU CAN'T STYLIZE THEM, OR EXPERIMENT WITH THE DESIGN.



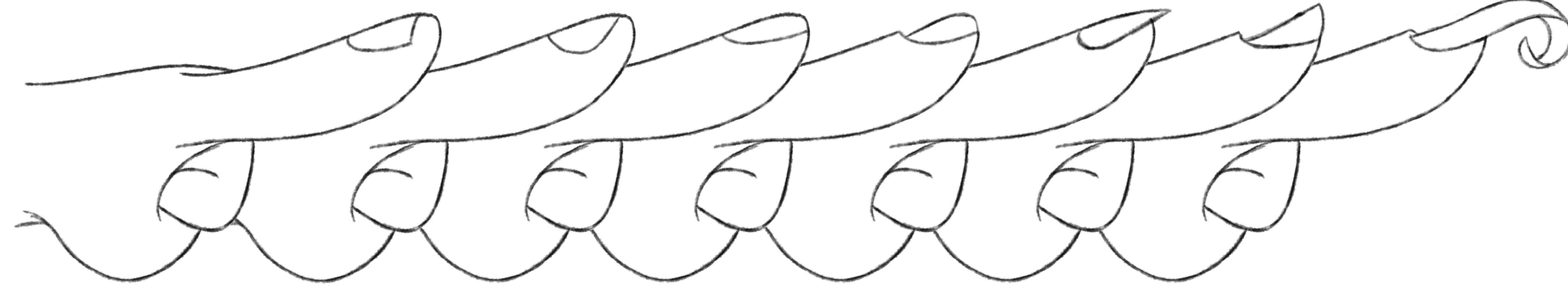
O3_11: HANDS (DETAILS & ISSUES)



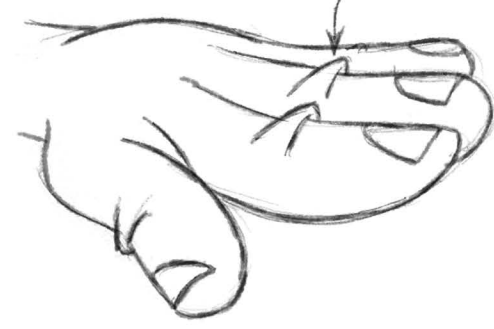
DIFFERENT STYLES OF KNUCKLES, FROM SIMPLE/GRAPHIC TO REALISTIC.



A WIDE VARIETY OF FINGERNAIL STYLES, FROM SIMPLE TO REALISTIC.



OR A FOLD COULD BE USED.



SOME CARTOON HANDS USE 2 JOINTS INSTEAD OF 3.

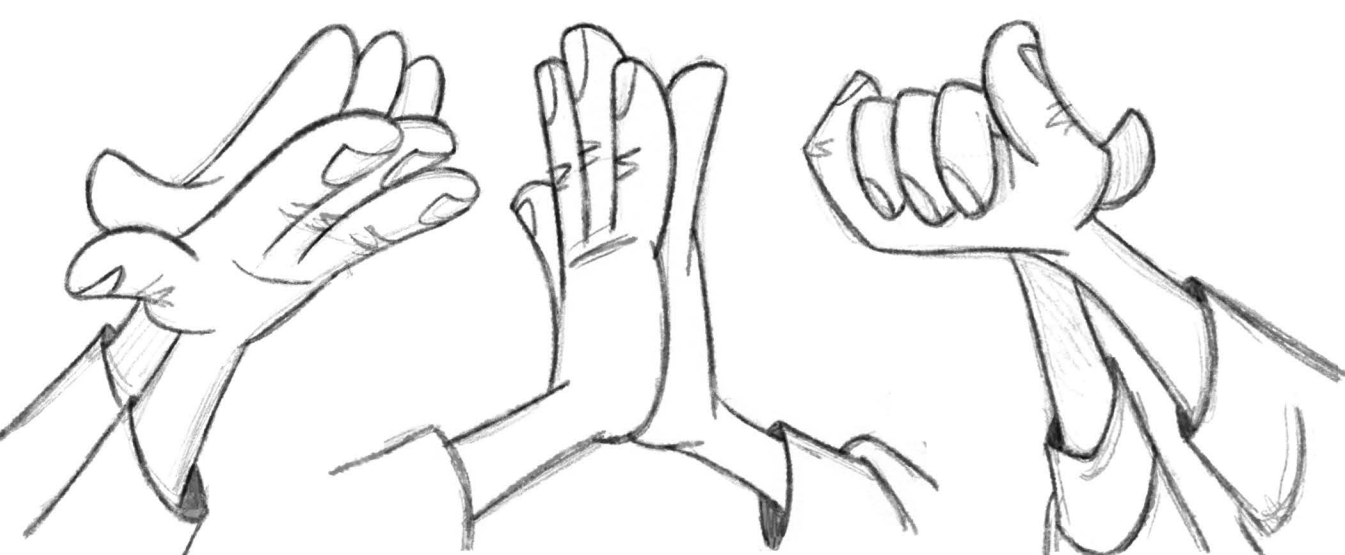
ON MORE SYTLIZED HANDS, AN ANGULAR BUMP CAN BE ADDED.



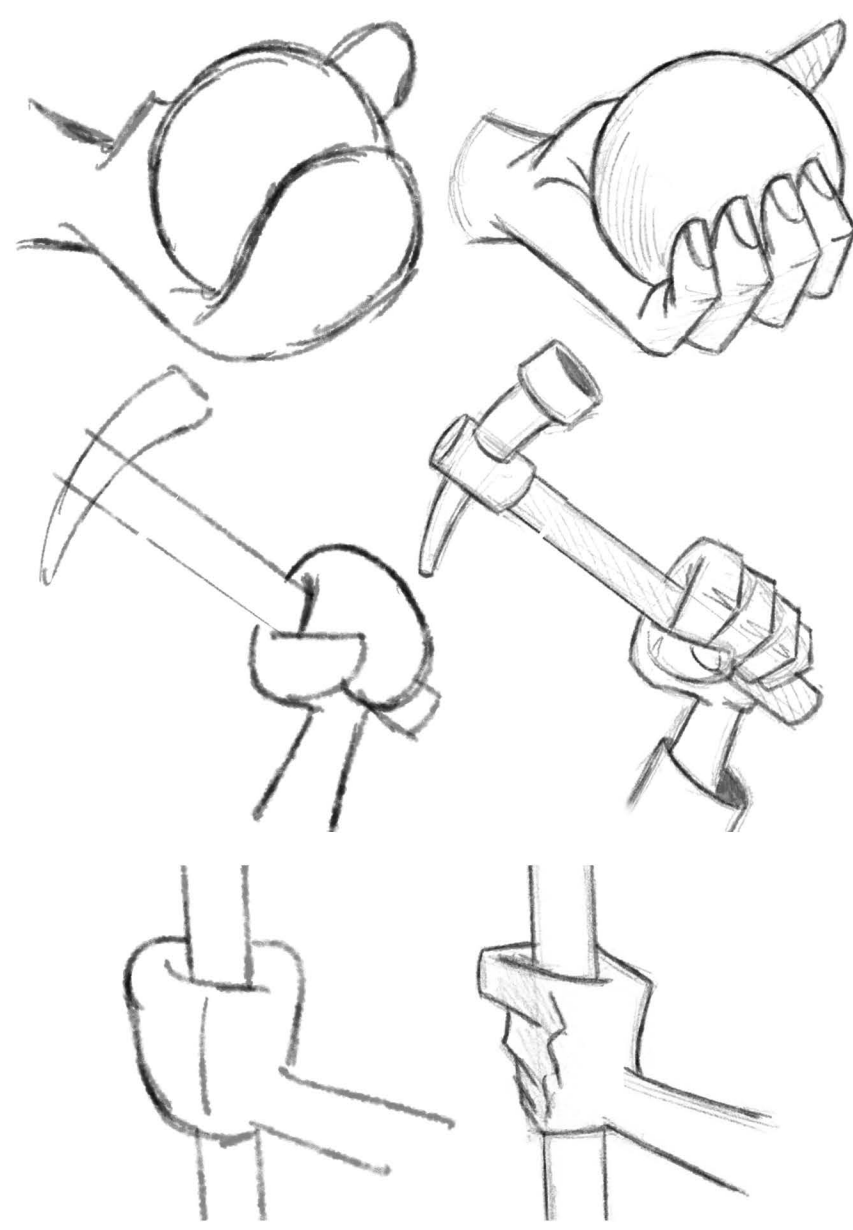
WHEN THINGS TOUCH.



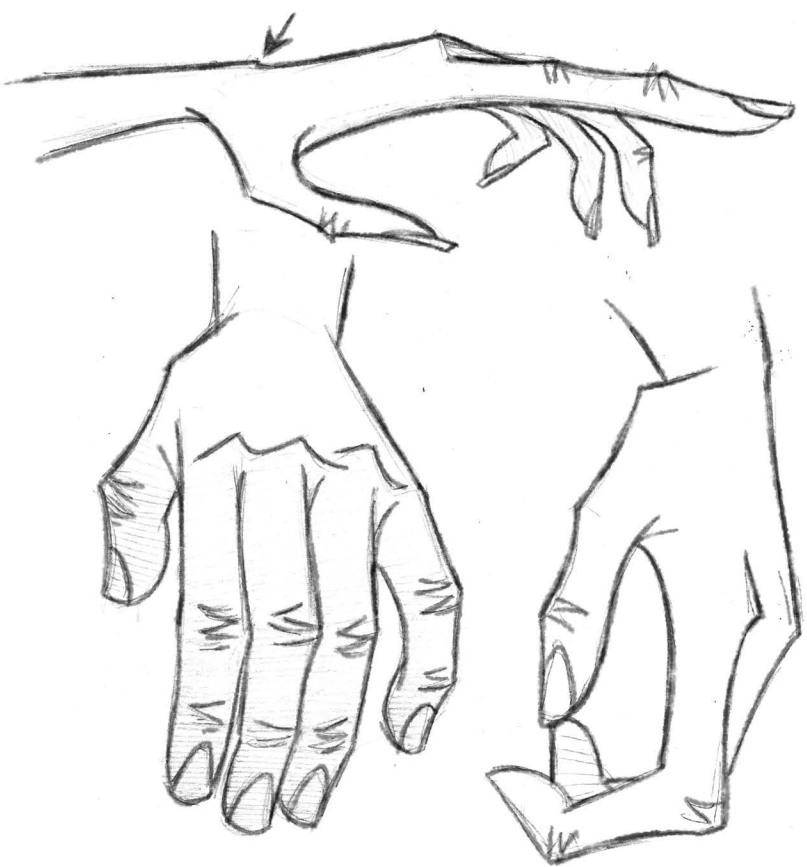
KEEP POINTS OF CONTACT AS SIMPLE AS POSSIBLE.



THINK OF THE HAND AS A MITTEN. CURVING AROUND THE OBJECT.



WRIST BUMP



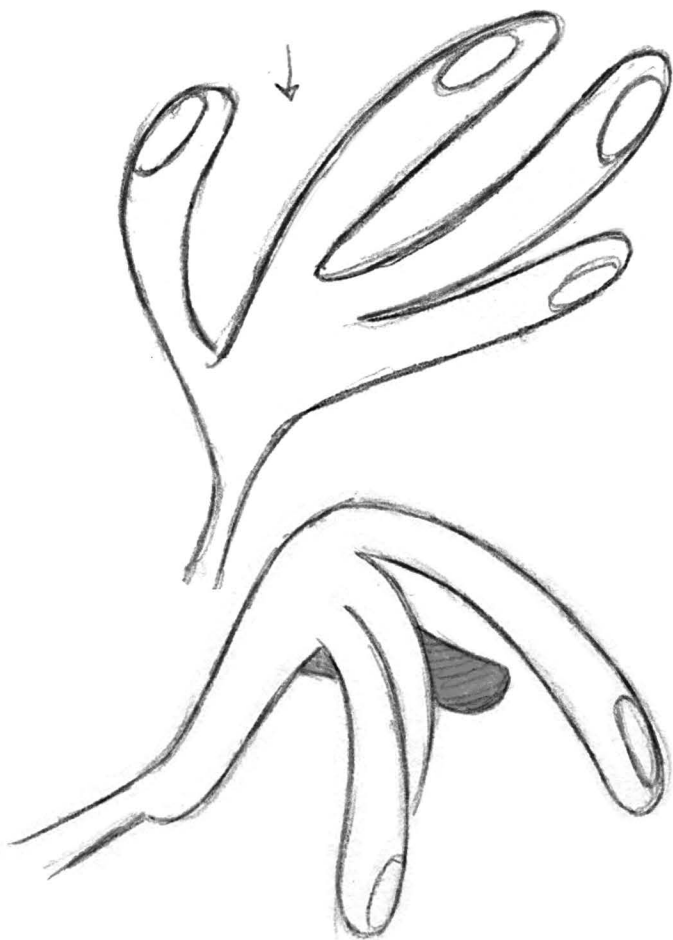
WHEN PARTS TOUCH, MAKE ONE LINE DEFINE TWO AREAS. THIS PREVENTS CLUTTER.



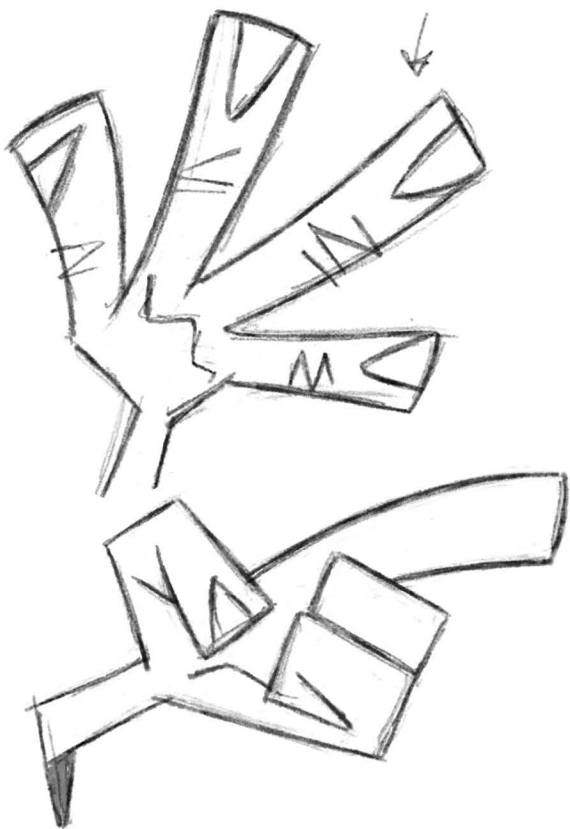
O3_12: HANDS (STYLES)



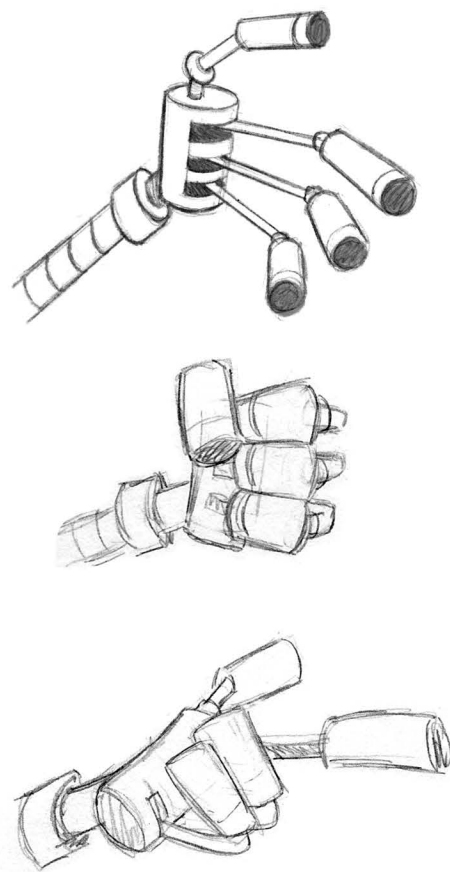
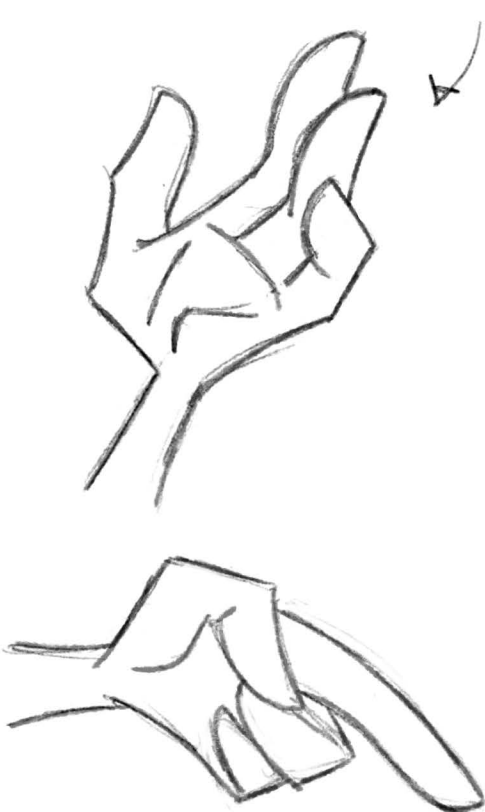
ROUND/
BALLOONY



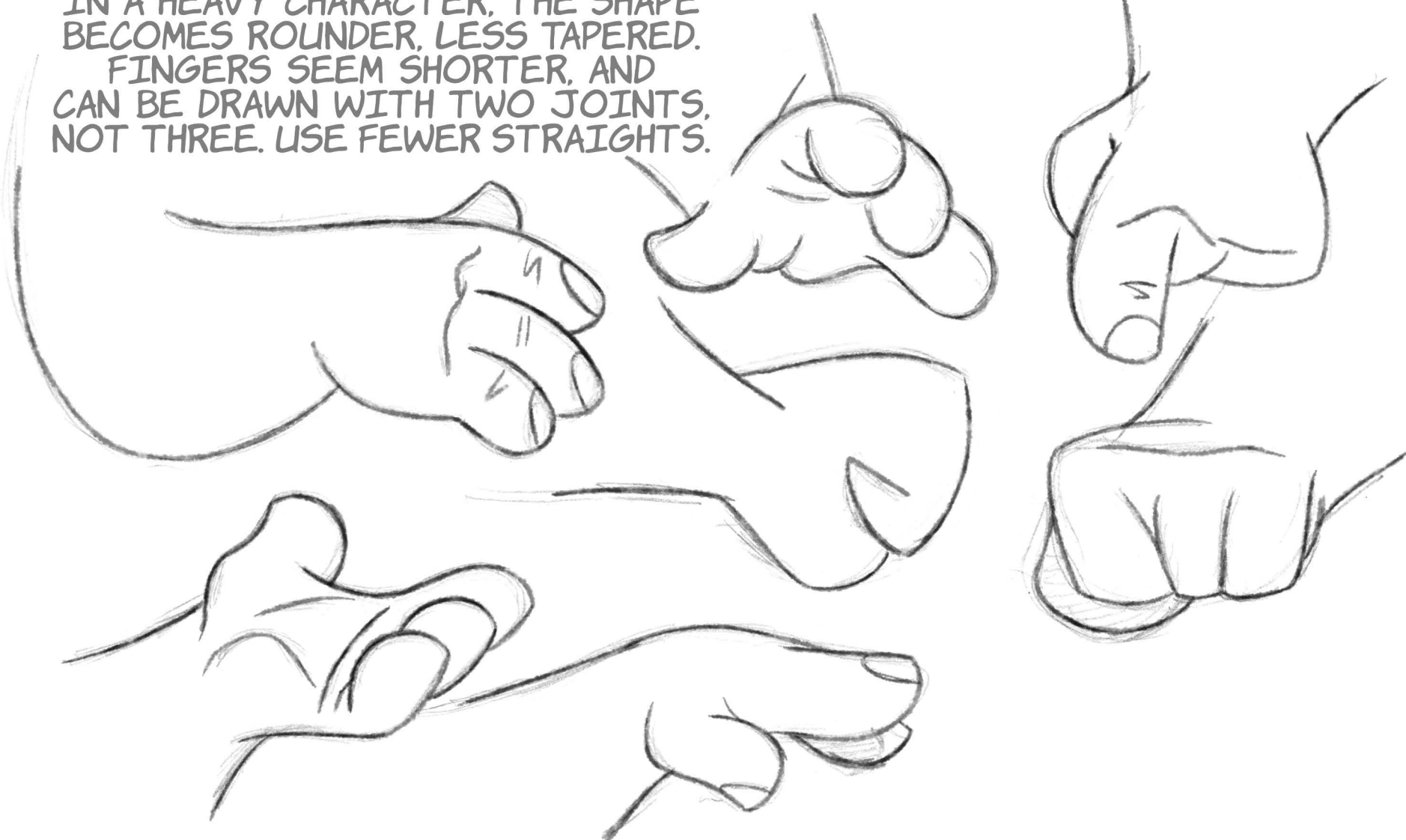
SQUARED/
STRAIGHT



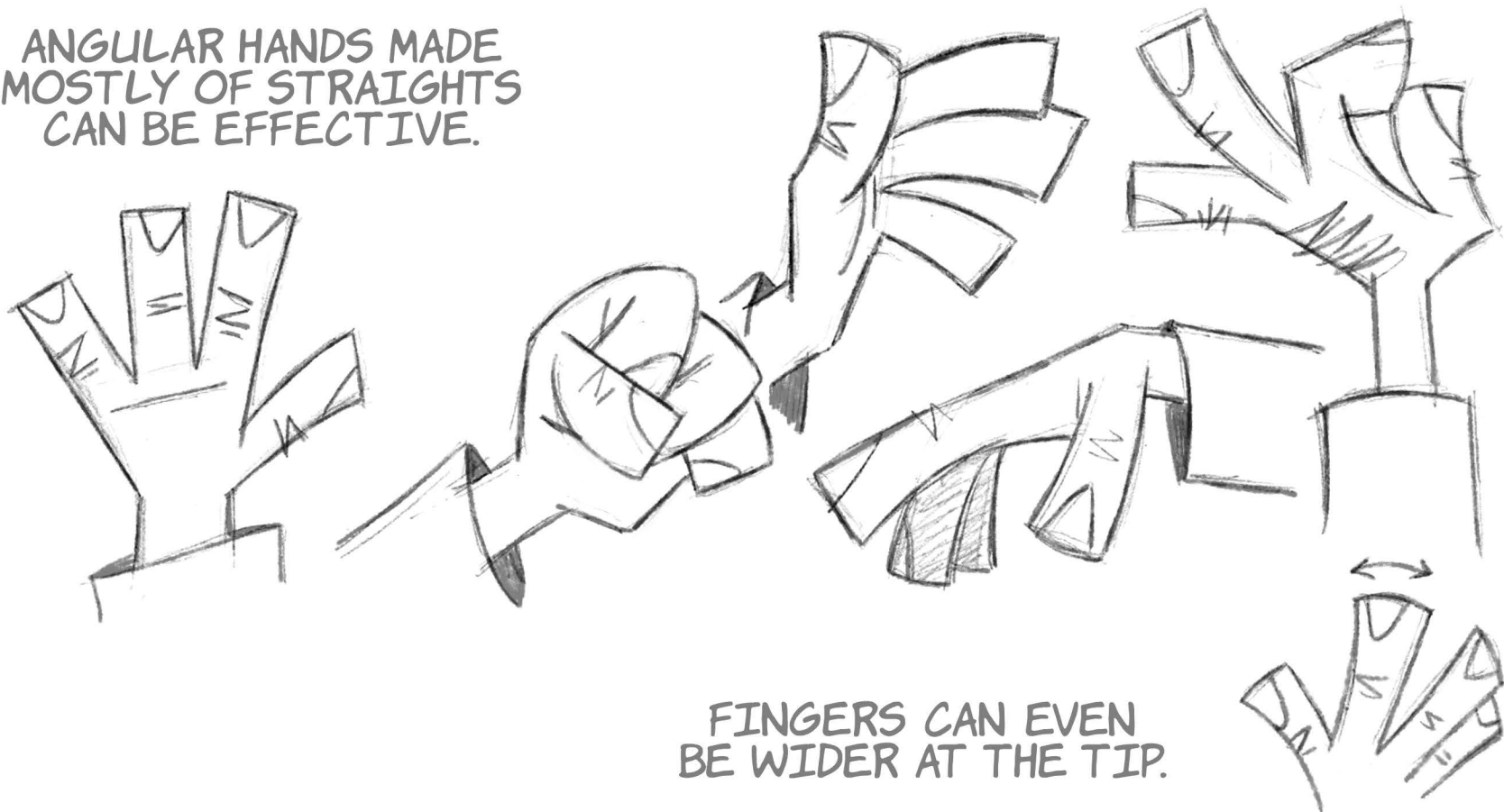
COMBINATION OF
CURVE/STRAIGHT



IN A HEAVY CHARACTER, THE SHAPE BECOMES ROUNDER, LESS TAPERED. FINGERS SEEM SHORTER, AND CAN BE DRAWN WITH TWO JOINTS, NOT THREE. USE FEWER STRAIGHTS.



ANGULAR HANDS MADE MOSTLY OF STRAIGHTS CAN BE EFFECTIVE.



FINGERS CAN EVEN BE WIDER AT THE TIP.

FORELIMBS OF ANIMALS AND OTHER CREATURES ARE REGULARLY USED AS HANDS.



O3_13: FEET

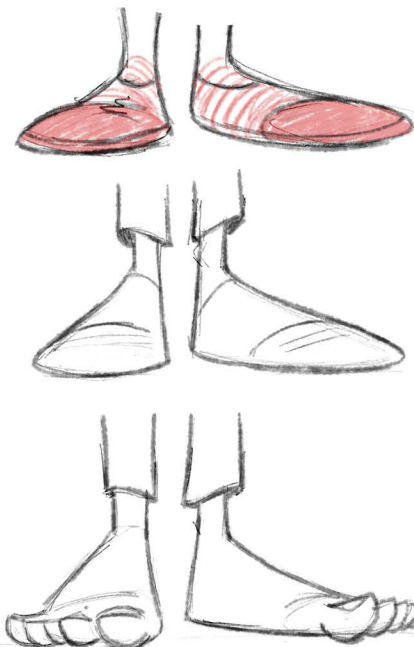


THINK OF THE FOOT AS AN ELONGATED PYRAMID.

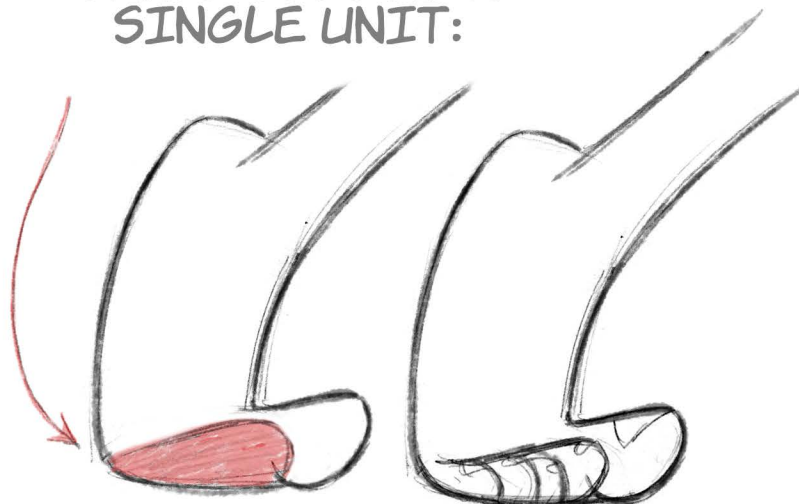


BUILD THE DESIGN AROUND THIS SHAPE.

REMEMBER: VOLUMES, NOT LINES!



DRAW THE BIG TOE FIRST; THINK OF THE FOUR SMALL TOES AS A SINGLE UNIT:



FINALLY, ADD THE 4 SMALLER TOES.

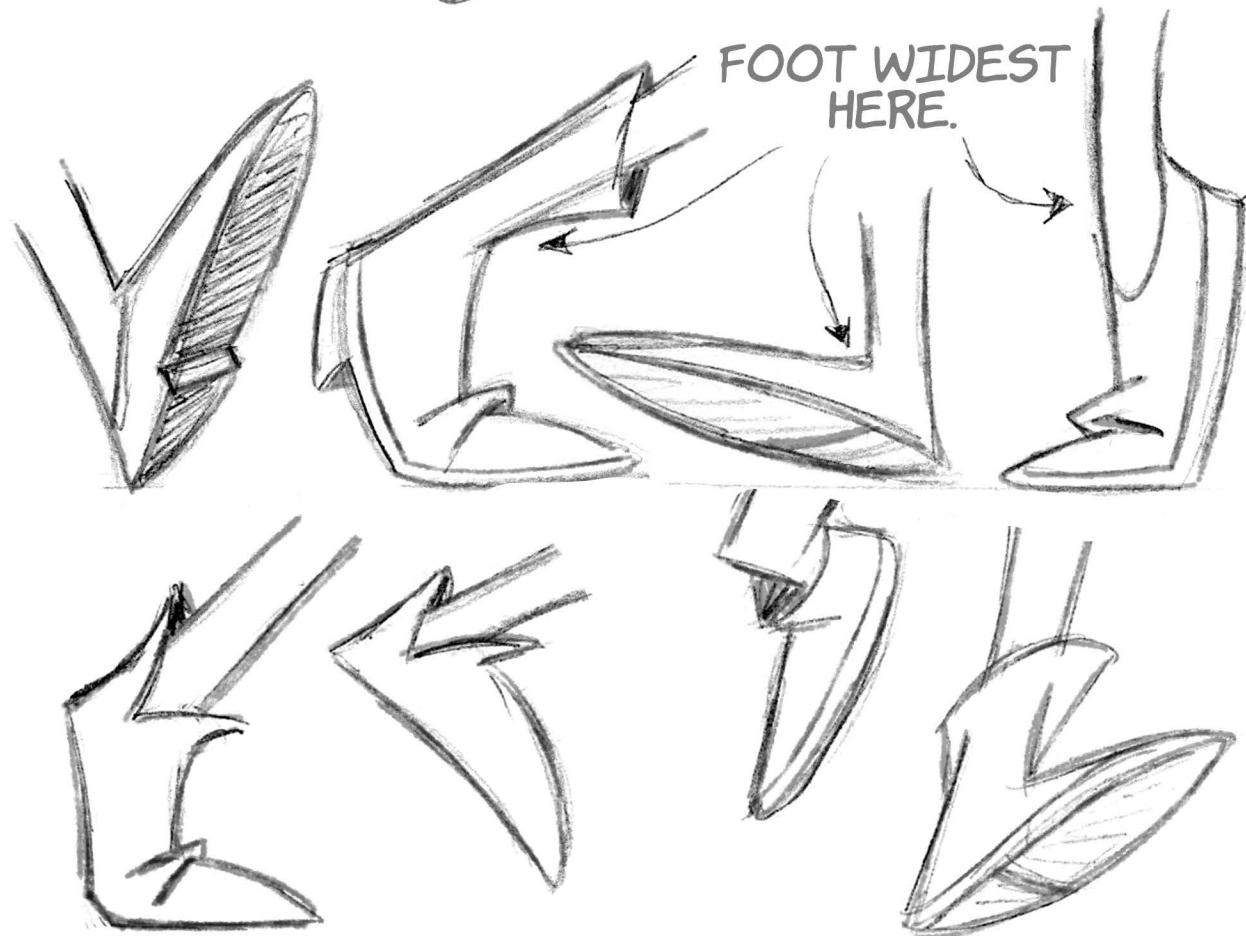
FEET ARE TRICKY. IF YOU GET STUCK ON A DESIGN...

GO BACK TO THIS BASIC PYRAMID FORM.

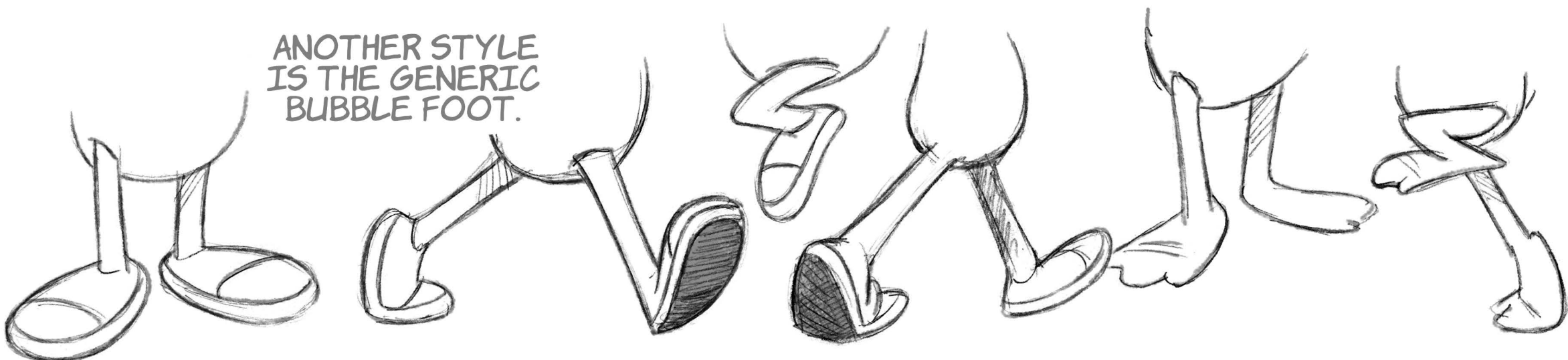


ADD BULGE IF NEEDED.

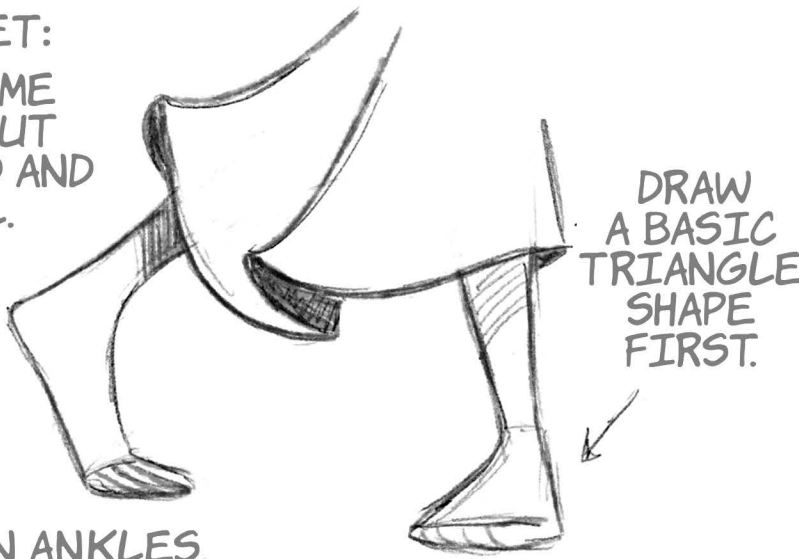
FOOT WIDEST HERE.



ANOTHER STYLE IS THE GENERIC BUBBLE FOOT.



FEMALE FEET: USE THE SAME APPROACH, BUT MORE CURVED AND GRACEFUL.



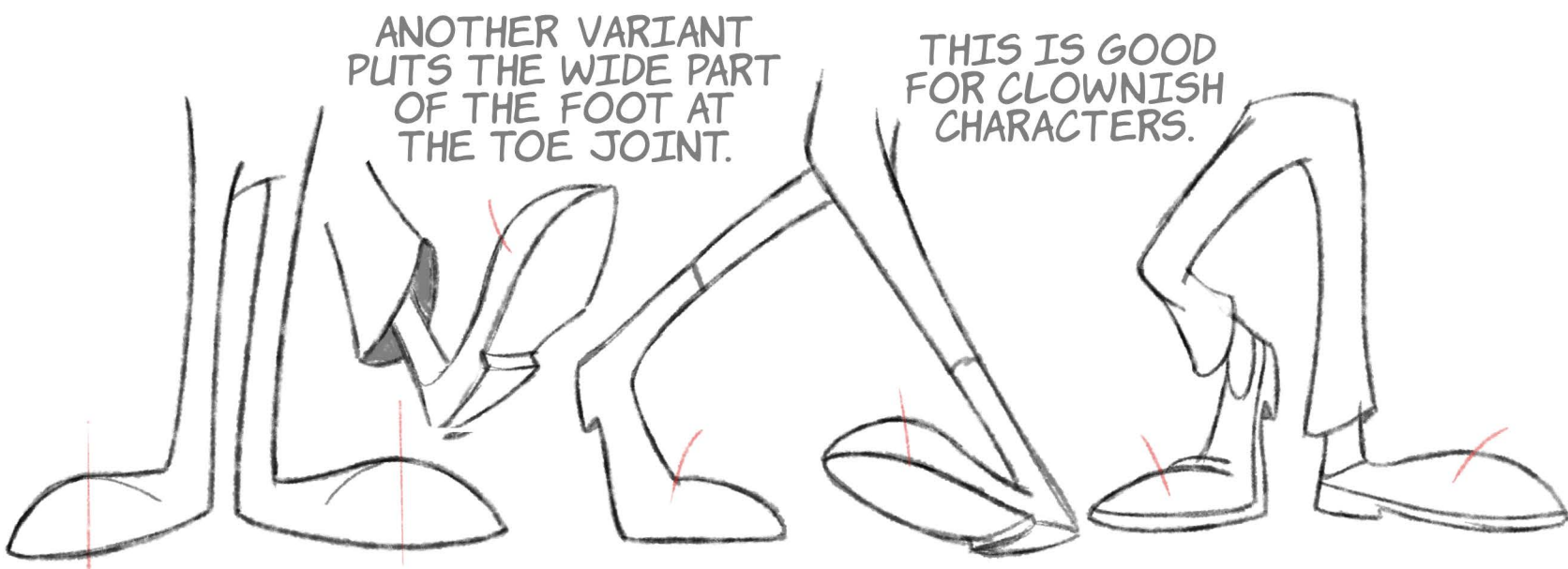
THIN ANKLES.

DRAW A BASIC TRIANGLE SHAPE FIRST.

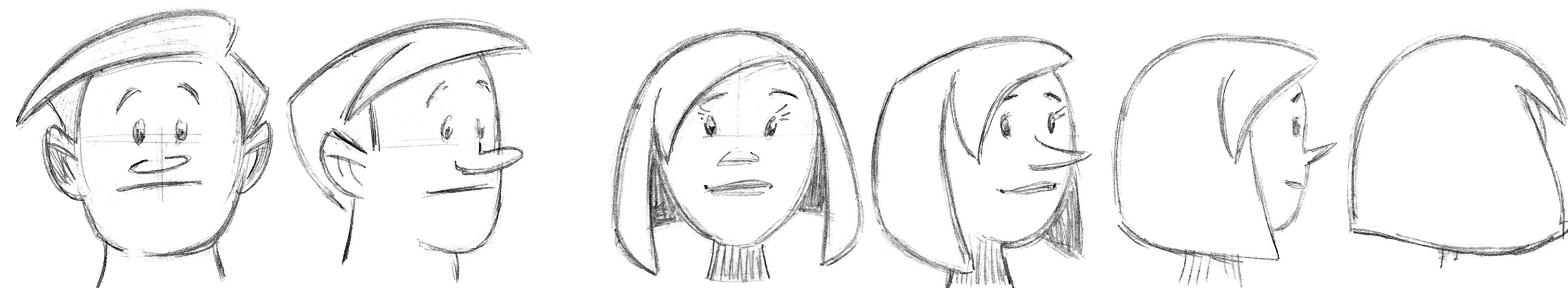
CERTAIN ANGLES ALLOW YOU TO SUGGEST OR CHEAT A SHAPE.

YOU CAN BE REALISTIC/ NATURALISTIC IF NEEDED.

BUT MANY STYLES ARE POSSIBLE; THESE HIGH HEELS ARE A GOOD EXAGGERATION.

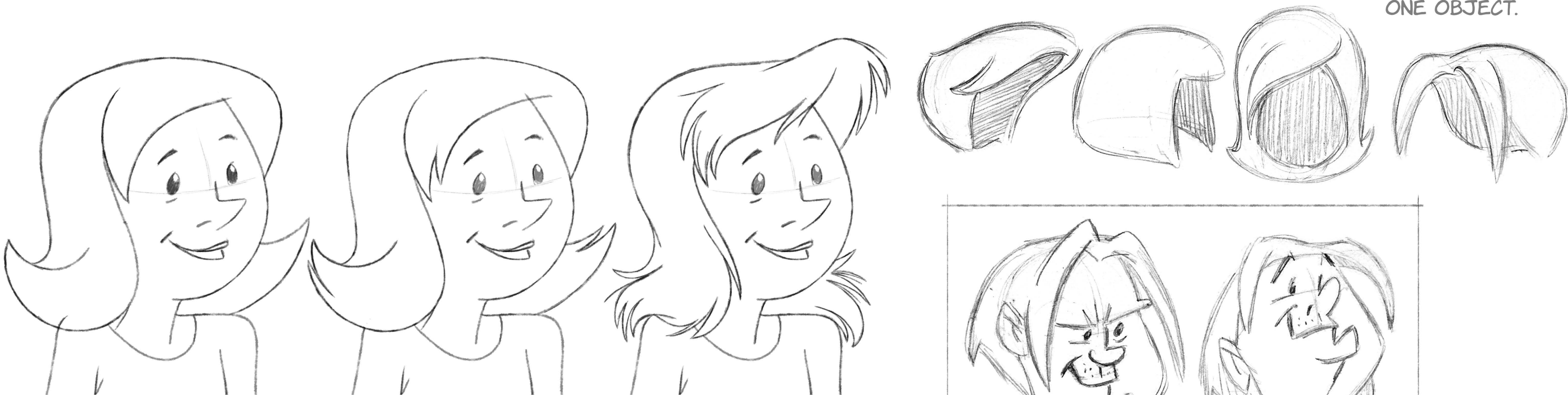


O3_14: HAIR & BEARDS



START SIMPLY. WORK WITH BASIC FORMS. IMAGINE THE HAIR AS A SINGLE MASS. DON'T THINK OF IT AS INDIVIDUAL STRANDS.

THINK OF THE HAIR AS ONE OBJECT.

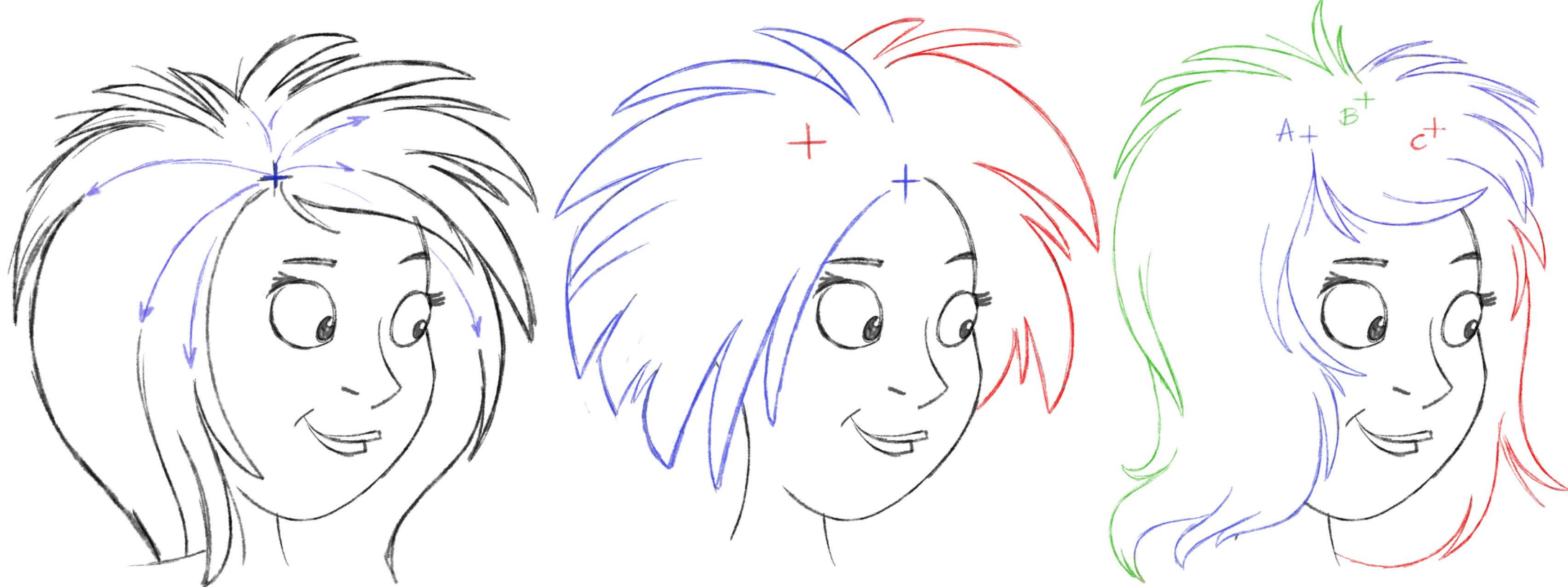


WITH A FEW SUBDIVISIONS, THE GRAPHIC/STYLIZED HAIR IS TRANSFORMED INTO A MORE VARIED STYLE.

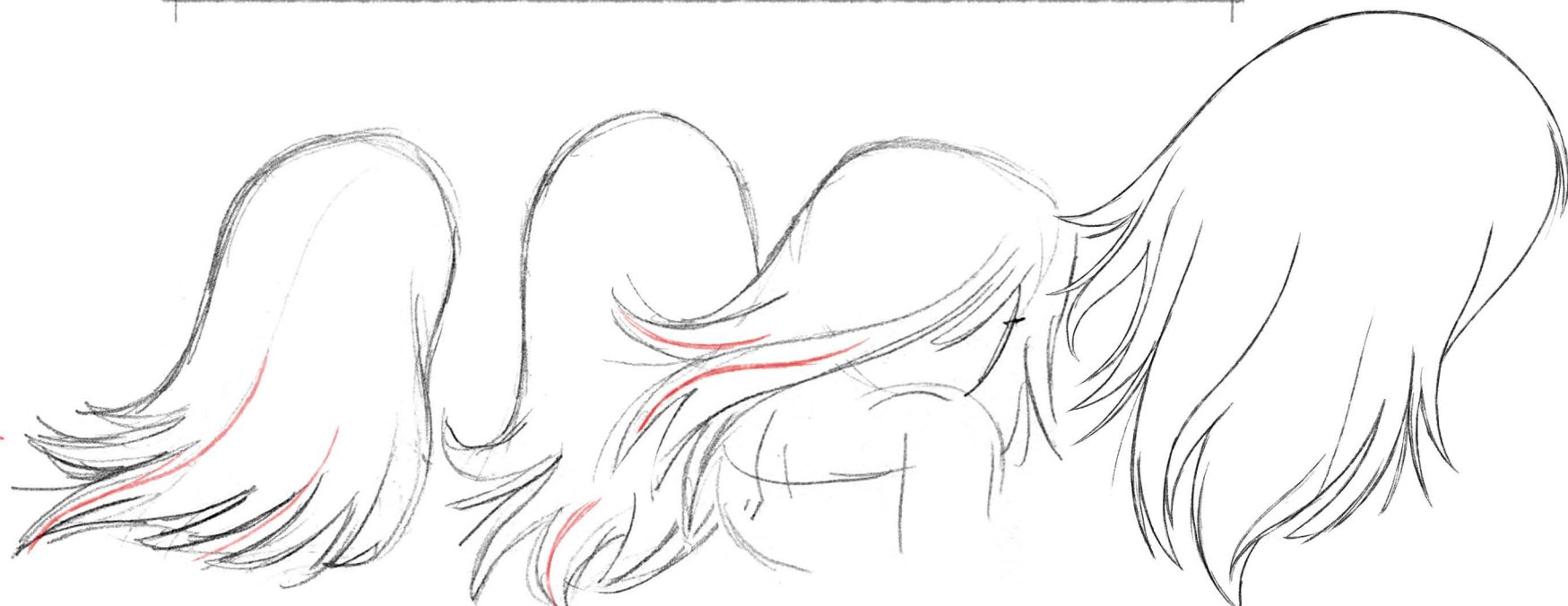
CONTINUE THE PROCESS TO ACHIEVE A RICHER STYLE.



HAIR SHOULD LOOK GOOD IN MORE THAN ONE ANGLE.



HAIR STROKES ORIGINATE FROM POINTS OF ORIGIN.



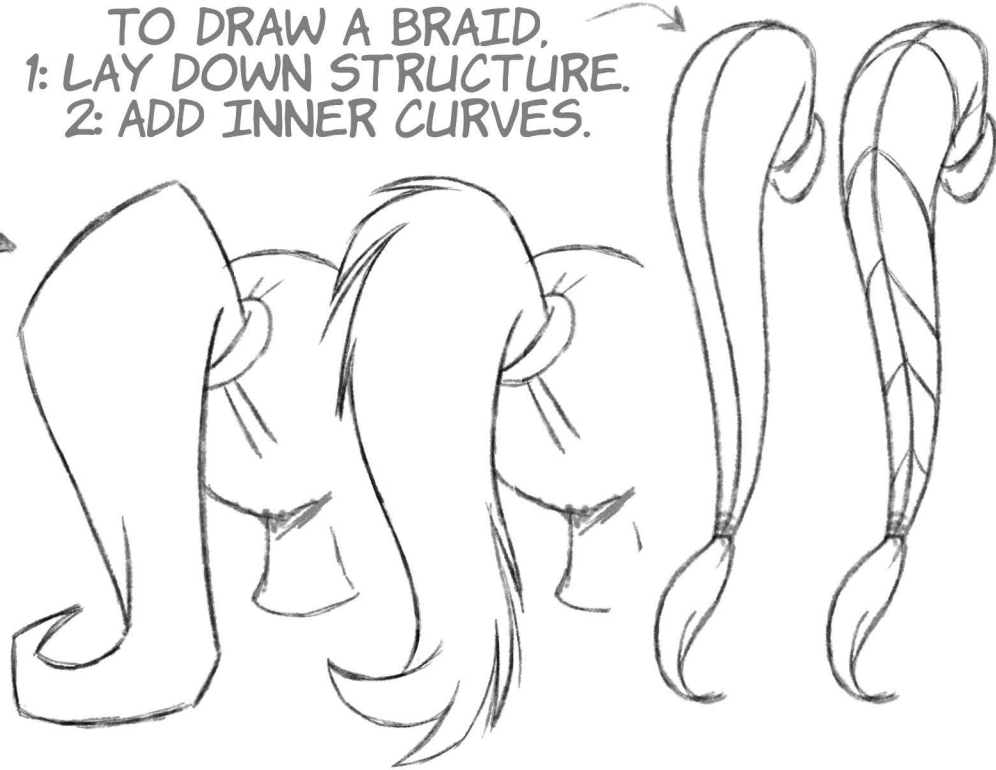
BEAUTIFUL HAIR IS BUILT AROUND 'S' AND 'C' SHAPED LINES.

O3_14: HAIR & BEARDS

PONYTAILS RADIATE FROM A KNOT (A POINT OF ORIGIN).



TO DRAW A BRAID, 1: LAY DOWN STRUCTURE. 2: ADD INNER CURVES.



SAME PRINCIPLE APPLIES TO A TOPKNOT.



FIRST, BLOCK IN THE GENERAL OUTLINE.



THEN, ADD IN THE SECONDARY SHAPES AND INNER DETAIL.



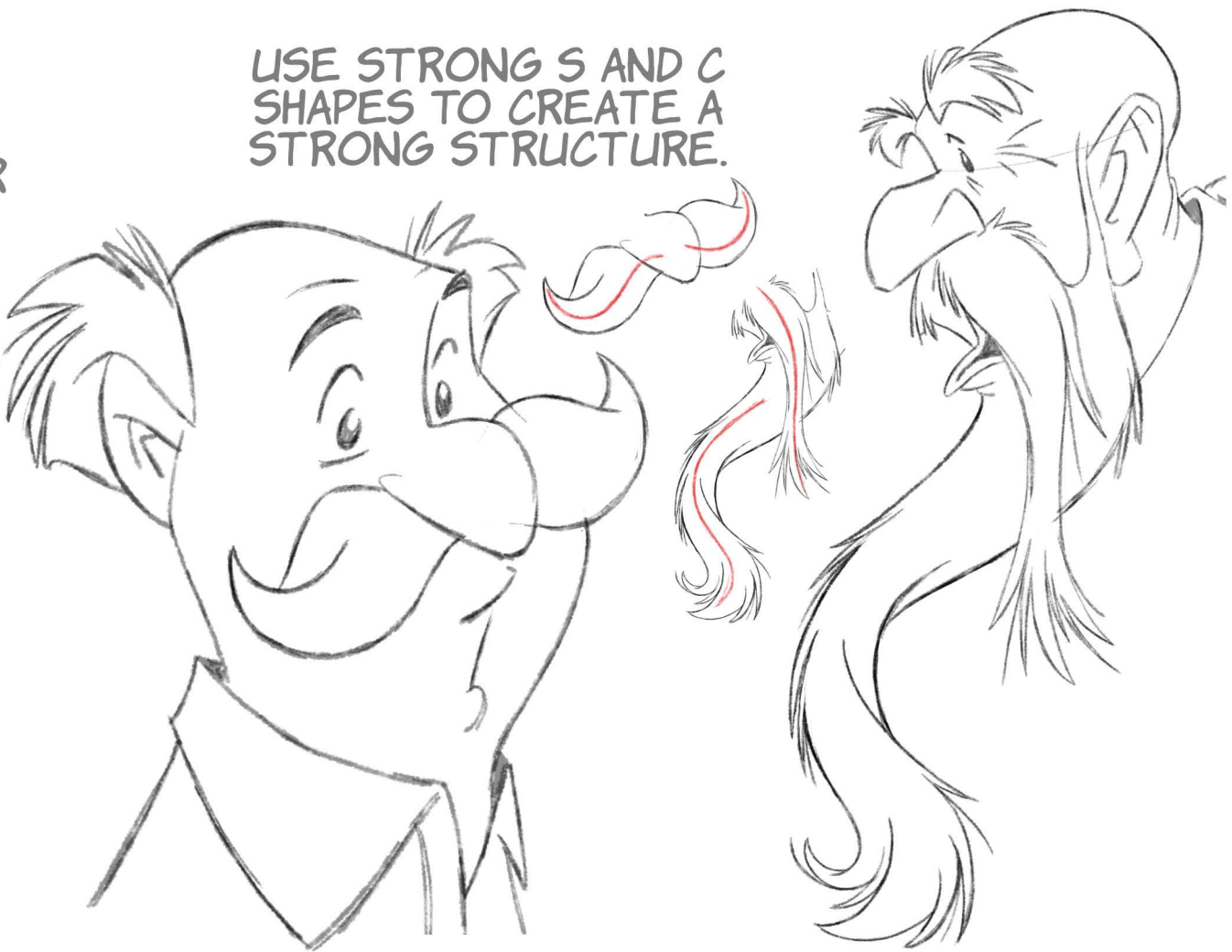
THERE IS NO END TO THE POSSIBLE VARIETY OF HAIR STYLES (AND GRAPHIC STYLES TO REPRESENT THEM). CURVED, ANGULAR, 2D OR CLASSIC/TRADITIONAL.

DRAW THE MAIN MASS FIRST.

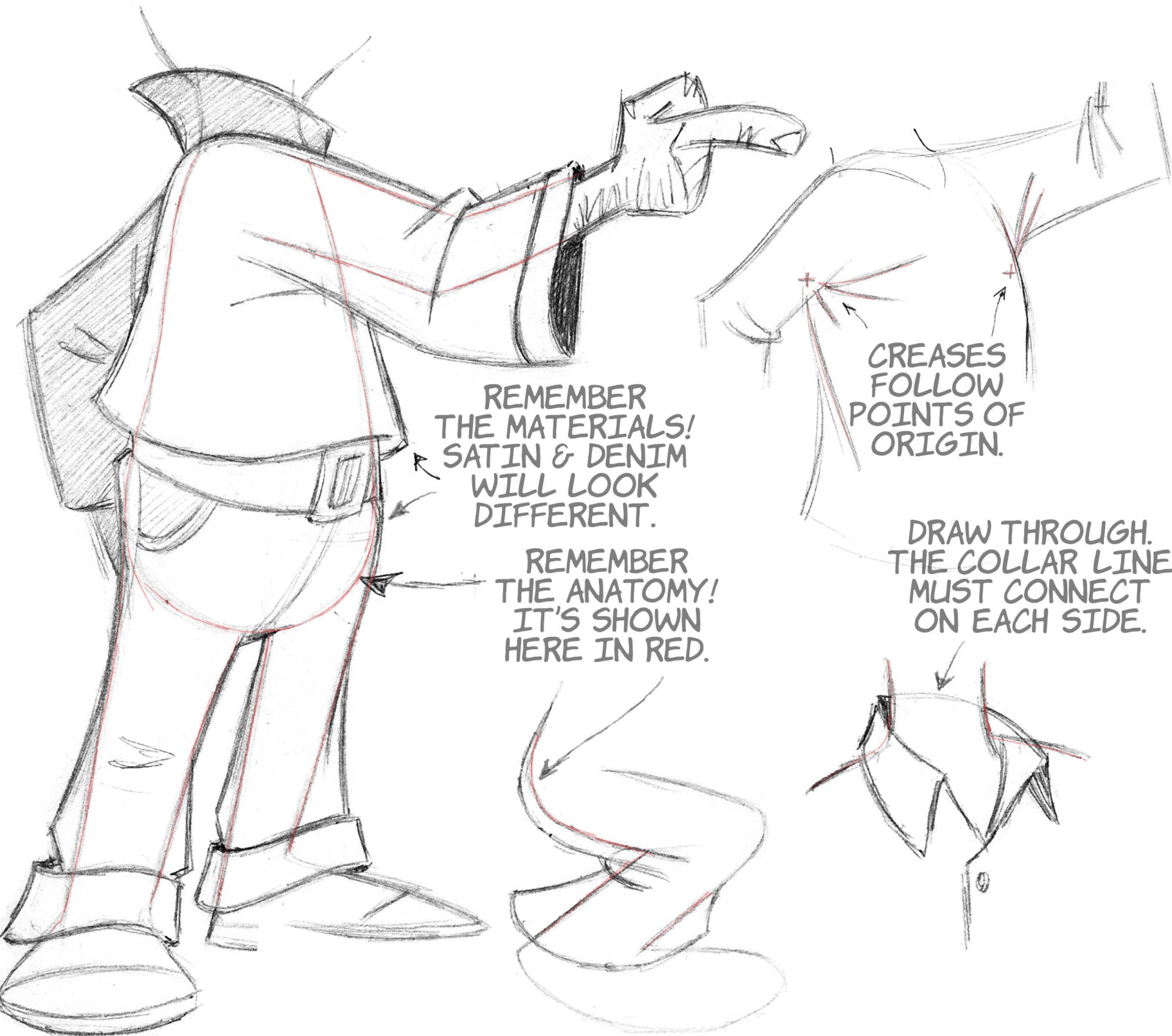


ADD SMALLER AREAS TO BREAK IT APART AND LOOSEN IT.

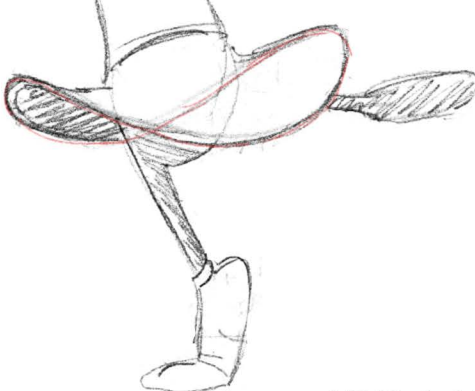
USE STRONG S AND C SHAPES TO CREATE A STRONG STRUCTURE.



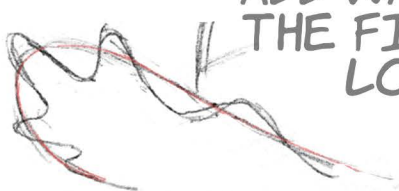
03_15: CLOTHING



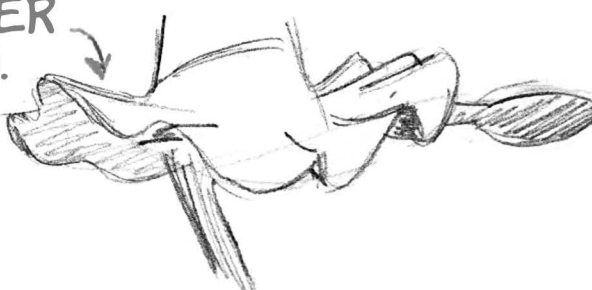
BUILD A SIMPLE SKIRT AROUND A FIGURE 8 LOOP (SHOWN IN RED).



ADD WAVES TO THE FIGURE 8 LOOP.



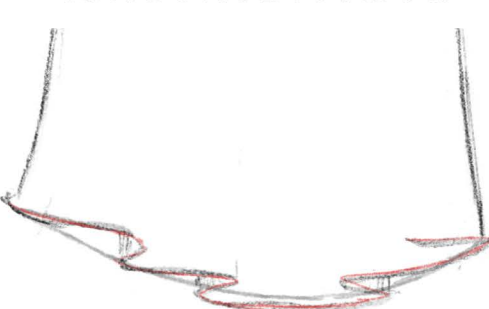
ADD INNER LINES.



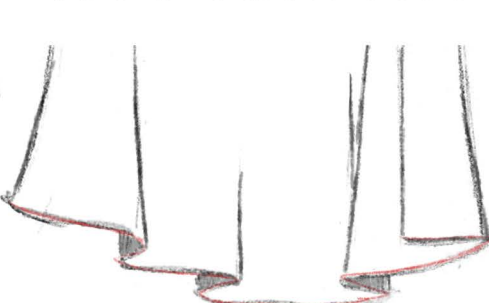
HANGING FABRIC: DRAW OUTLINE.



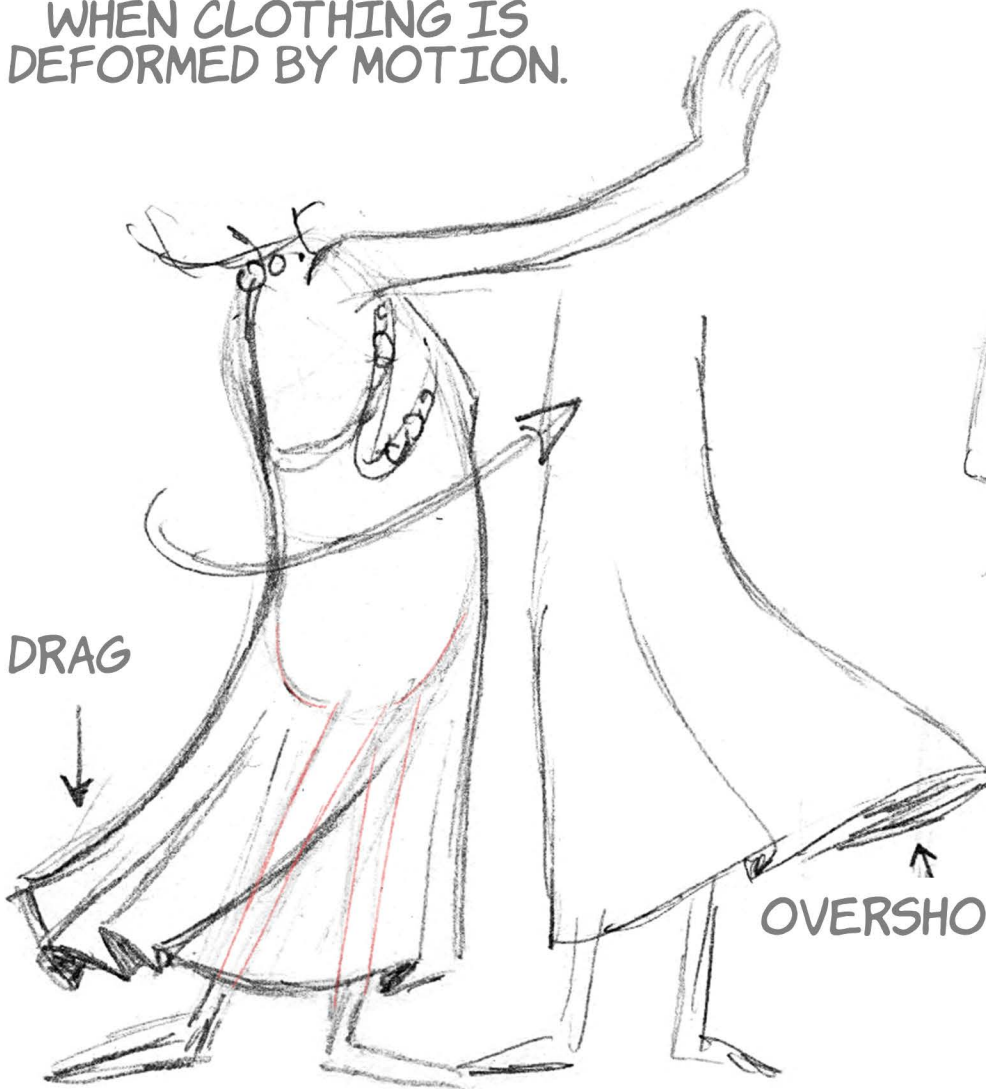
DRAW CURVE (SHOWN IN RED).



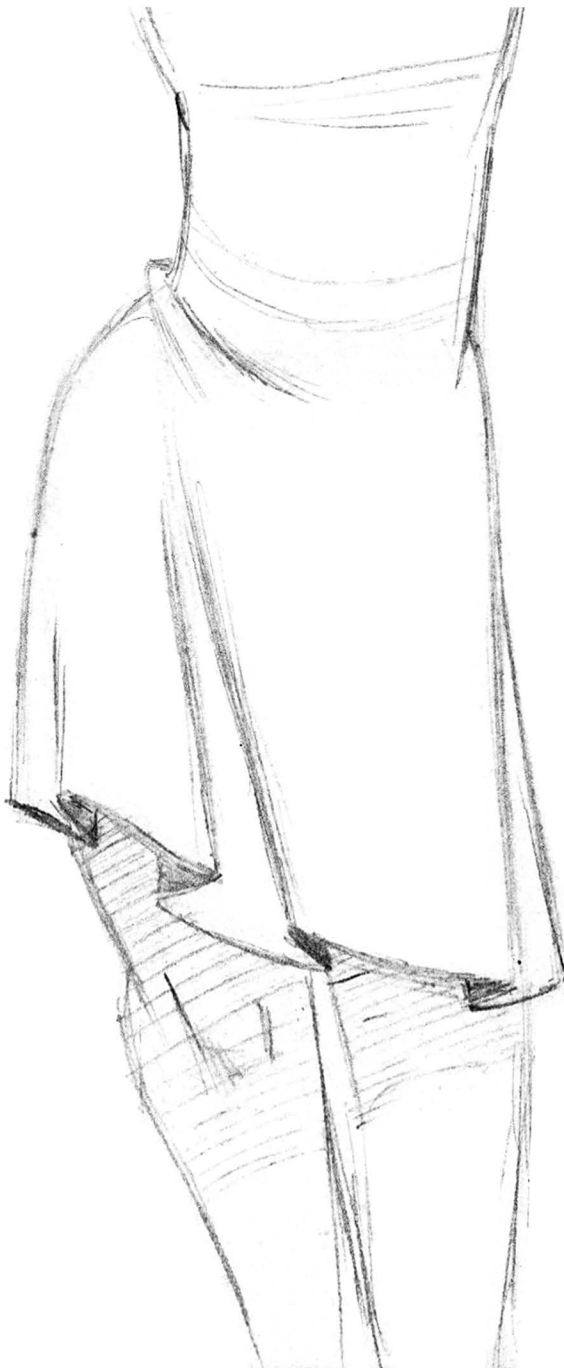
ADD INNER FORM.



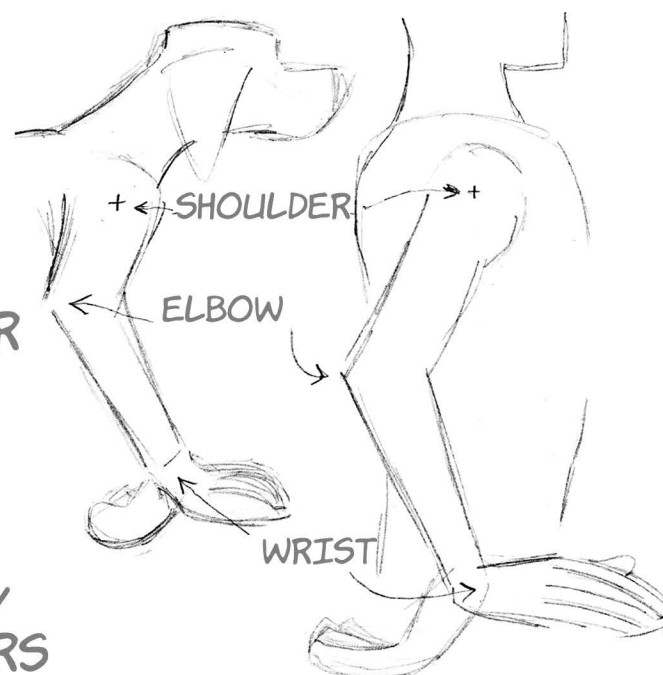
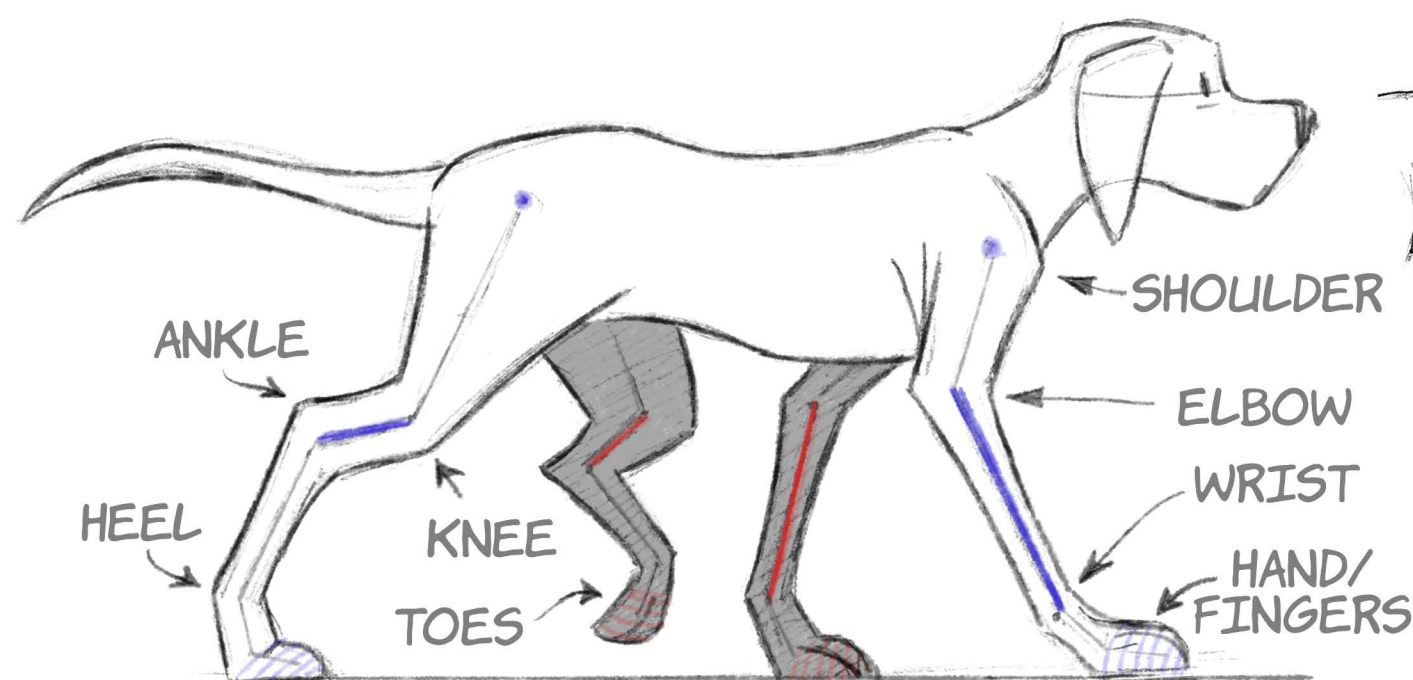
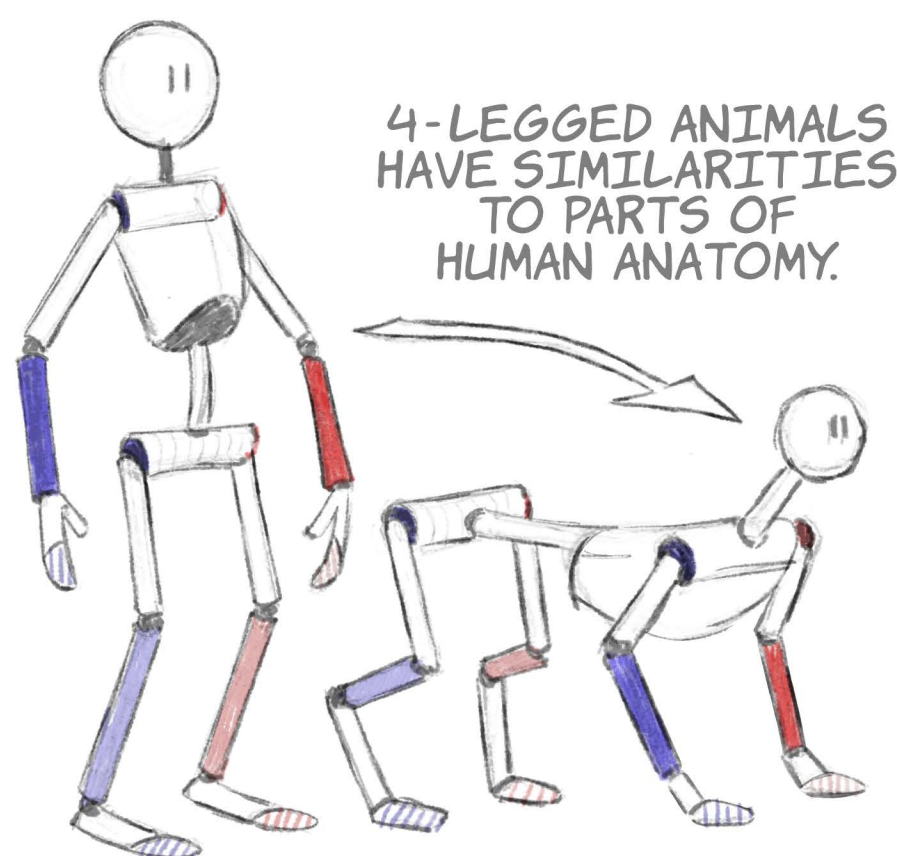
REMEMBER THESE METHODS WHEN CLOTHING IS DEFORMED BY MOTION.



REMEMBER THE FORM (SHOWN IN RED) BENEATH THE CLOTHING!



O3_16: ANIMALS AND CREATURES



LEFT: THIS IS REALLY A MAN IN A SUIT. THERE ISN'T MUCH OF A DOG ANATOMY HERE.

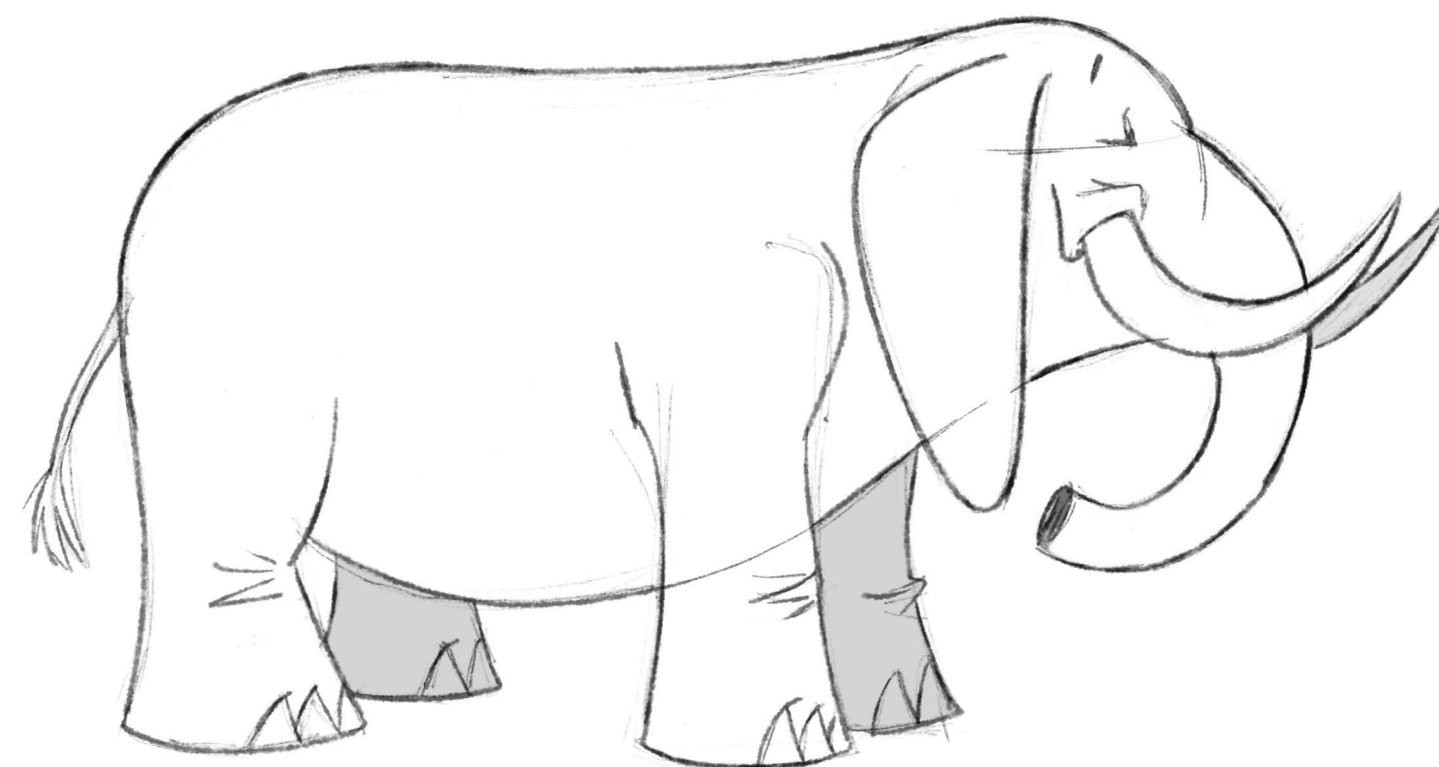
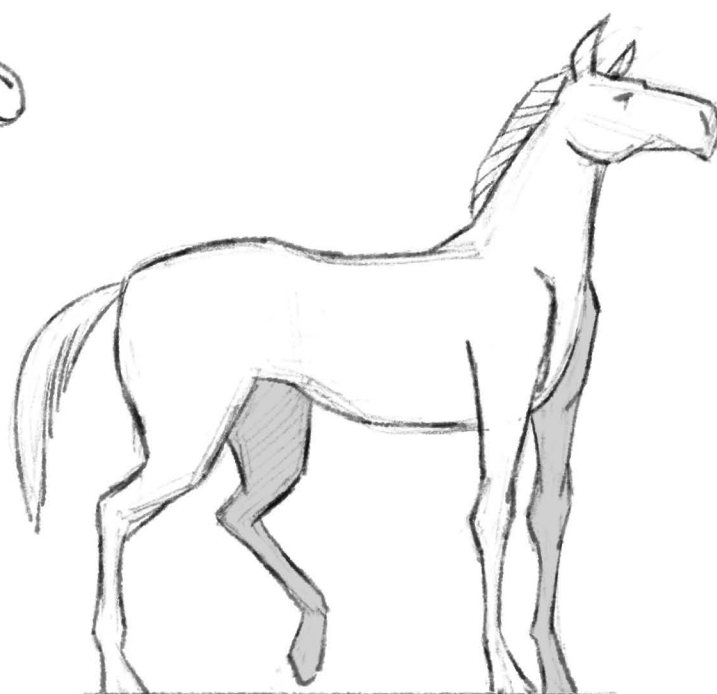
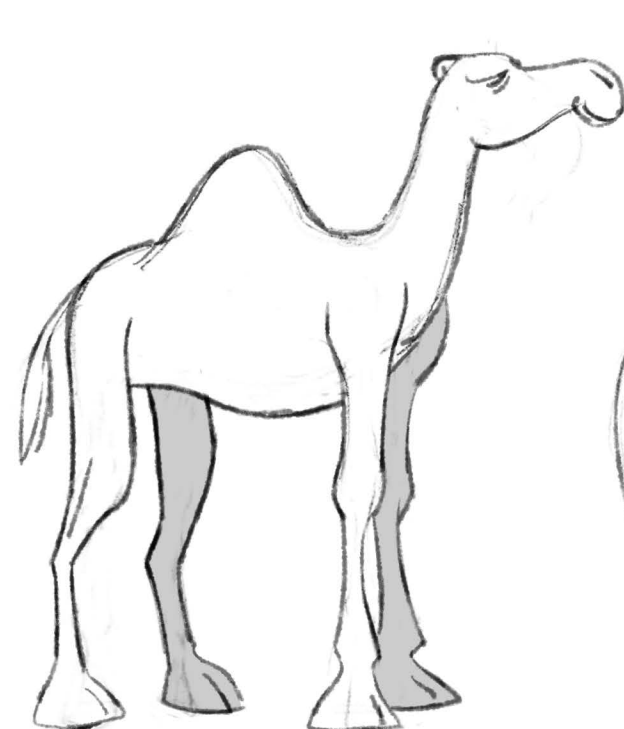
RIGHT: THOUGH STANDING, THIS IS STRUCTURED LIKE A REAL DOG.



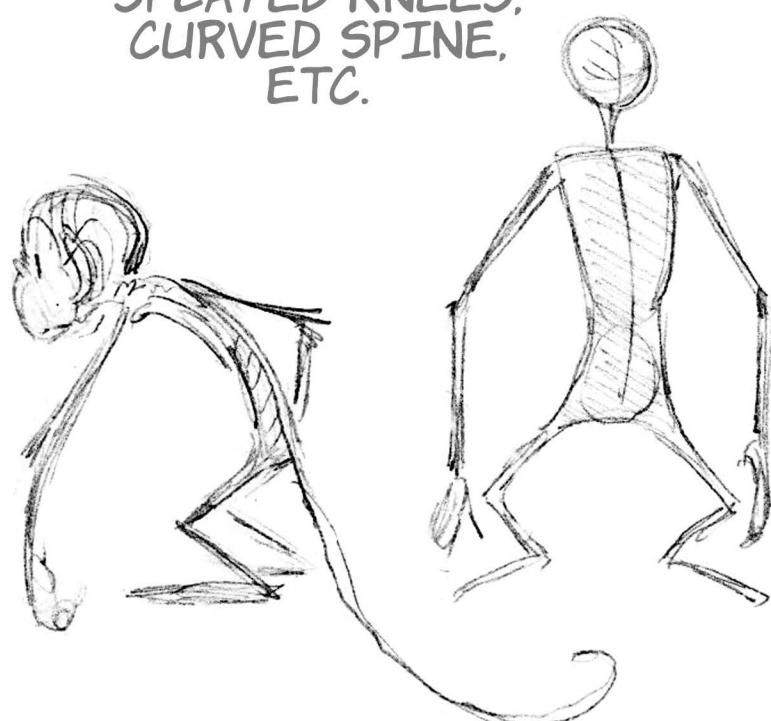
THOUGH THIS PRINCIPLE APPLIES TO MANY TYPES OF ANIMALS, INDIVIDUAL SPECIES VARY IN HOW THE PARTS ARE DISTRIBUTED.

YOU SHOULD NOT APPLY THE PROPORTIONS OF A DOG TO A CAMEL, ELEPHANT OR HORSE, FOR EXAMPLE.

RESEARCH THE SPECIES YOU ARE DRAWING, AND FIND OUT ITS INDIVIDUAL SKELETAL STRUCTURE.



MONKEYS & OTHER PRIMATES ARE MOST SIMILAR TO HUMANS, BUT WITH SHORTER LEGS PROPORTIONALLY; SPLAYED KNEES, CURVED SPINE, ETC.



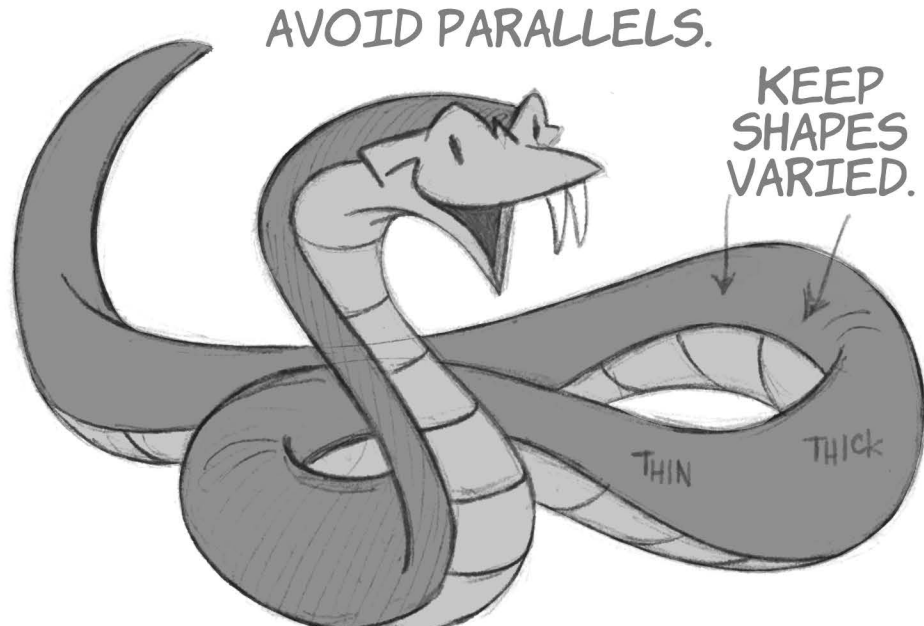
AND IT'S CRUCIAL TO REMEMBER THAT YOU CAN MOVE FROM CARTOONY TO REALISTIC AS NEEDED.




O3_16: ANIMALS AND CREATURES

SNAKES, BIRDS AND AQUATICS


AVOID PARALLELS.




KEEP SHAPES VARIED.




USE TAILS AS HANDS.




START WITH THE SPINE/LINE OF ACTION.



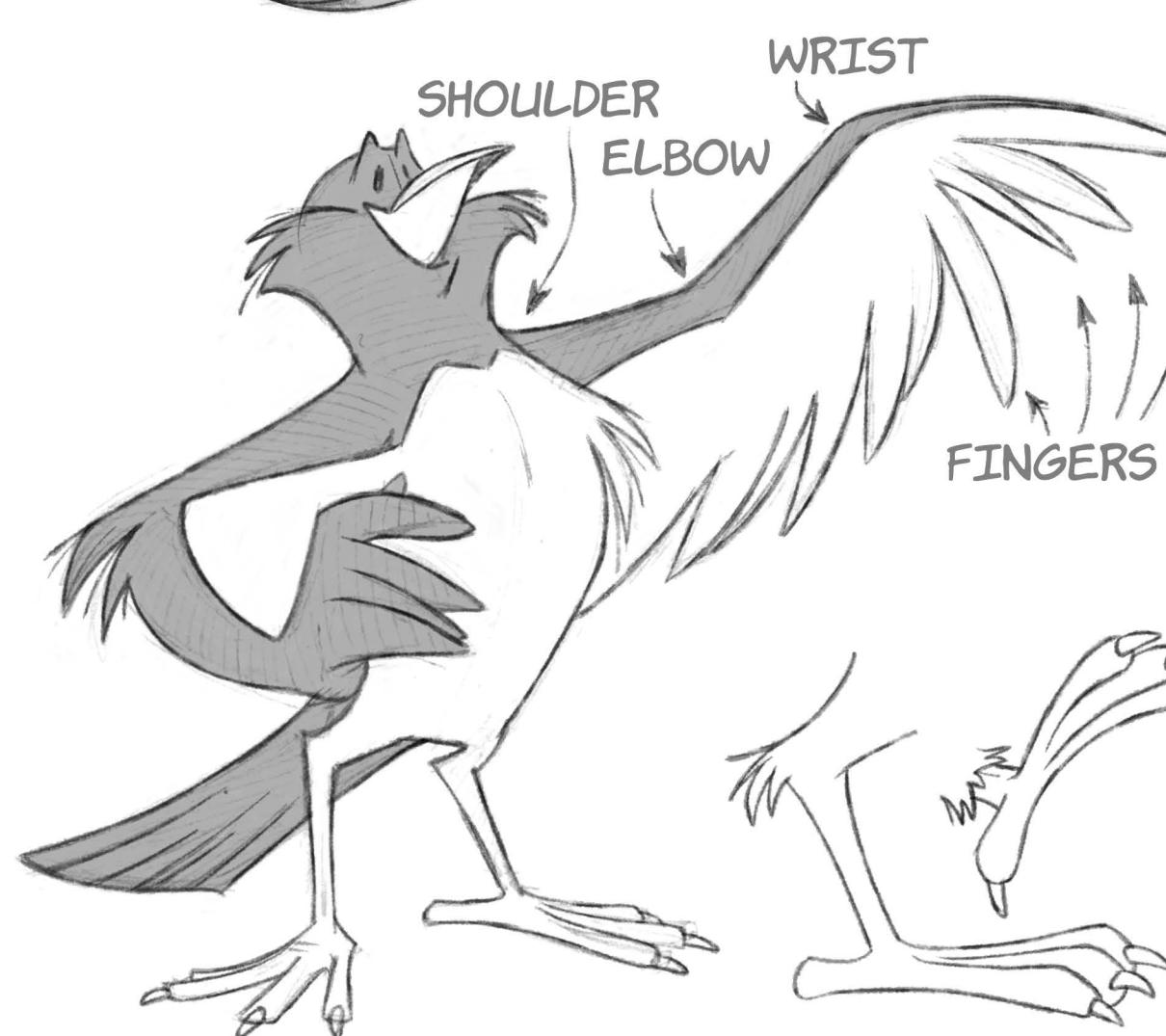
ADD FLESH & FACE (USING THICK/THIN AREAS).




DRAW THROUGH KNOTTY SHAPES.




SHOULDER ELBOW WRIST

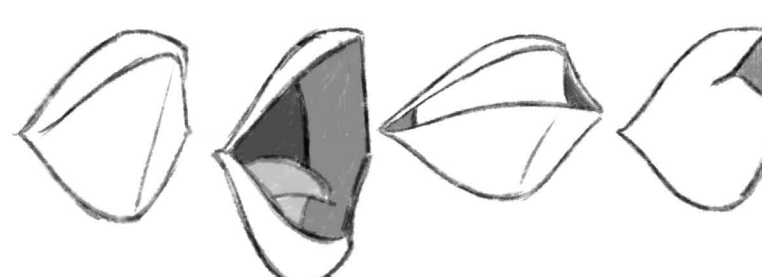


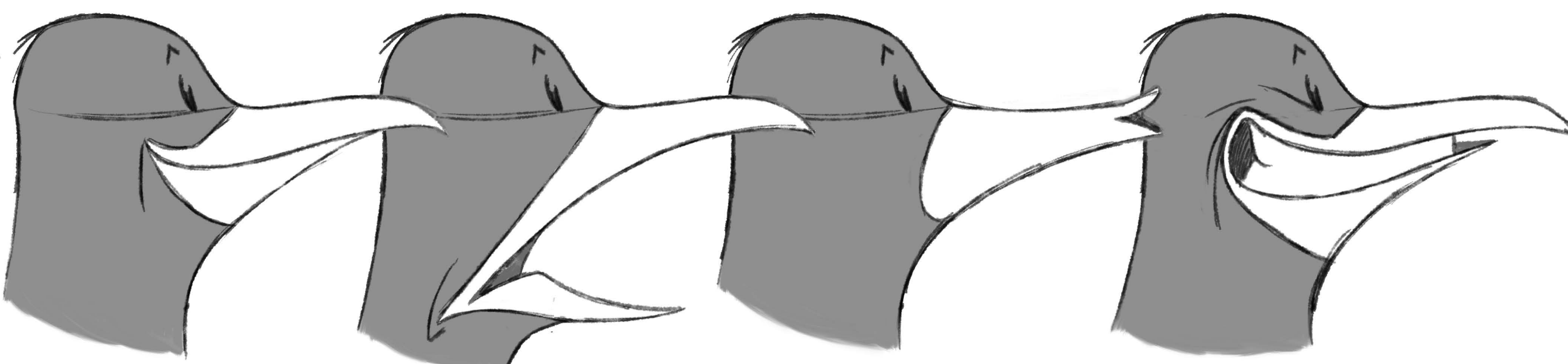
FINGERS



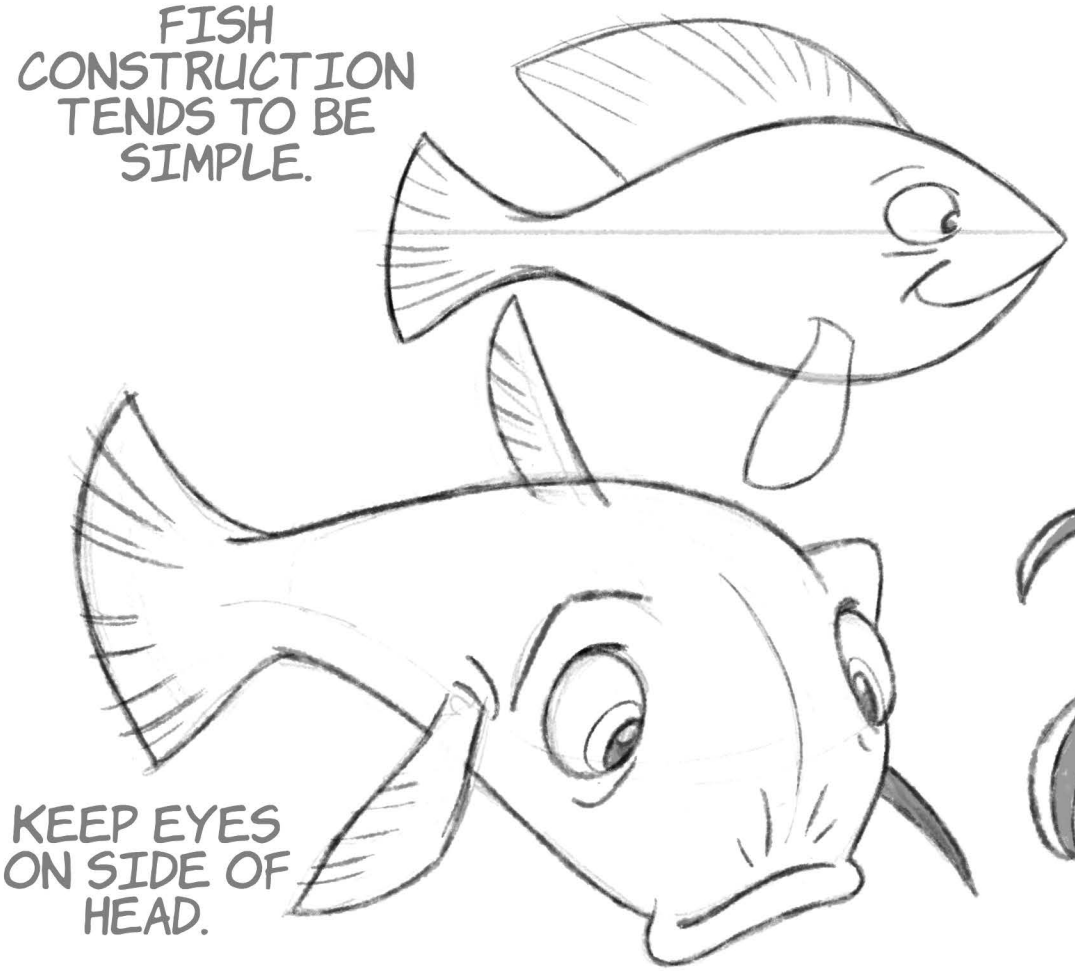


LIPSHOT OF BEAKS.

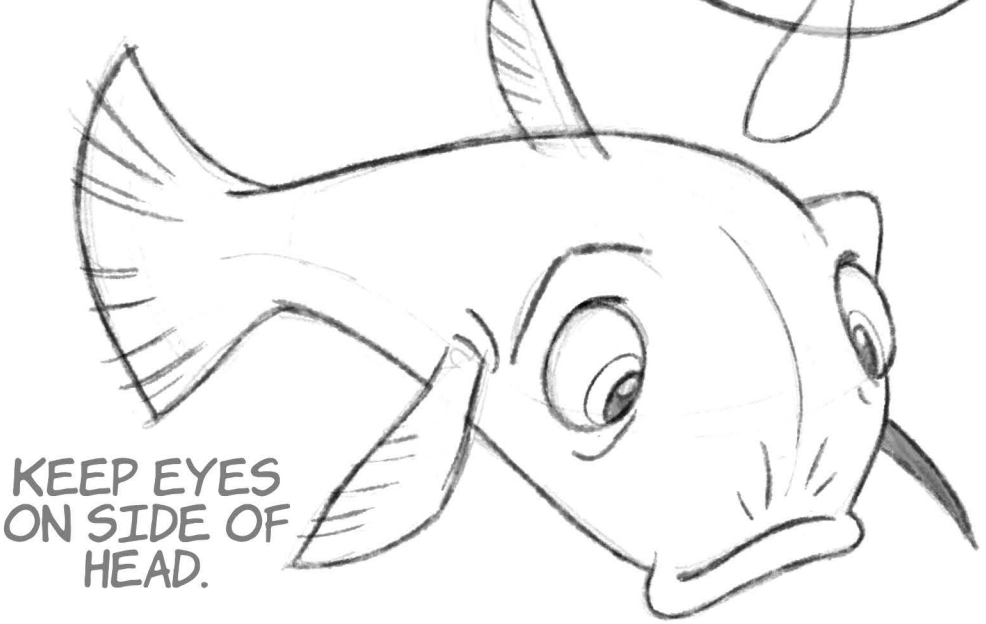





FISH CONSTRUCTION TENDS TO BE SIMPLE.

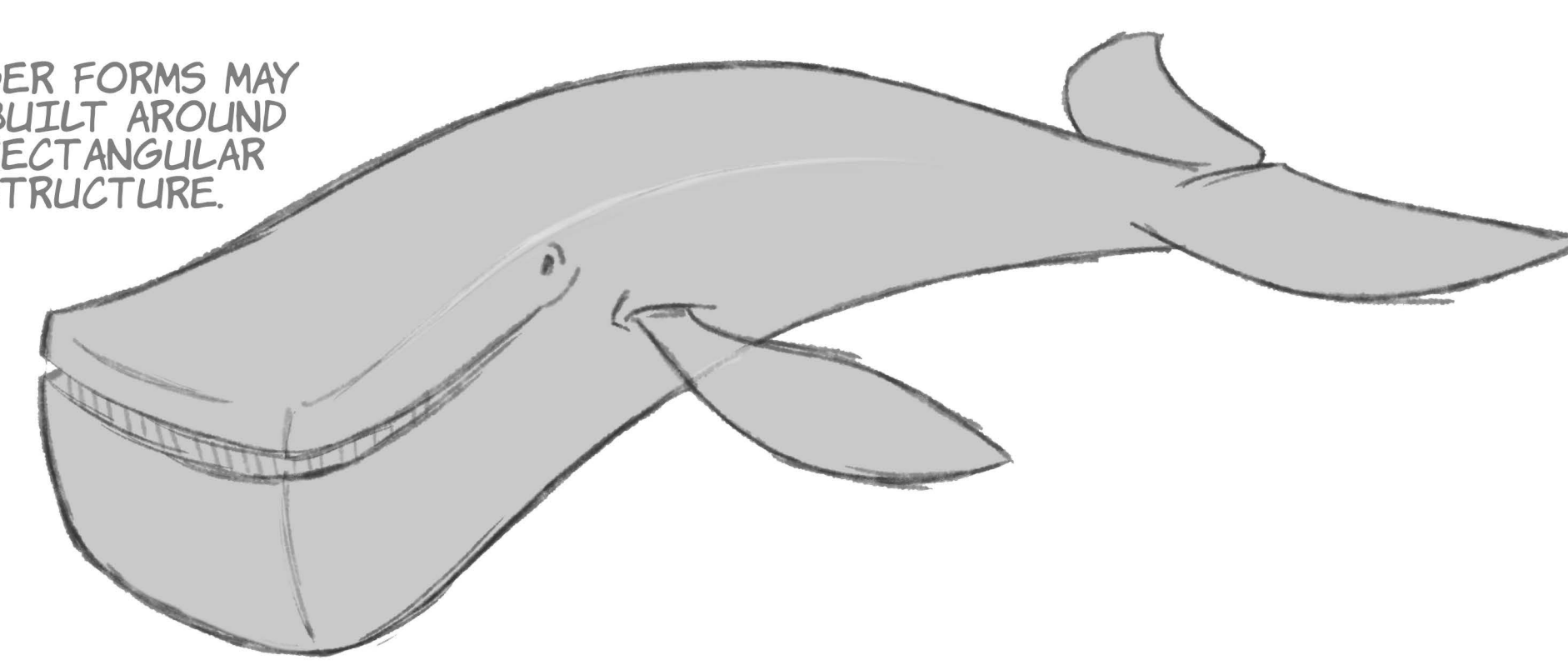


KEEP EYES ON SIDE OF HEAD.





LARGER FORMS MAY BE BUILT AROUND A RECTANGULAR STRUCTURE.



03_17: CREATURES

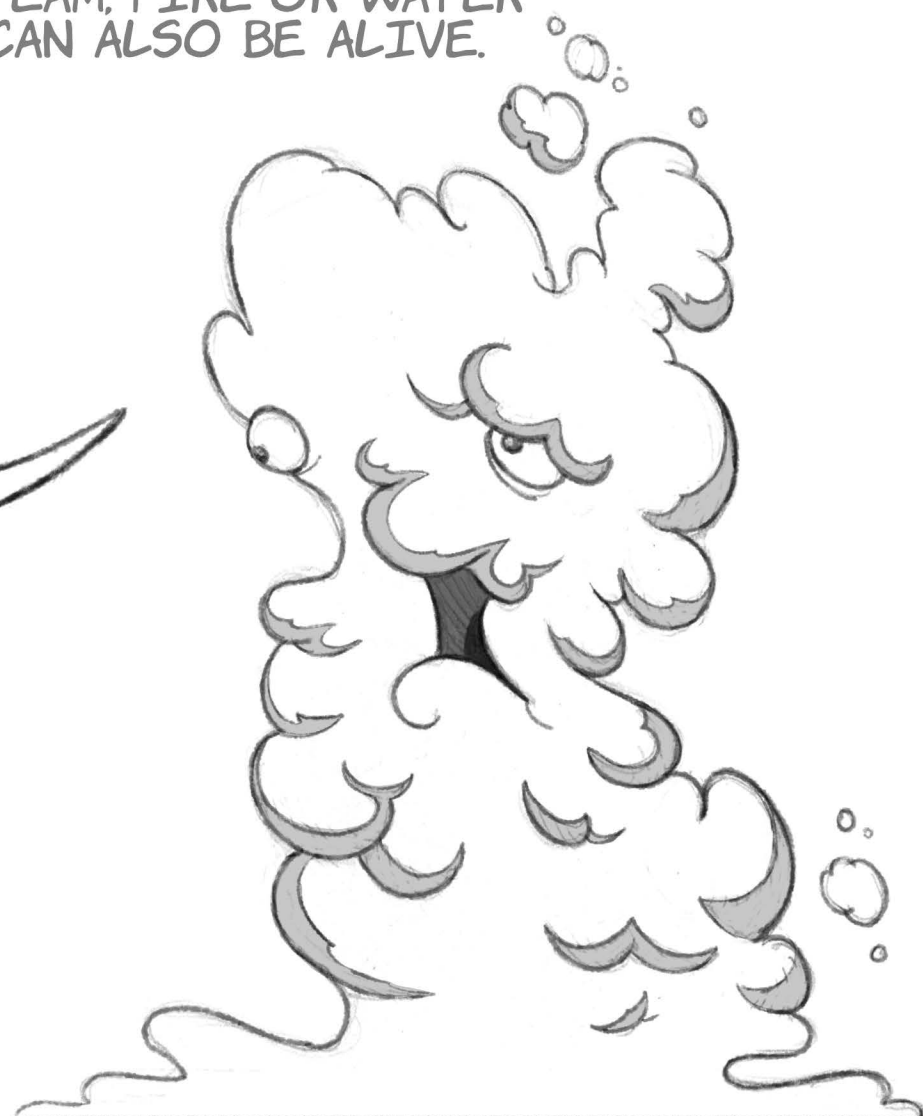
ALIENS ARE AN OPPORTUNITY FOR FUN AND EXAGGERATION.



DINOSAURS FOLLOW THE SAME GENERAL ANATOMICAL PRINCIPLES AS LIVING ANIMALS.



NATURAL ELEMENTS LIKE STEAM, FIRE OR WATER CAN ALSO BE ALIVE.



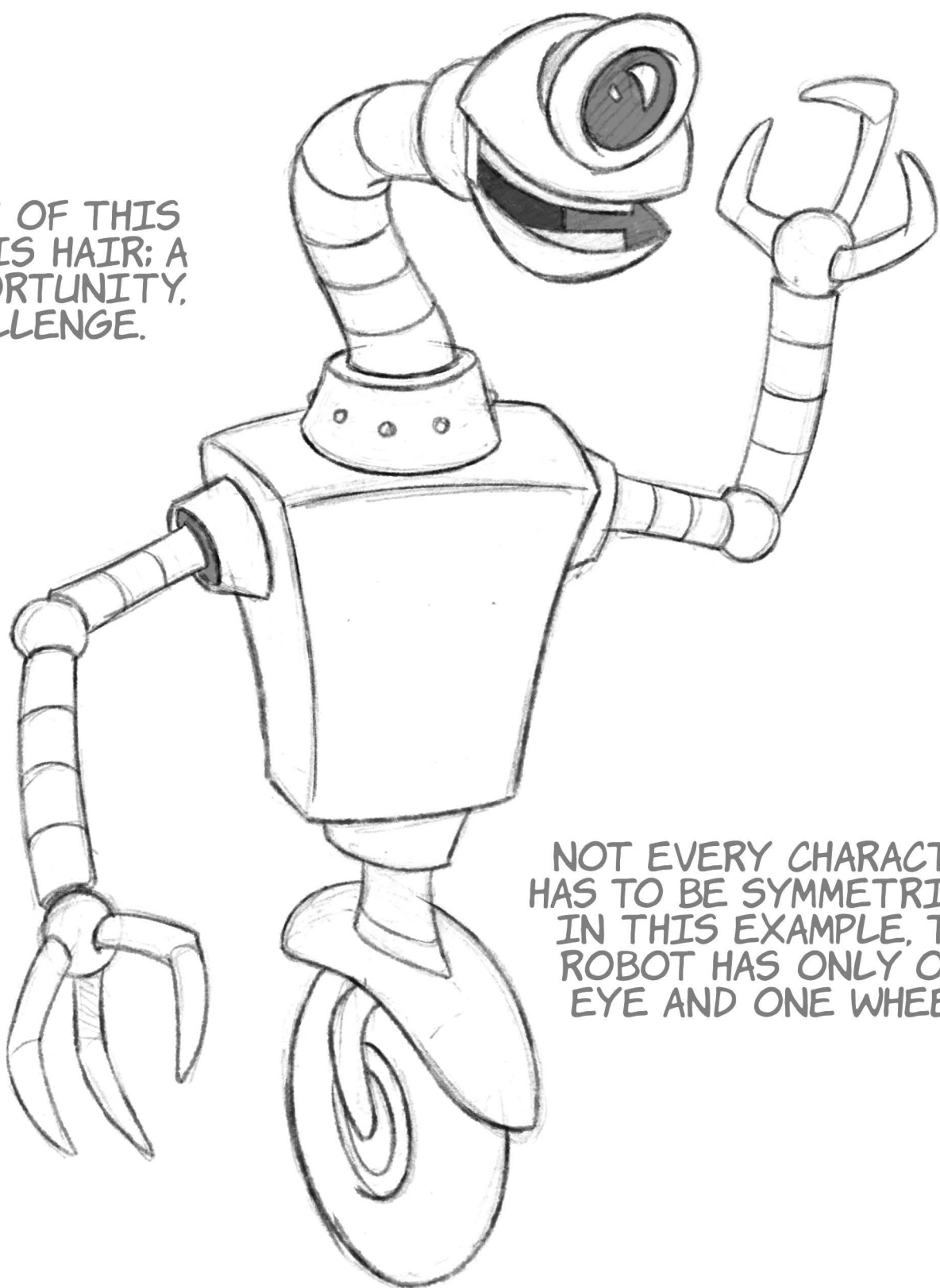
PARTICULARLY WITH FANTASTIC CHARACTERS, BE ADVENTUROUS.



EVERY PART OF THIS CHARACTER IS HAIR: A GREAT OPPORTUNITY, AND A CHALLENGE.



NOT EVERY CHARACTER HAS TO BE SYMMETRICAL: IN THIS EXAMPLE, THE ROBOT HAS ONLY ONE EYE AND ONE WHEEL.

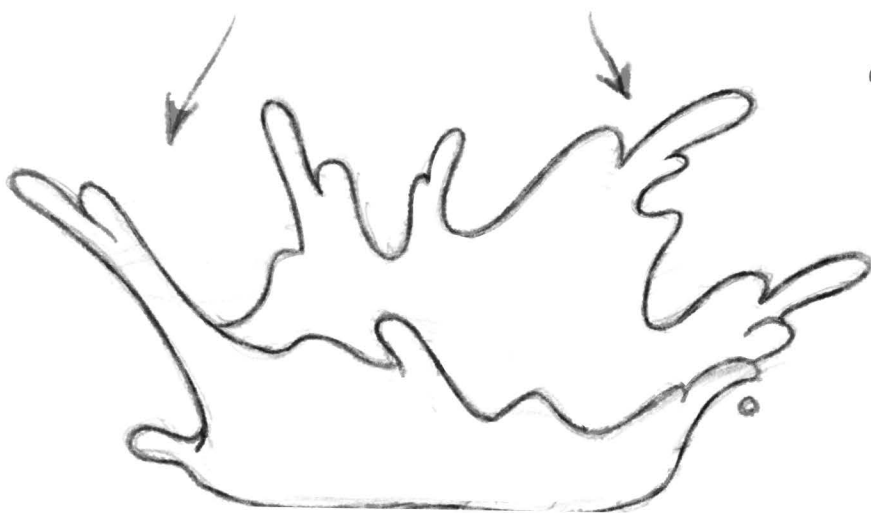


03_18: FX

SPLASHES HAVE STRUCTURE. DRAW A SHAPE LIKE THIS FIRST:



THEN ADD DETAIL. NOTE THE IRREGULAR SHAPE/ASYMMETRY:

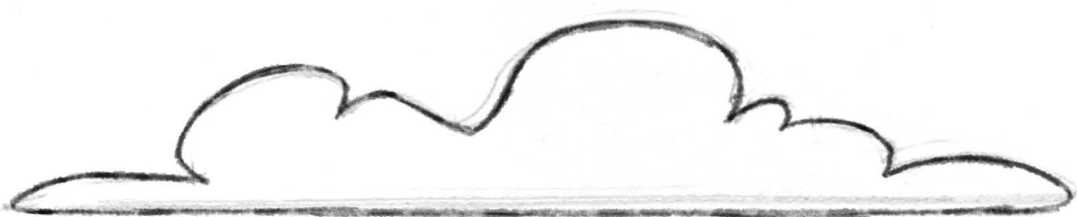


ADD DETAILS: (AGAIN, SPACE THEM IRREGULARLY)

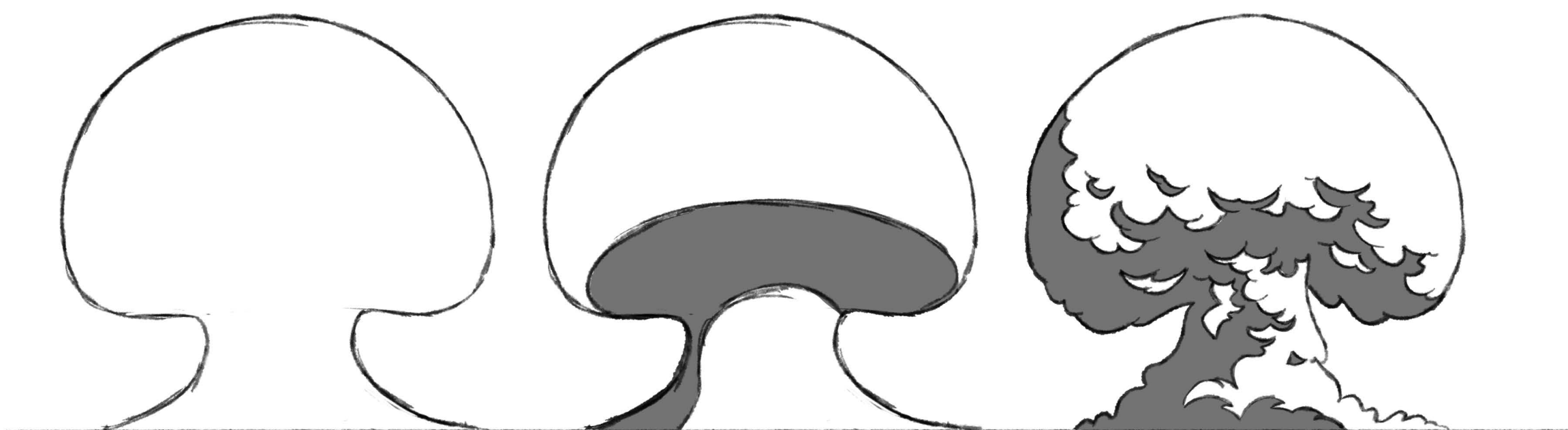


STYLIZED CLOUDS (WITH ORNATE CURLS)

STYLIZED CLOUDS (WITH FLAT BOTTOM)



CLOUDS ALSO HAVE STRUCTURE.



A NATURAL LOOK, WITH SHADED AREAS FOR VOLUME.

FIRE IS SINUOUS. SHAPES CAN TEAR OFF AND QUICKLY DISSIPATE.



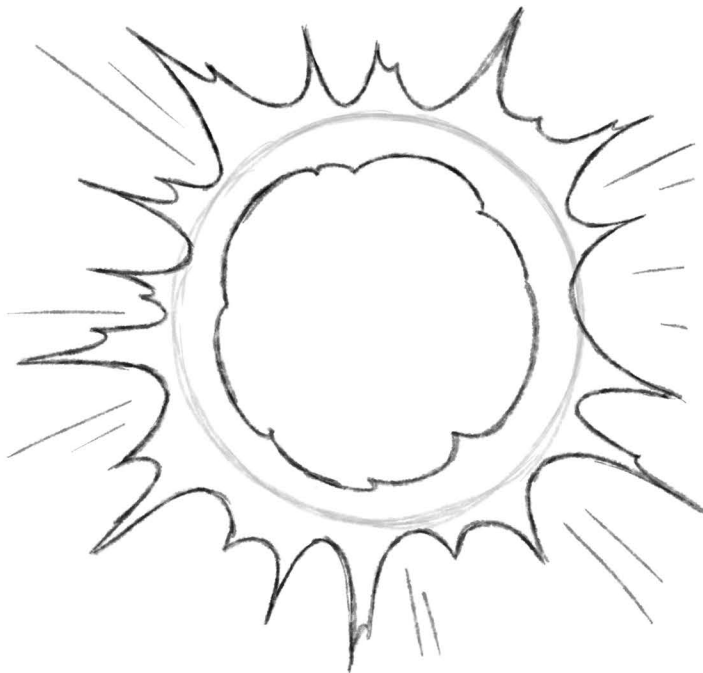
FIRE CAN ALSO BE ANTHROPOMORPHIZED.



OCEAN FORMS FLOW INTO ONE ANOTHER; SEPARATE WATER INTO COLORED BANDS.

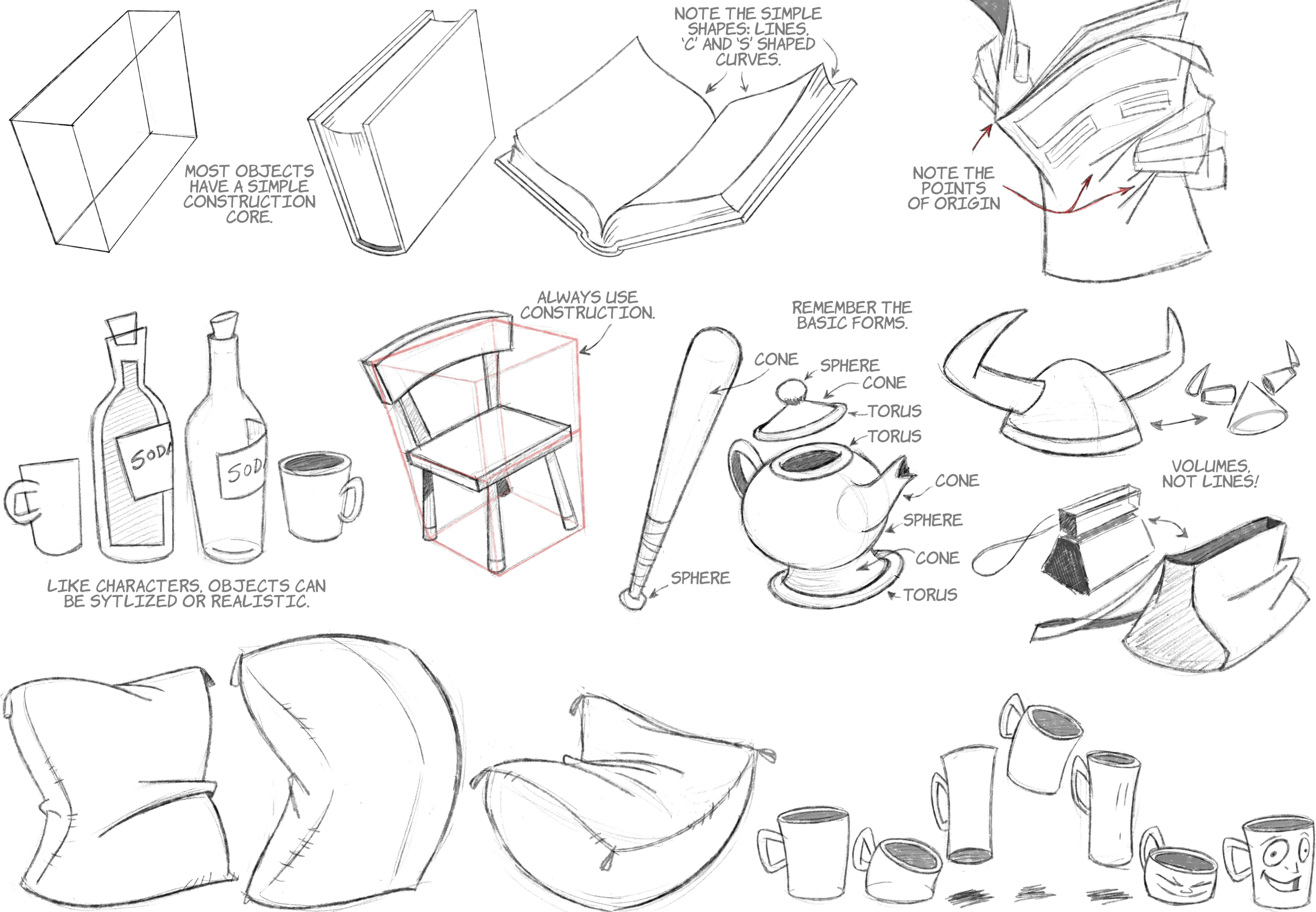


DRAW IMPACT VOLUME.



ADD STRUCTURE AROUND THAT SHAPE.

03_19: OBJECTS



IN CARTOONS, INANIMATE OBJECTS CAN POSSESS EMOTIONS, OR PERSONALITY.

O4_01: BRINGING IT ALL TOGETHER

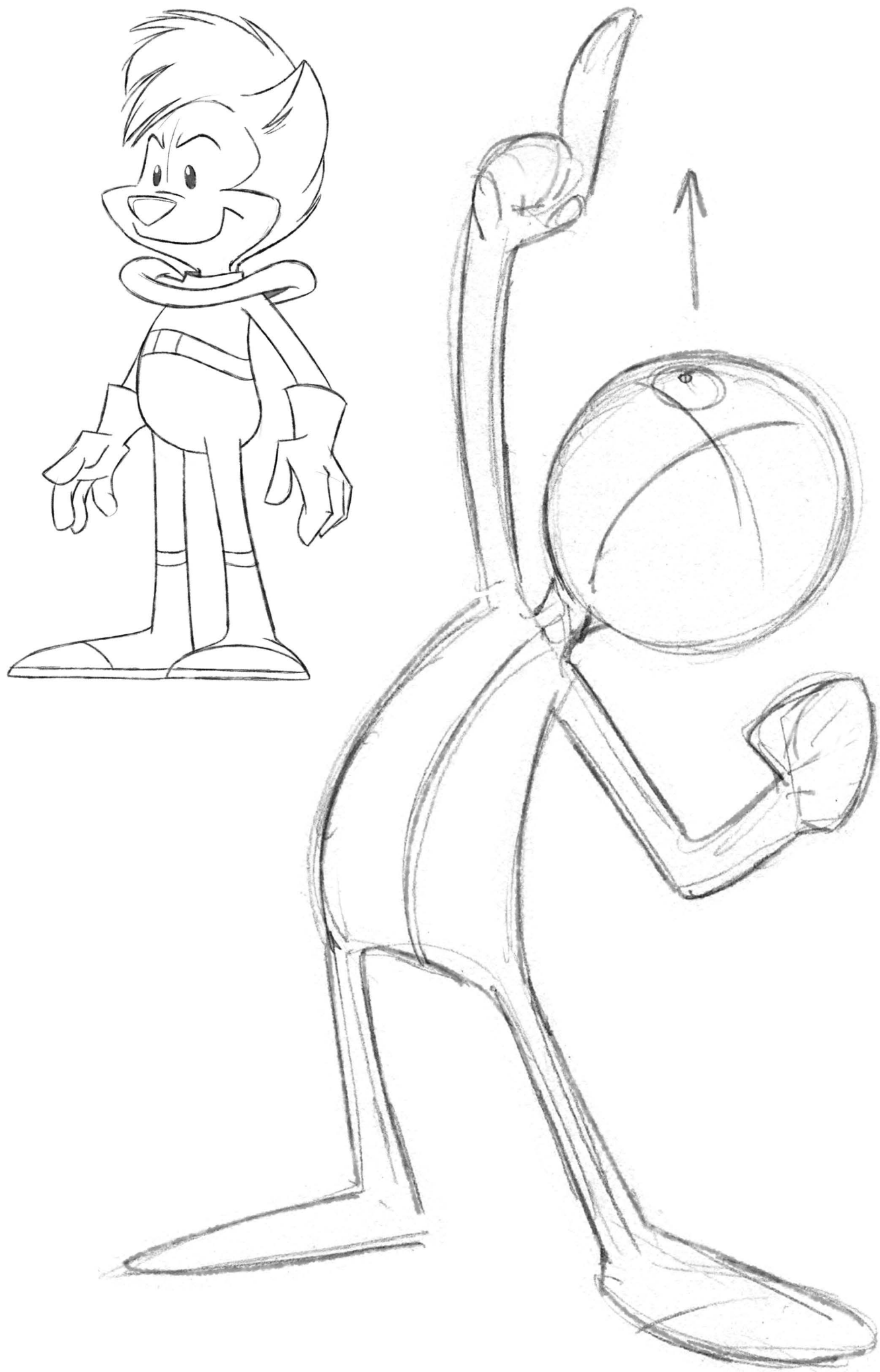
FINISHED EXAMPLE OF A
ROUGH CHARACTER STUDY,
WHICH INCORPORATES
ALL THE PRECEDING
LESSONS.



O5_01: ROUGH CONSTRUCTION

THE CHARACTER WE'LL LATER USE IN O5_05
WILL NOW BE DRAWN IN A DYNAMIC POSE.

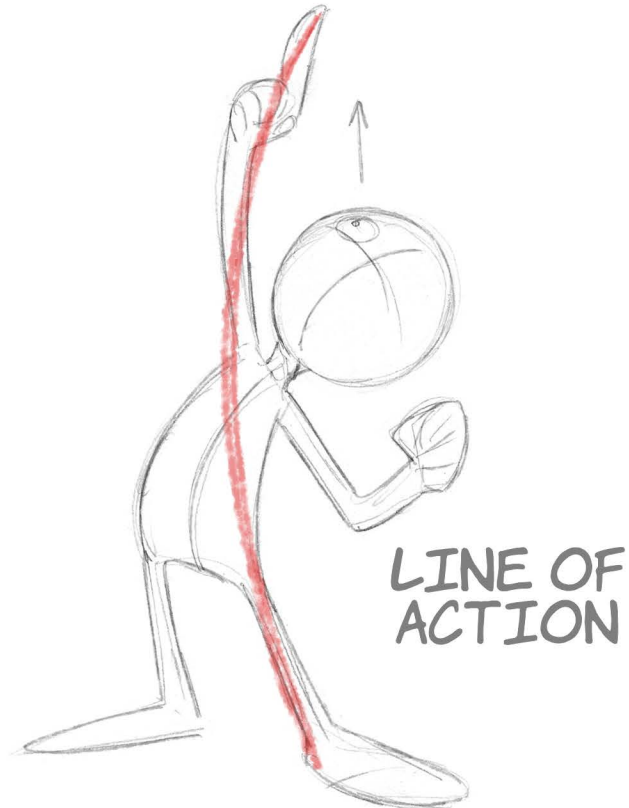
THE FIRST DRAWING MUST BE LOOSE, WITH
AS LITTLE SECONDARY DETAIL AS POSSIBLE.



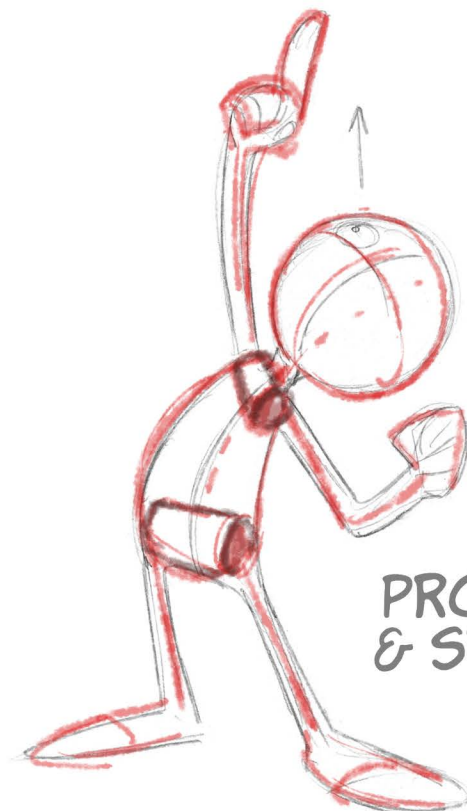
DRAW THESE GESTURE SKETCHES QUICKLY AND WITHOUT
MUCH ERASING. IF YOU DON'T LIKE A POSE OR A DRAWING,
JUST START A NEW ONE.

YOU SHOULD BE ABLE TO DO ONE OF
THESE SKETCHES IN ABOUT A MINUTE.

FACTORS FOR ROUGH PASS:



LINE OF
ACTION



PROPORTION
& STRUCTURE



SILHOUETTE
& NEGATIVE
SPACES



WHEN ROUGHING, THE FOCUS IS ON PORTRAYING
THE EMOTION AND THE PHYSICAL ACTION.

WHAT IS THE CHARACTER THINKING?

WHAT IS THE CHARACTER FEELING?

WHAT IS THE CHARACTER DOING?

DRAW FAST. DRAW LOOSE.

BESIDES THE ACTION AND THE FEELINGS YOU
ARE TRYING TO DRAW, WATCH OUT FOR THE
LINE OF ACTION, PROPORTION, AND THE
SILHOUETTE AND NEGATIVE SPACES.



THE ROUGH GESTURE DRAWING WILL BE THE
BASIS FOR THE NEXT DRAWING, SO WATCH
THE PROPORTIONS, AS YOU DON'T WANT THE
MODEL TO DRIFT TOO FAR.

FINDING THE BALANCE BETWEEN LOOSENESS
AND CONTROL WILL ALLOW YOU TO CREATE
SUCCESSFUL ROUGH CHARACTER POSES.



05_02: TIE-DOWN

BLOCKING IN THE DETAILS

(1) ROUGH



USE THIS LEVEL OF
DETAIL TO APPROVE
THE POSE AND THE
GENERAL ACTION.



AFTER THE GESTURE DRAWING, THE
NEXT PASS IS THE TIE-DOWN.

ADD THE DETAILS. NOTE THE LOOSE HANDS AND FINGERS:
MANY LINES ARE LIGHT, OR HAVE MULTIPLE STROKES.
NEVERTHELESS, THE FIGURE IS RECOGNIZABLE.

MANY ANIMATED SCENES HAVE BEEN
APPROVED IN THIS ROUGH FORM.

(2) TIGHT



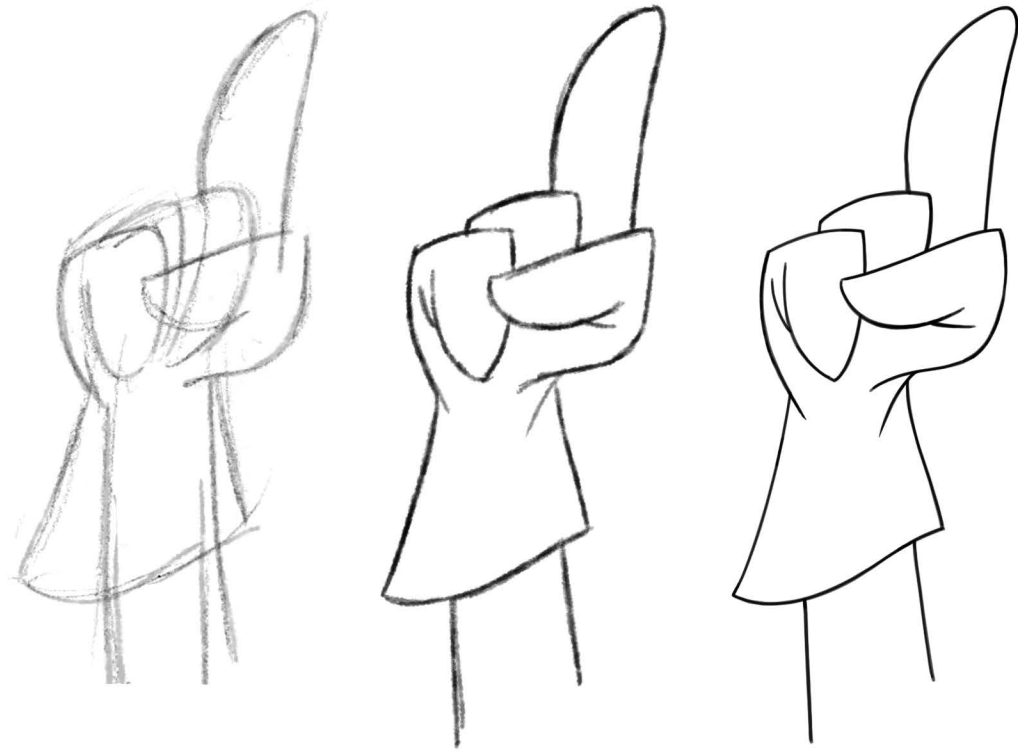
USE THIS LEVEL OF
DETAIL FOR FOLLOW
UP, CLEAN-UP OR
VECTORIZING.



A FURTHER PASS TIGHTENS IT. REFINE
THE DETAILS. THIS LEVEL OF WORK IS
USUALLY NEEDED BEFORE CLEANING UP
THE IMAGE FOR PAINTING.

05_03: CLEAN-UP

PREPARING THE DRAWING FOR COLOR



ROUGH TIE-DOWN CLEAN-UP

TRADITIONALLY, CLEAN-UP WAS THE PROCESS OF REDRAWING THE TIE-DOWNS WITH A CLEAN BLACK PENCIL DRAWING. THIS WOULD THEN BE PHOTOCOPIED ONTO A TRANSPARENT CEL AND PAINTED.

TODAY, CEL PAINTING IS KNOWN AS DIGITAL INK AND PAINT (DIP). THERE IS STILL A NEED FOR CLEAN-UP DRAWINGS... NOT JUST ON ANIMATED PROJECTS, BUT ALSO ON ART FOR PRINT MEDIA.

PROGRAMS LIKE TOONBOOM HARMONY, ADOBE FLASH AND OTHERS ALLOW YOU TO DRAW DIRECTLY INTO THE COMPUTER, BYPASSING THE NEED FOR PAPER. THIS CAN ALLOW A TIE DOWN TO BE USED AS FINAL ART, IF IT'S REASONABLY CLEAN.

A CLEAN TIE-DOWN OFTEN HAS MORE VITALITY THAN A CLEAN-UP WITH A SINGLE PERFECT LINE.

ALSO, IT'S MUCH FASTER TO DRAW A CLEAN TIE-DOWN THAN A CLEAN-UP.

HERE IS A GOOD EXAMPLE OF A TIE-DOWN THAT'S BEEN USED AS FINAL ART.



THE PROCESS OF CLEAN-UP:



THE ROUGH DRAWING TO BE CLEANED UP.



HOW NOT TO CLEAN-UP: A DEAD LINE OF ONE WEIGHT HAS BEEN MINDLESSLY TRACED OVER THE ROUGH, KILLING AND FLATTENING IT.



COMPARE WITH A STRONGER CLEAN-UP. THE LINE WIDTH VARIES, AND THE DRAWING HAS BEEN CAREFULLY REFINED AND IMPROVED.



THE AREAS OF MOST CHANGE ARE MARKED IN RED.

ANOTHER METHOD IS TO CREATE A VECTOR-BASED CLEAN-UP OF THE DRAWING IN A PROGRAM LIKE ADOBE ILLUSTRATOR OR FLASH, OR TOONBOOM HARMONY. THIS IS BEYOND THE SCOPE OF THIS COURSE.

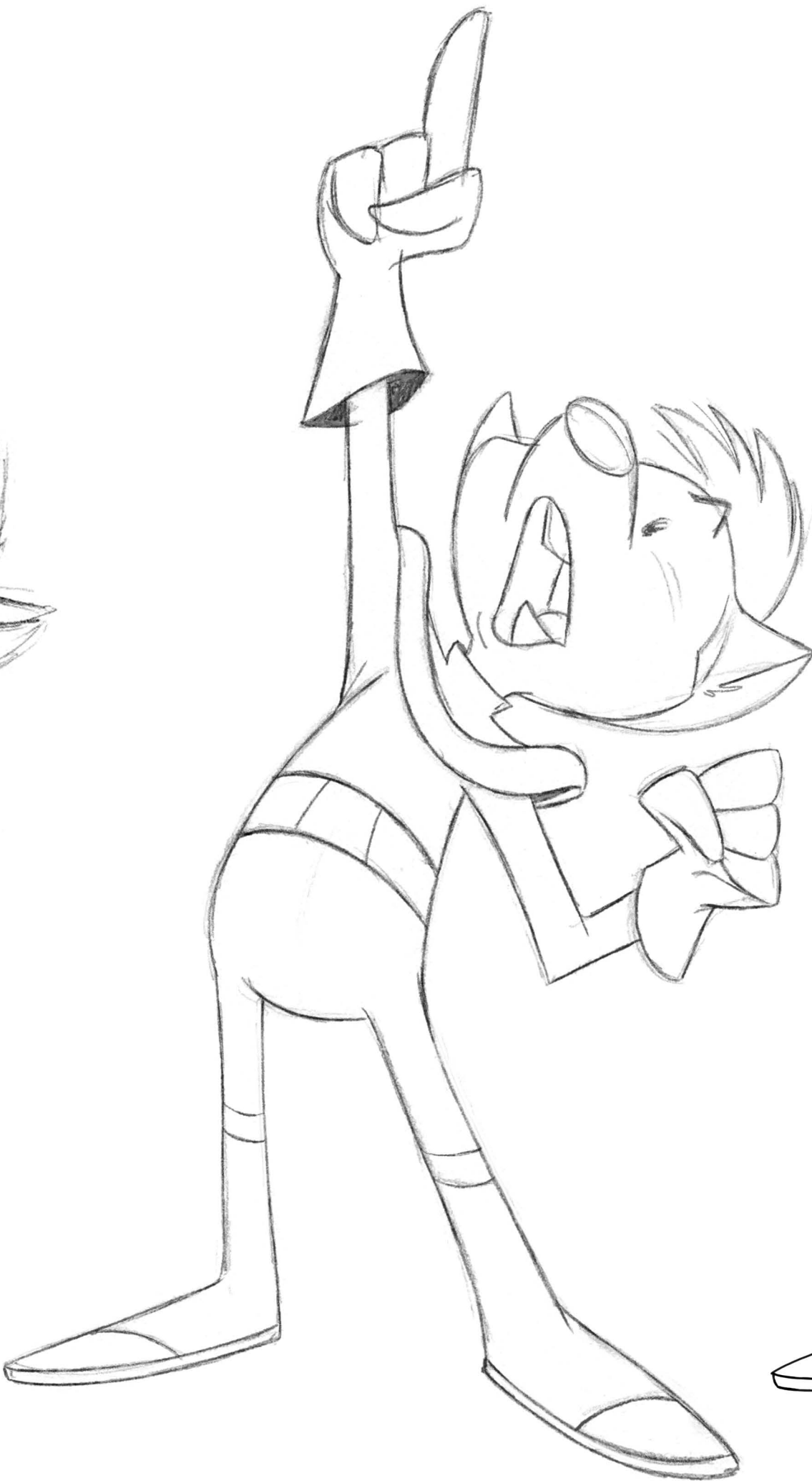
O5_O3: CLEAN-UP

PREPARING THE DRAWING FOR COLOR

ROUGH



TIE-DOWN



CLEAN-UP



RULES OF
GOOD CLEAN-UP:

KEEP THE DRAWING ON MODEL
(OR FIX IT IF IT'S OFF).

DON'T JUST TRACE. THINK! PUSH
THE DESIGN A LITTLE (NOT BY
ENOUGH TO WRECK THE DRAWING,
JUST ENOUGH TO PUT A LITTLE
EXTRA LIFE INTO THE DRAWING).

FIX SUBTLE MISTAKES LIKE
TANGENTS AND PARALLELS.

ADD BREAKS TO CURVES WHERE
APPROPRIATE, AND TAKE CARE
NOT TO ERASE ANY THAT ARE
IN THE DRAWING ALREADY.

05_04: PLUSSING

IN A PREVIOUS CHAPTER WE SAW
HOW TO USE EXAGGERATION TO
RADICALLY IMPROVE A ROUGH POSE:



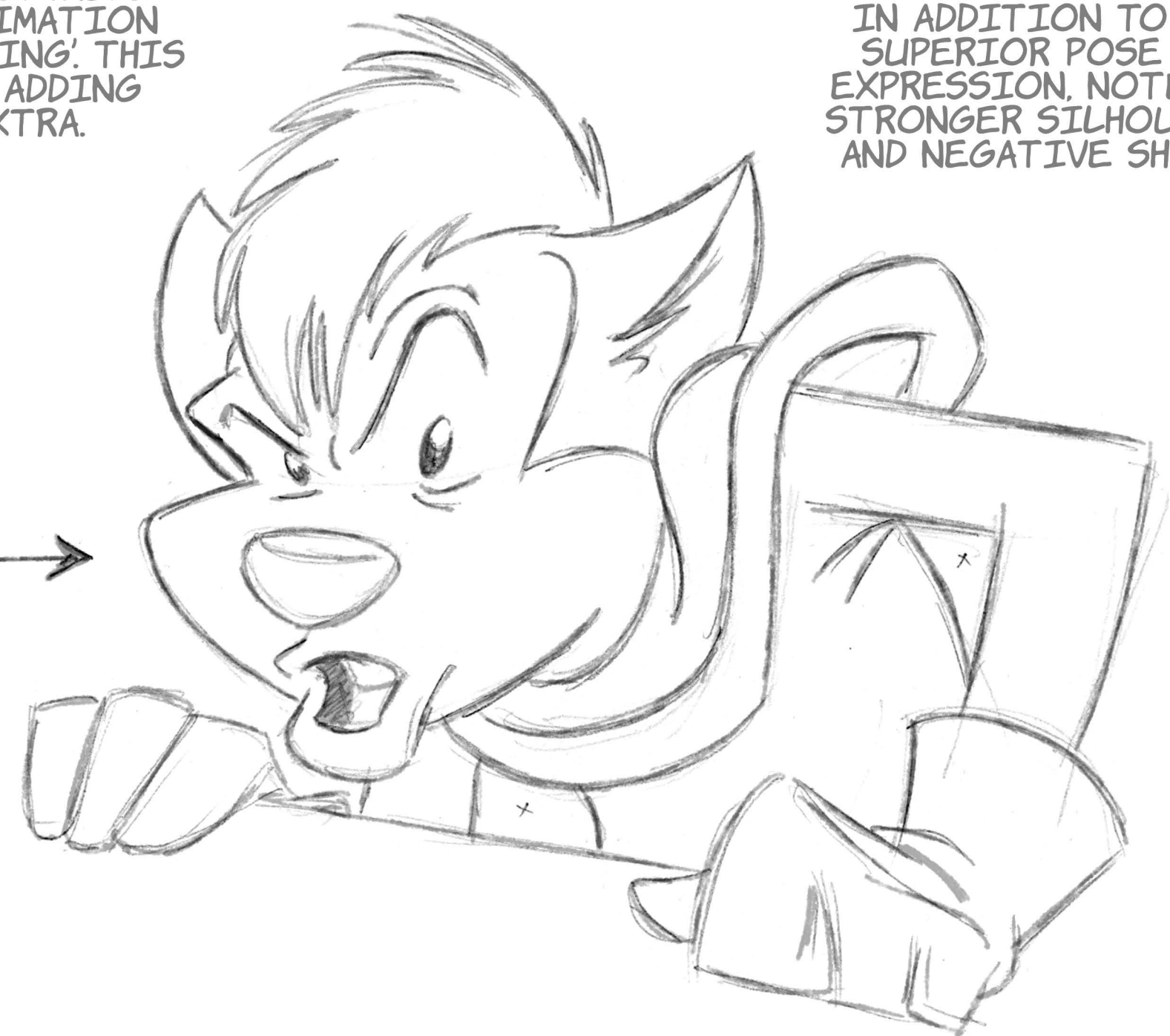
BEFORE ANIMATING TOO FAR,
BE SURE THAT YOU APPLY A
SIMILAR EFFORT TO YOUR
KEY POSES.

IF YOUR KEY POSE IS WEAK,
THAT WILL SPREAD TO ALL
THE DRAWINGS AROUND IT.

THE PROCESS OF IMPROVING
AN ALREADY ACCEPTABLE
DRAWING OR ANIMATION
IS CALLED 'PLUSSING'. THIS
IS THE ART OF ADDING
A LITTLE EXTRA.

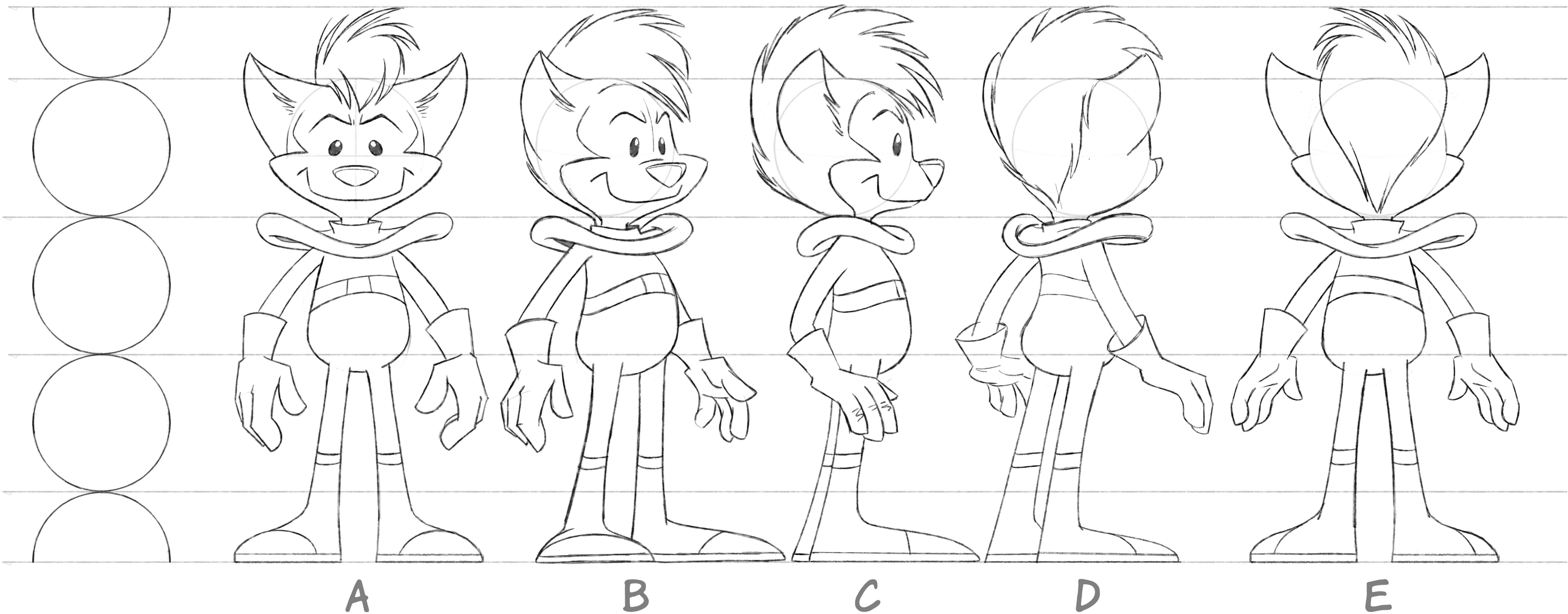


PLUS/PUSH!



IN ADDITION TO THE
SUPERIOR POSE AND
EXPRESSION, NOTE THE
STRONGER SILHOUETTE
AND NEGATIVE SHAPES.

05_05: MODEL SHEET (TURNAROUND)

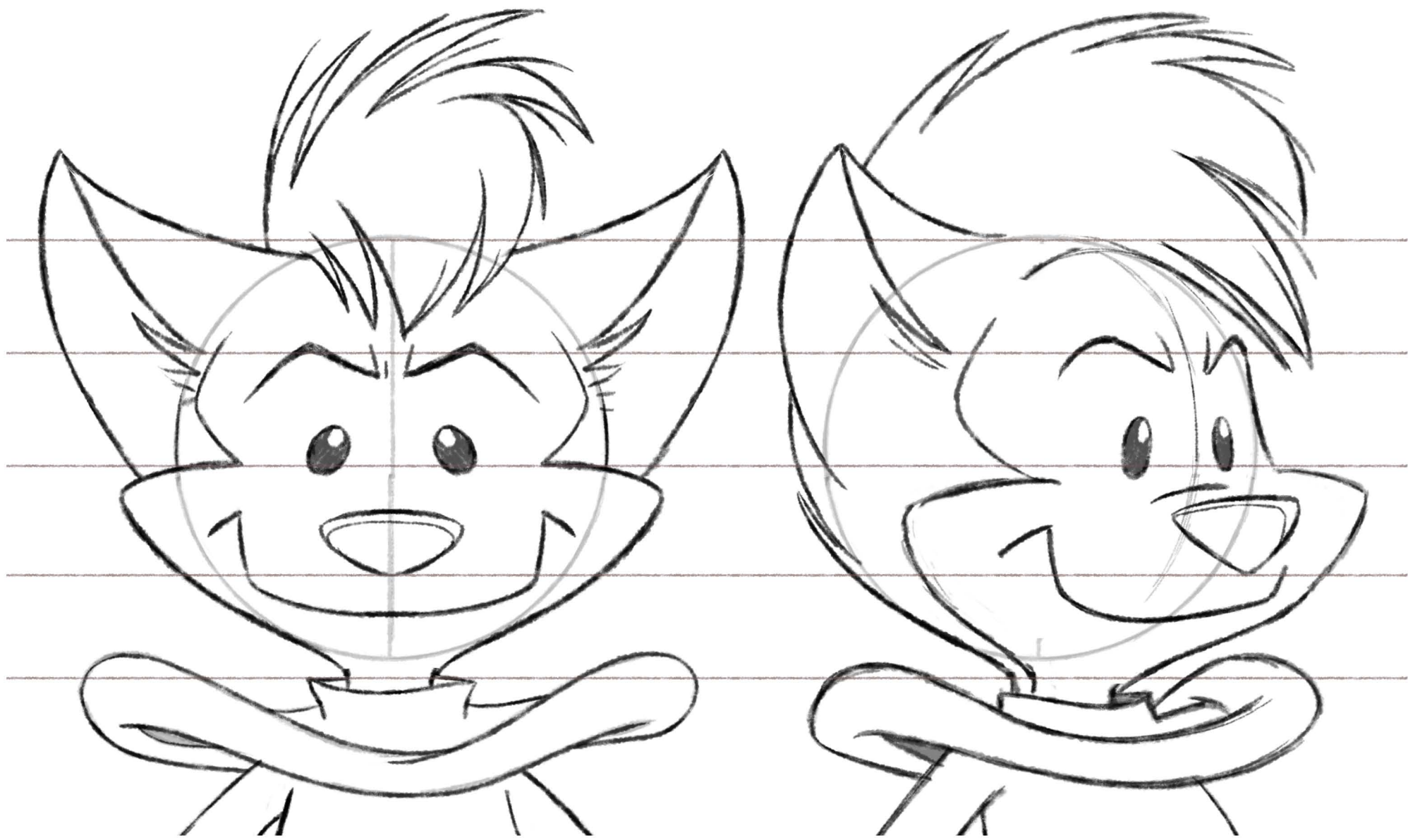


A MODEL SHEET DISPLAYS THE CHARACTER IN COMMON POSES, IN DIFFERENT DIRECTIONS.

IT'S A GOOD IDEA TO GIVE THE CHARACTER A FIXED HEIGHT, BASED ON HEAD OR SKULL SIZES. IN THIS EXAMPLE, THE FIGURE IS 4 HEADS TALL; THE TUFT OF HAIR ON THE HEAD IS 1/2 SKULL HEIGHT; THE TORSO IS APPROXIMATELY 1 SKULL HEIGHT. THE WRISTS ARE 1 AND 1/2 HEADS FROM THE GROUND, ETC.

THESE PROPORTIONS ARE A RULE OF THUMB; DO NOT FOLLOW THEM TOO STRICTLY, AS THE CHARACTER WILL BE SQUASHED, STRETCHED AND DISTORTED. THIS WILL CHANGE THESE PROPORTIONS FROM THE IDEAL.

DO NOT MEASURE YOUR CHARACTER DRAWINGS WITH A RULER. EYEBALL OR ESTIMATE THESE PROPORTIONS.

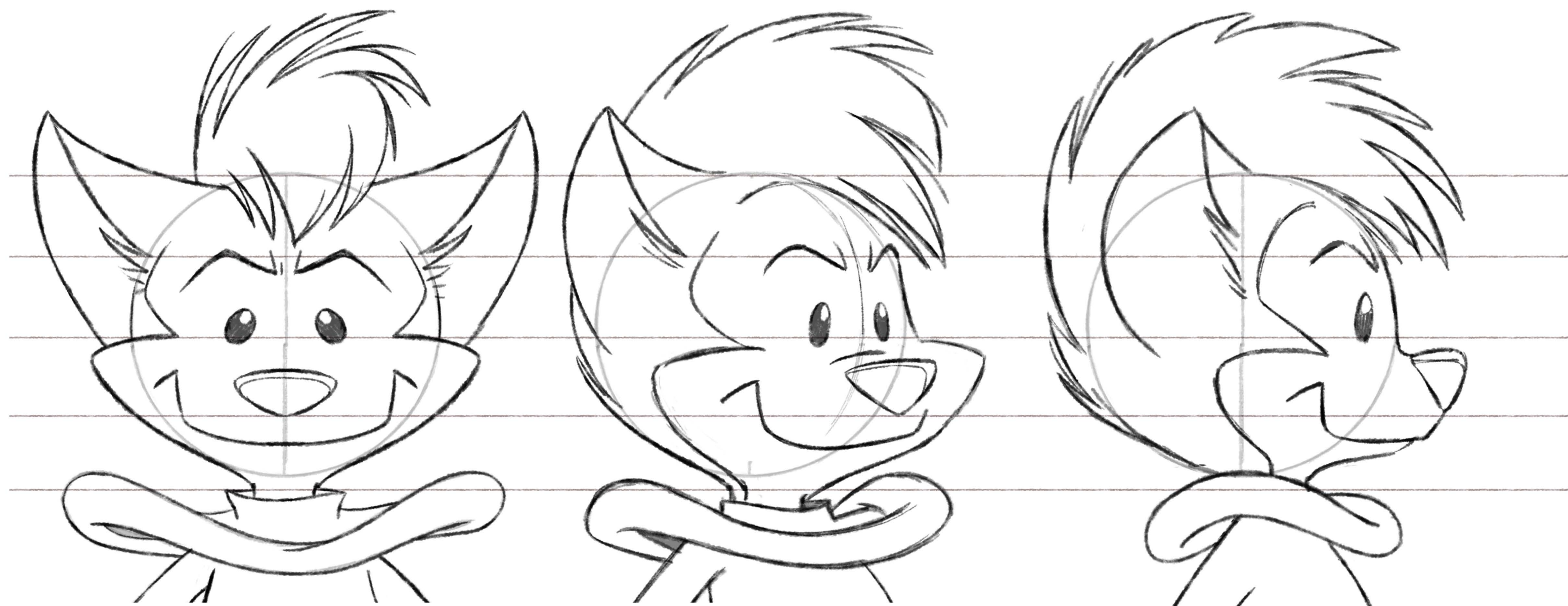


MODEL SHEETS CAN ALSO SHOW CLOSEUPS OF AREAS LIKE HEADS, HANDS, MOUTHS OR ANY PARTICULAR REGION FOR FURTHER INSTRUCTION ON HOW TO DRAW THEM.

HERE WE SEE THE CORRECT SPACING OF THE EYELINE, BASE OF NOSE, AND THE ROUGH PLACEMENT OF THE EYEBROWS.

AGAIN, THESE WILL VARY AS YOU MODIFY THE CHARACTER'S POSE OR EXPRESSION, SO UNDER NO CIRCUMSTANCE SHOULD YOU REGARD THESE POSITIONS AS ABSOLUTE.

O5_O5: MODEL SHEET (HEADS & MOUTHS)

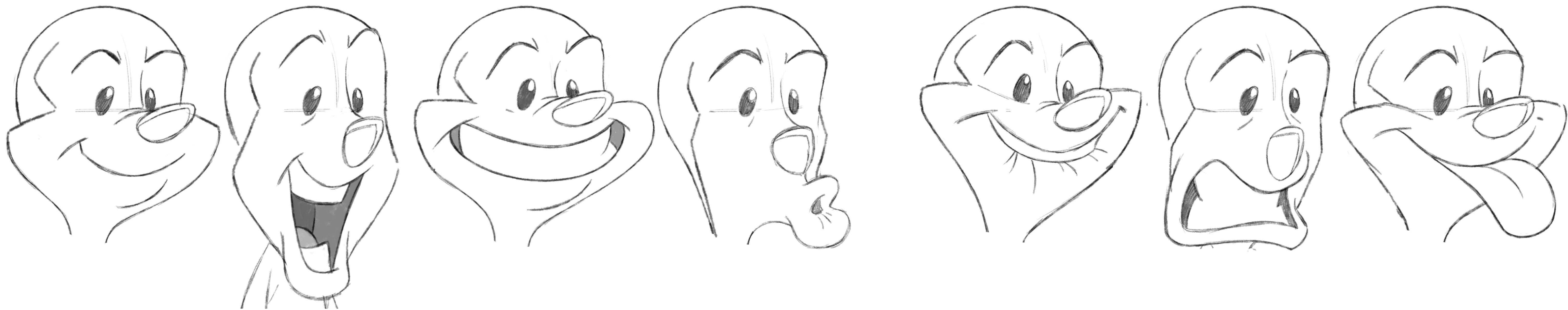


A MODEL SHEET CAN BE FOCUSED SPECIFICALLY ON THE HEAD, FACE AND MOUTH.

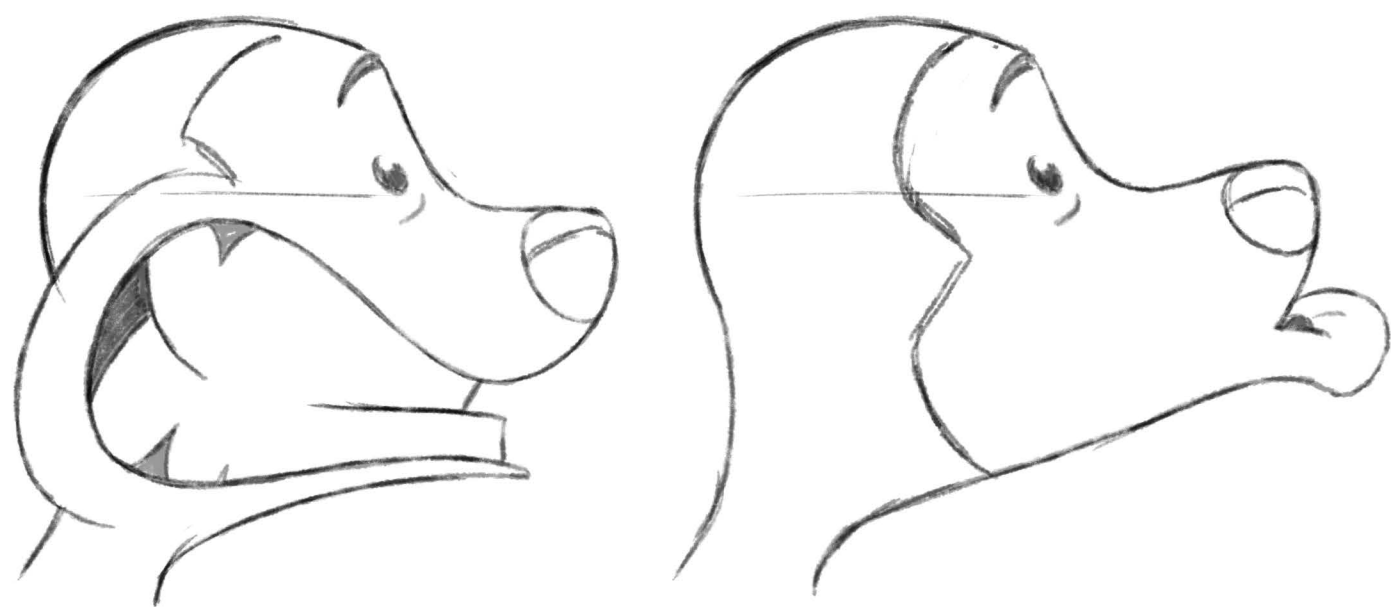
IT CAN SHOW THE PROPORTIONS AND MAIN CONSTRUCTION LINES.

NOTE HOW THE TIP OF THE NOSE IN THE PROFILE VIEW IS SLIGHTLY LOWER THAN IN THE THREE-QUARTER VIEW. REMEMBER THAT DRAWINGS ARE IN PERSPECTIVE OR DEPTH, AND FEATURES CAN SLIGHTLY CHANGE ON THEIR GUIDE LINES AS THEY MOVE AWAY IN 3D SPACE.

THIS IS ANOTHER REASON WHY MODEL SHEETS SHOULD NOT BE FOLLOWED UNTHINKINGLY. IT IS NOT ENOUGH TO SIMPLY BOLT YOUR FEATURES ONTO A LINE, AND TO REGARD IT AS BEING 'ON MODEL'.



ANY NUMBER OF MOUTH SHAPES / DESIGNS CAN BE INCLUDED ON THE MODEL SHEET. CREATE AS MANY MODEL SHEETS AS YOU THINK THE CHARACTER REQUIRES.

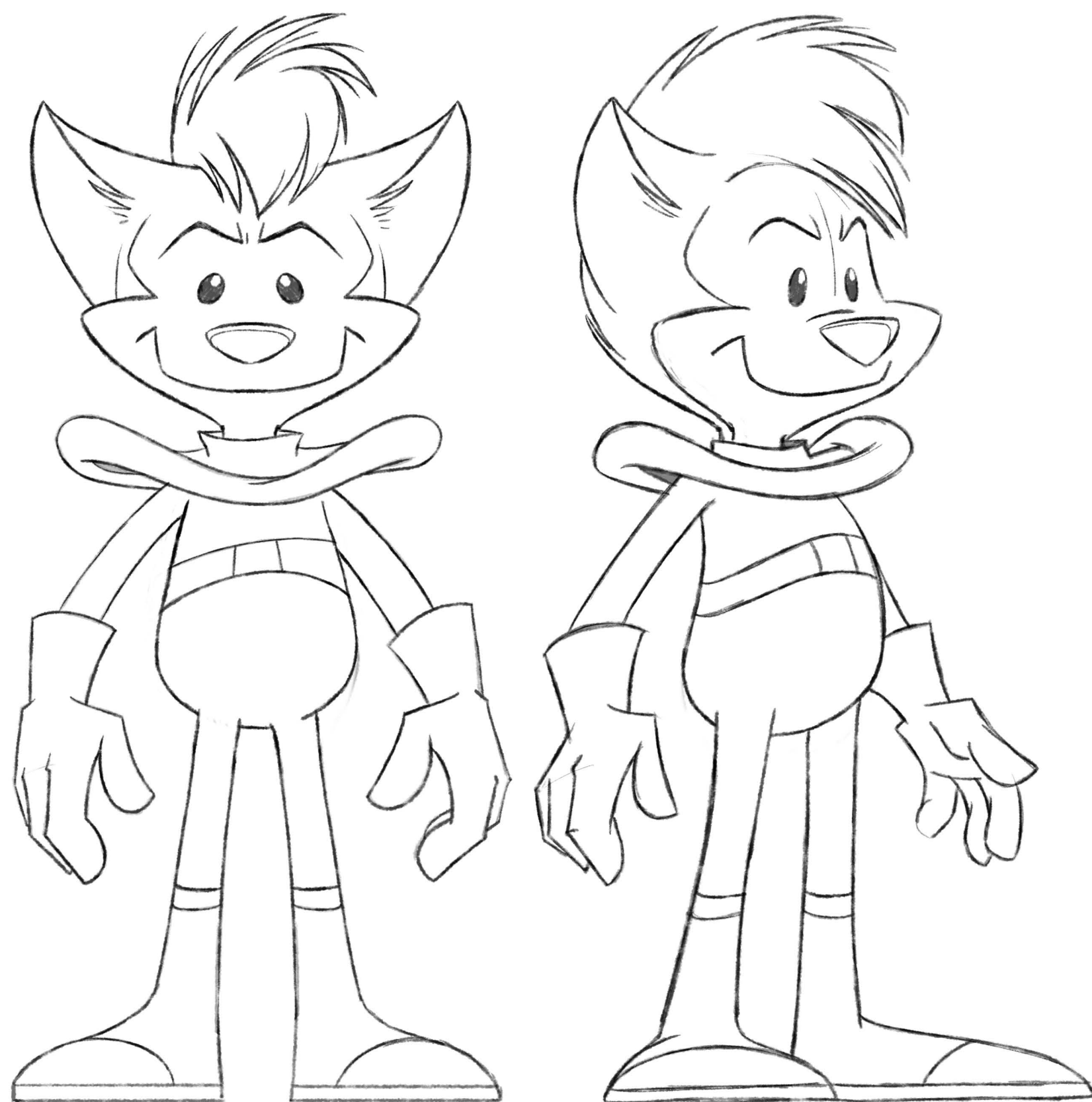


MODEL SHEETS CAN CONTAIN SOLUTIONS TO PARTICULAR DESIGN ISSUES, SUCH AS THE CHEEK AREA IN EXTREME EXPRESSIONS.

BY SOLVING PREDICTABLE DESIGN PUZZLES, SUCH AS THE APPEARANCE OF THE FACE IN UNUSUAL ANGLES, YOU ENSURE CONSISTENT DESIGNS FROM EVERYONE ON YOUR TEAM.

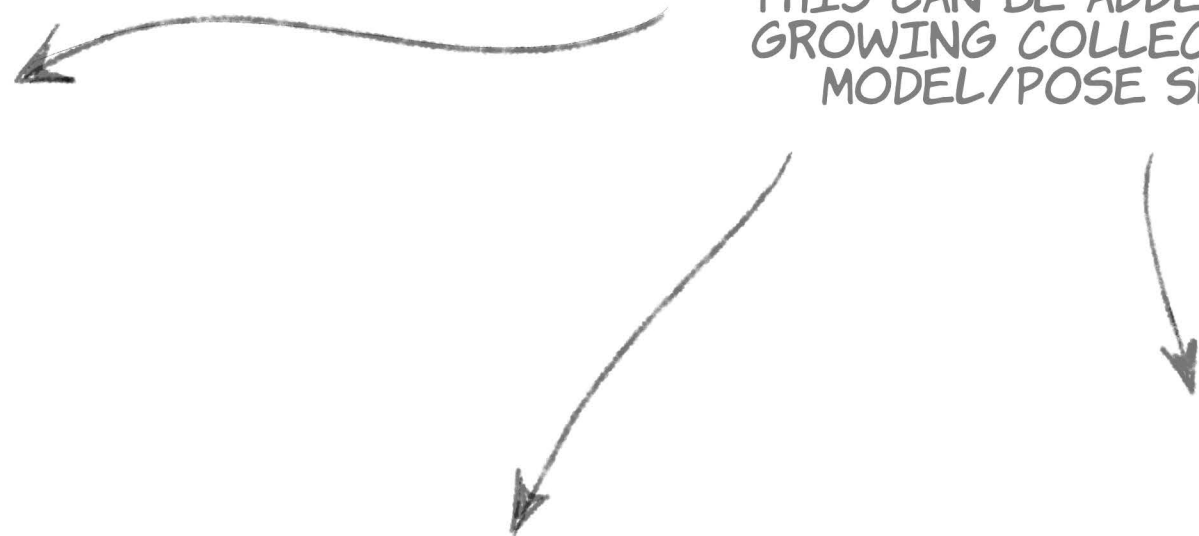


O5_O5: MODEL SHEET (POSES)



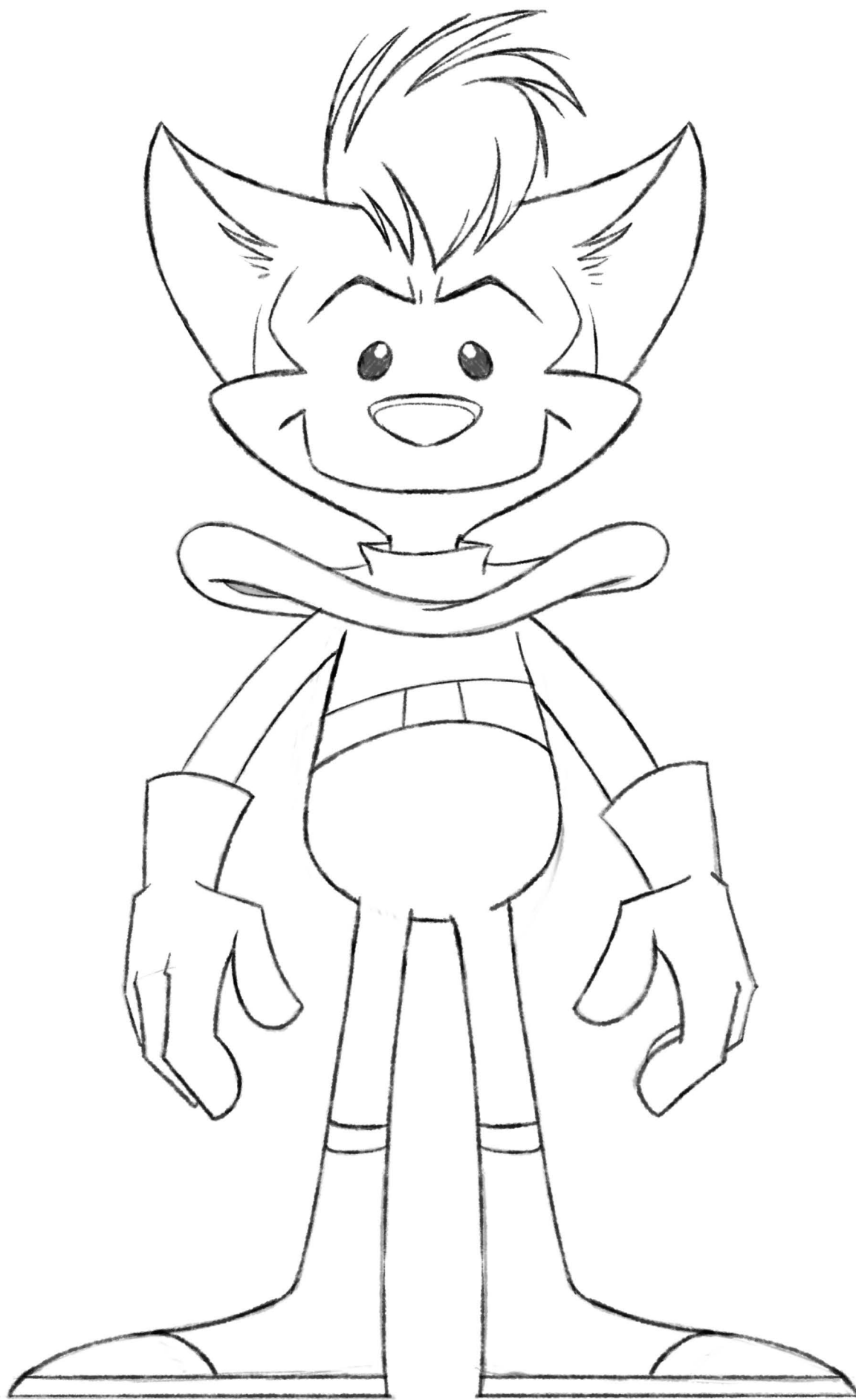
SOME MODEL SHEETS ARE JUST COLLECTIONS OF STRONG POSES OR DESIGNS. THESE POSE SHEETS ALLOW EVERYONE TO WORK TOWARD A SIMILAR LOOK AND CHARACTERIZATION.

WHEN AN ANIMATOR CREATES A PARTICULARLY STRONG DRAWING, THIS CAN BE ADDED TO THE GROWING COLLECTION OF MODEL/POSE SHEETS.



05_06: STYLES

THE SAME CHARACTER CAN BE TREATED WITH VARIOUS DEGREES OF REALISM OR CARTOONINESS.



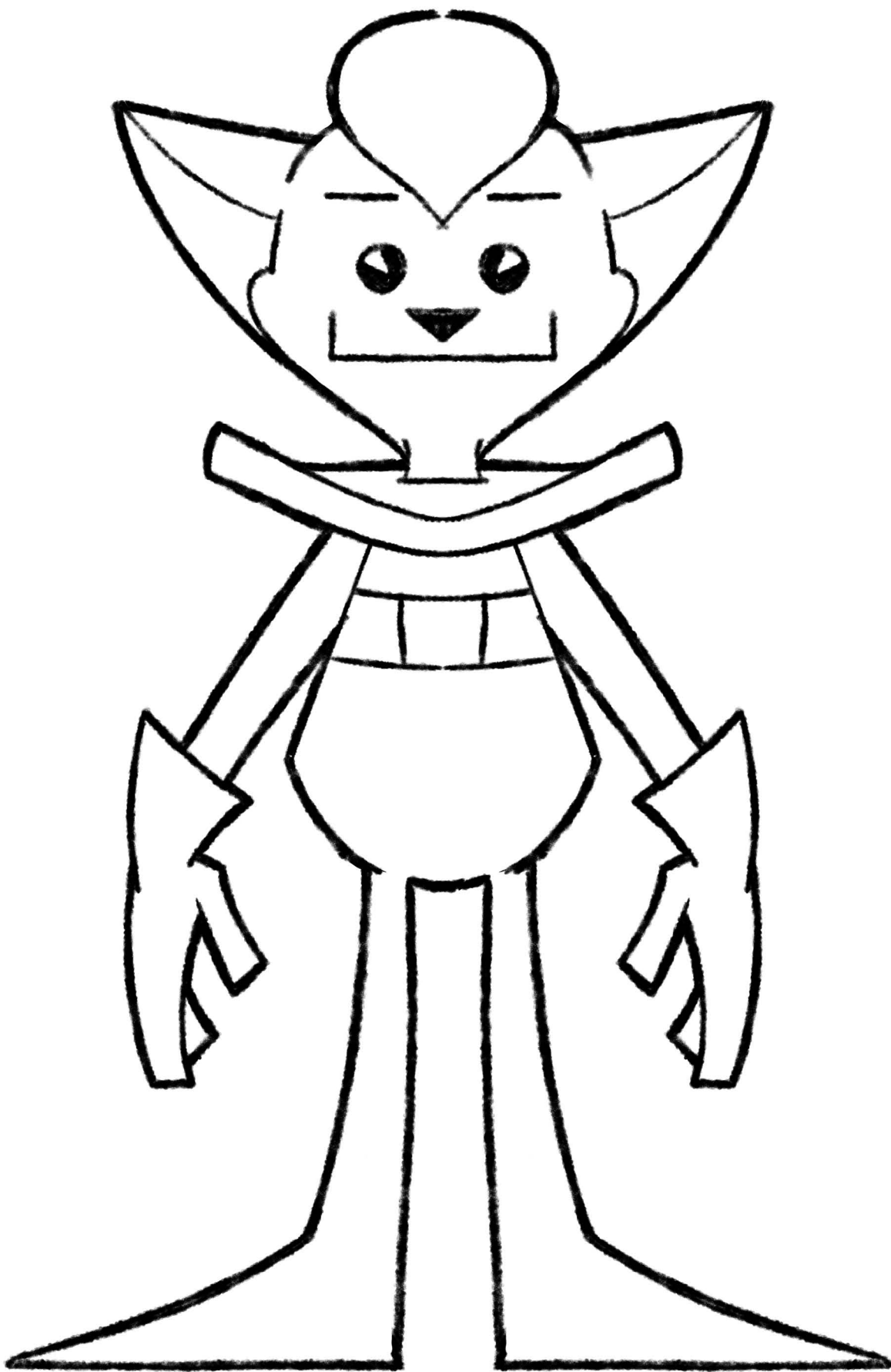
CARTOONY

THE CLASSIC (1940S-ERA) STYLE.



REALISTIC

MORE 'S' CURVES; MORE FINE HAIR DETAILS; THE EYES HAVE WHITES; MORE CREASES.



STYLIZED/FLAT

THE CHARACTER IS STRIPPED DOWN TO ITS MOST BASIC GRAPHIC SHAPES.

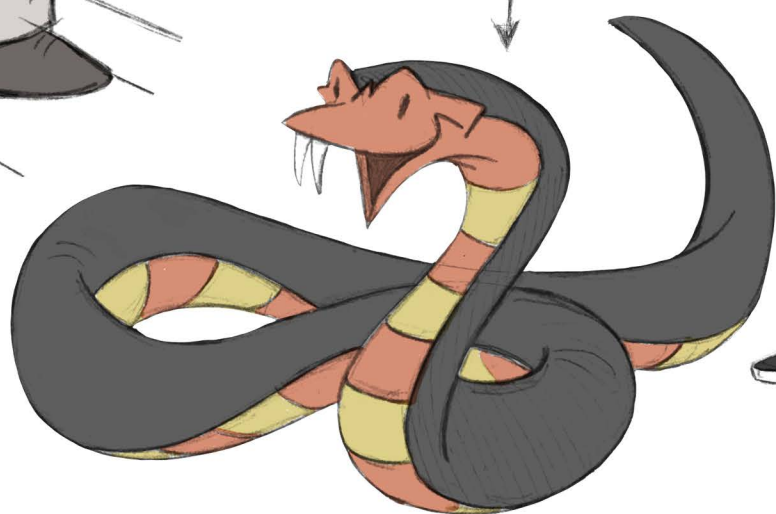
05_07: COLOR

KEEP CHARACTER PERSONALITY IN MIND WHEN APPLYING COLOR: THIS FALSTAFF TYPE IS JOLLY AND EARTHY, SO WARM AND EARTHY COLORS ARE BETTER THAN PALE SKIN AND DARK BLUES.

DON'T COMMIT TOO SOON TO ONE COLOR MODEL. IT'S NEVER BEEN EASIER TO CREATE VARIATIONS, SO TAKE SOME TIME AND GET THE ONE YOU LIKE BEST.



COLOR MODELS CAN CREATE PROBLEMS FOR ANIMATION. E.G. THE ALTERNATING COLOR OF THE SNAKE'S STRIPES WILL REQUIRE EXTRA ATTENTION TO PREVENT IT FROM SLIDING AROUND.



A CHARACTER WITH A SINGLE BODY COLOR CREATES PROBLEMS WITH MANY POSES AND SILHOUETTES.

WHEN ALL ONE COLOR, THE HAND ON HIS HIP CAN'T BE SEEN.

SOLUTION 1: USE A WHITE INK LINE.

SOLUTION 2: USE A COLOR SEPARATION TO CREATE A NEW COLOR AREA.



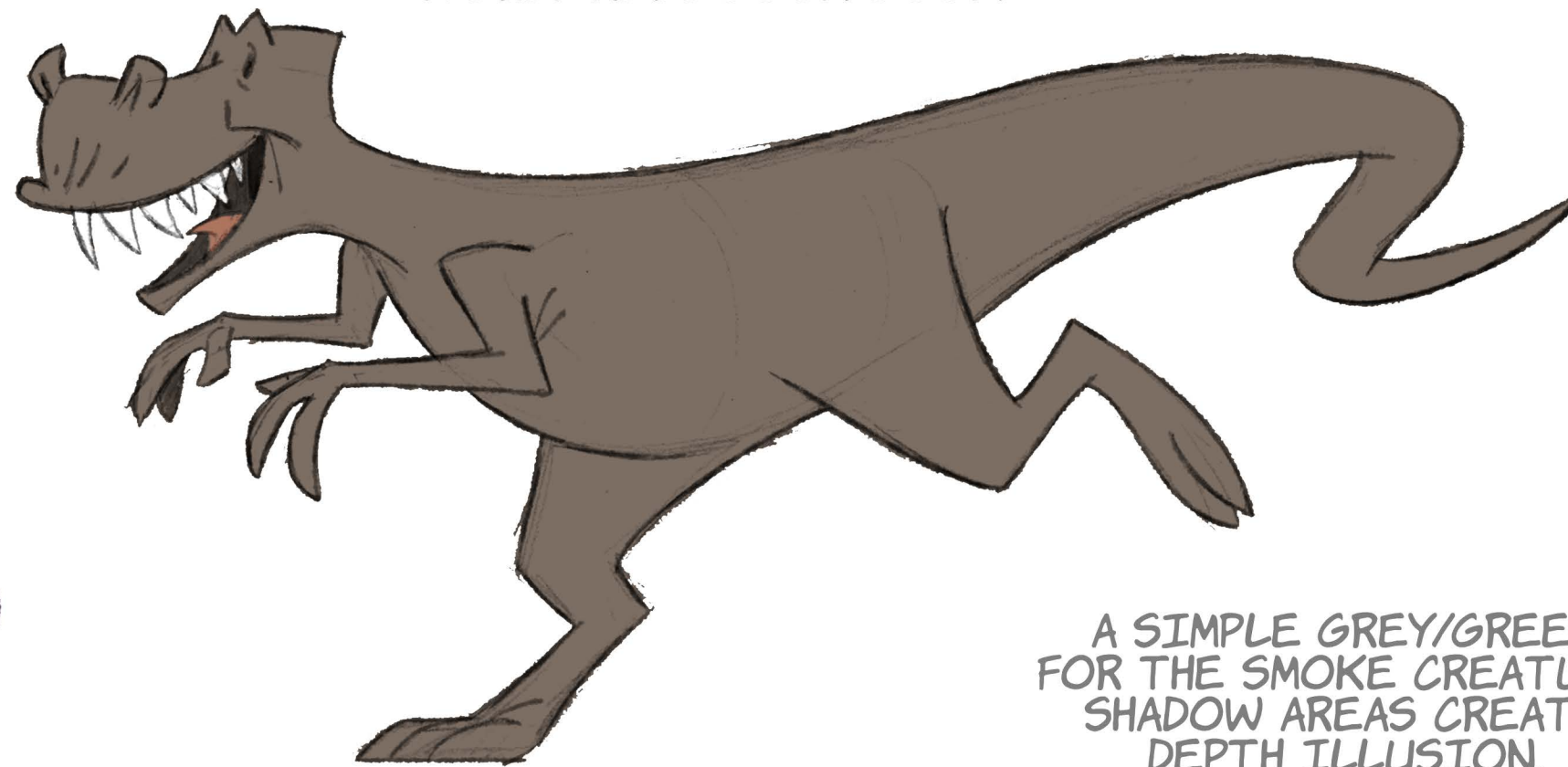
05_07: COLOR

WHEN WORKING WITH EXOTIC CREATURES, YOU HAVE AN OPPORTUNITY TO USE A WIDER PALETTE.

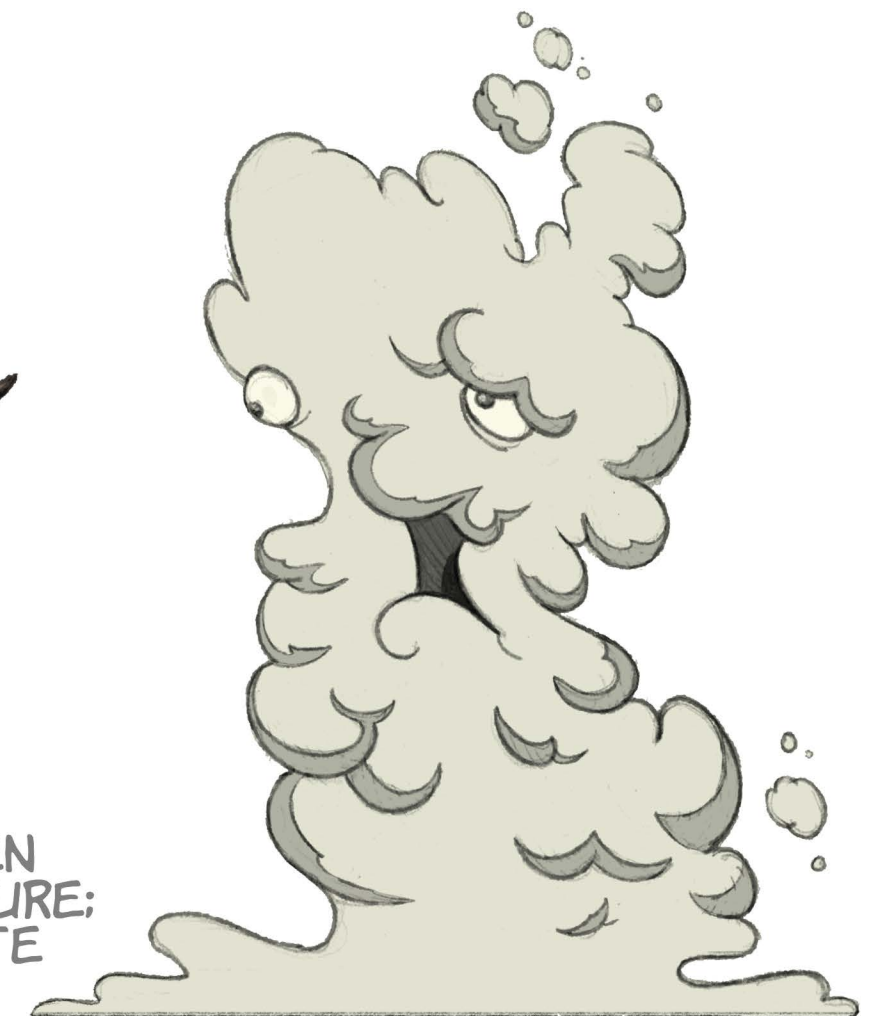
BUT YOU DON'T HAVE TO HYPERSATURATE THE PAlettes EITHER!



A MUTED CAMOFLAGE BROWN FOR THE DINOSAUR; GREEN WOULD ALSO LOOK GOOD.

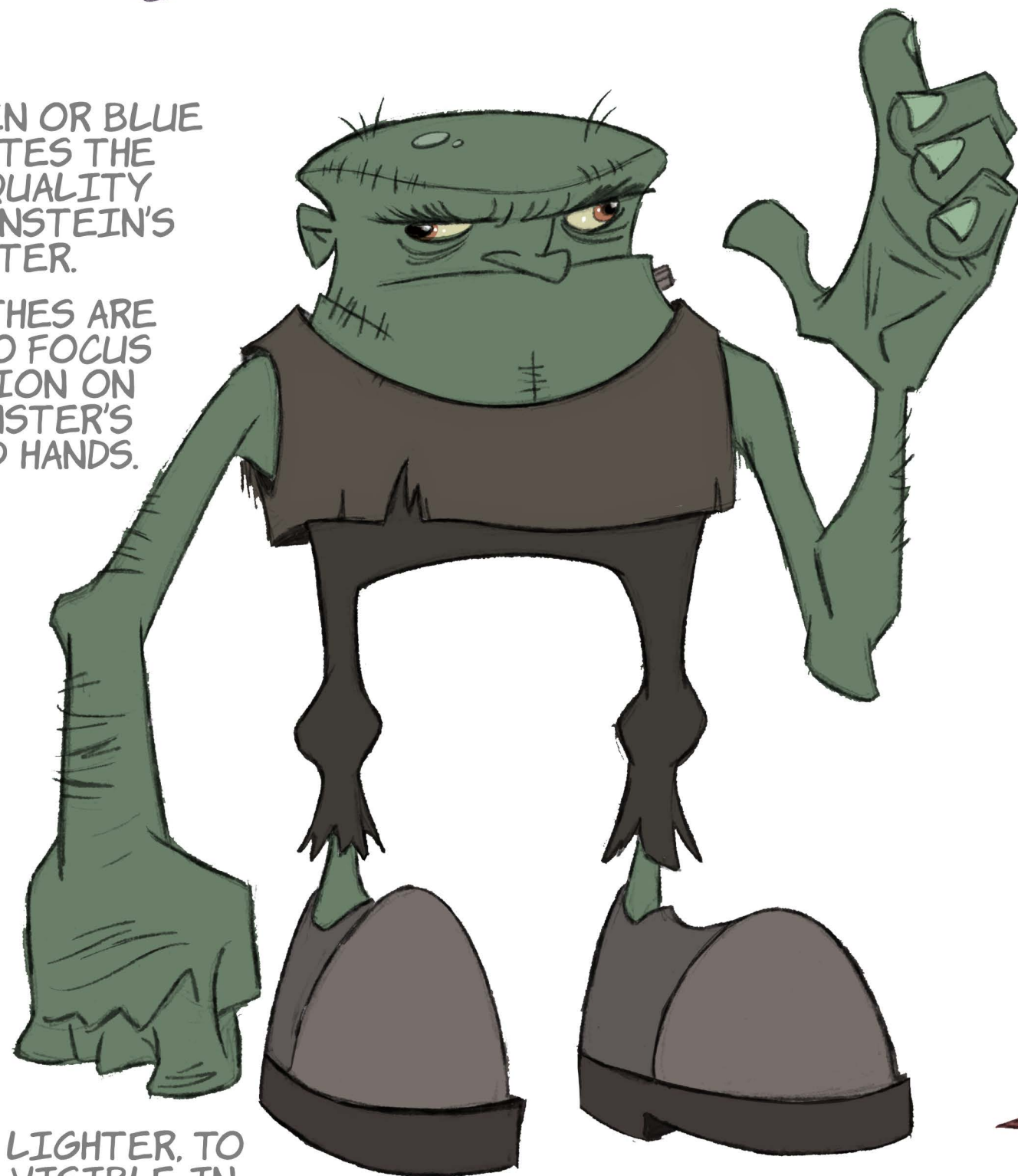


A SIMPLE GREY/GREEN FOR THE SMOKE CREATURE; SHADOW AREAS CREATE DEPTH ILLUSION.



A PALE GREEN OR BLUE ACCENTUATES THE CORPSE QUALITY OF FRANKENSTEIN'S MONSTER.

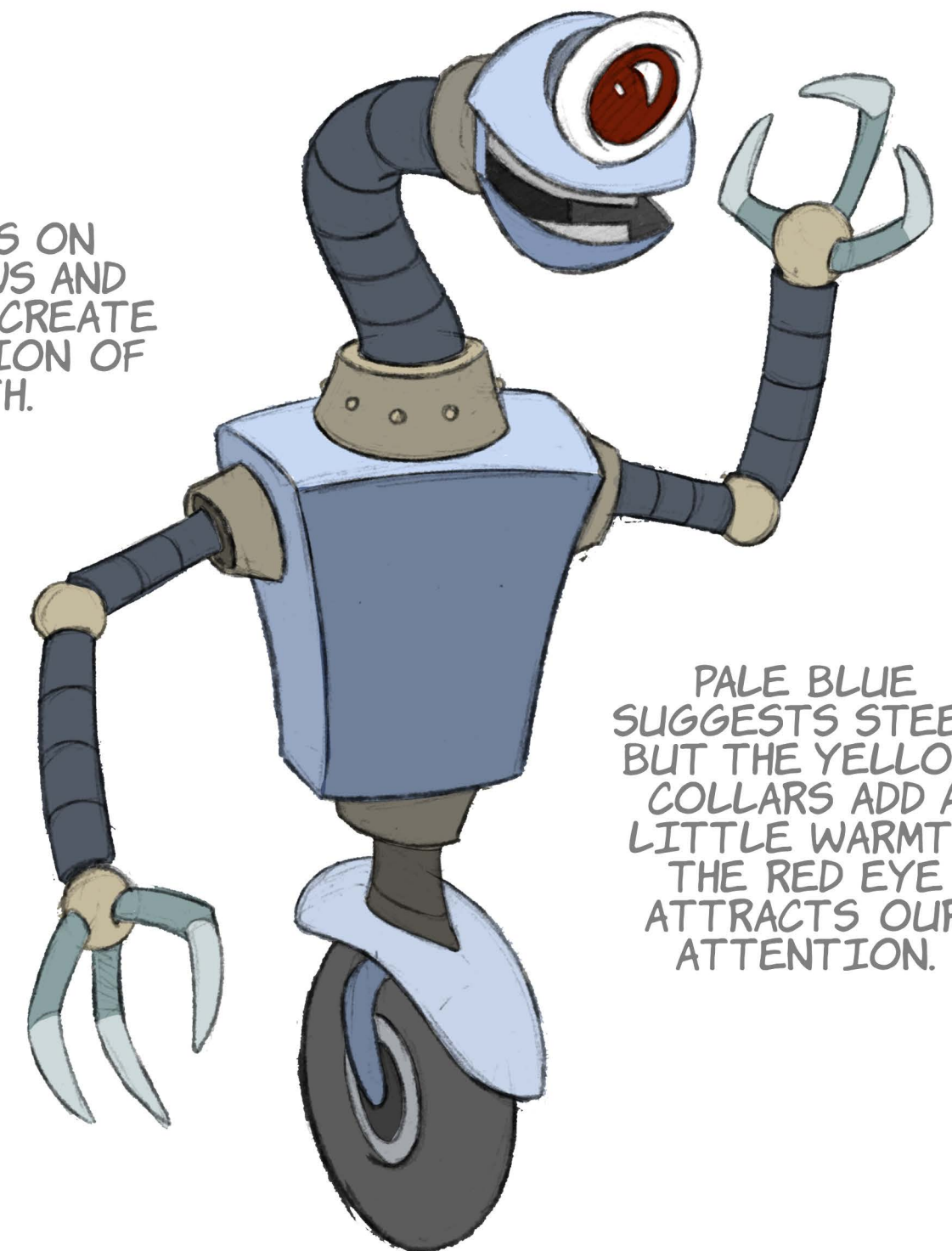
THE CLOTHES ARE MUTED, TO FOCUS ATTENTION ON THE MONSTER'S FACE AND HANDS.



SHOES ARE LIGHTER, TO KEEP THEM VISIBLE IN NIGHT SHOTS.



HILITES ON EYEBROWS AND MUSTACHE CREATE AN ILLUSION OF DEPTH.



PALE BLUE SUGGESTS STEEL, BUT THE YELLOW COLLARS ADD A LITTLE WARMTH. THE RED EYE ATTRACTS OUR ATTENTION.

05_07: COLOR

THINK ABOUT YOUR CHARACTER AND THE BEST WAY TO USE COLOR TO CONVEY ITS PERSONALITY.

THIS WAS MEANT TO BE A BURNED-OUT SIXTIES MAN; THE HIPPIE WITH A HEART OF GOLD.

THE PALE PURPLE MIGHT SUGGEST A PERSON WHO IS UNCONVENTIONAL, AS DOES THE YELLOW HEADBAND, WHICH IS A NICE COLOR CONTRAST WITH THE SHIRT.

THE ONLY GREEN IN THE IMAGE IS THE FLOWER; THIS HELPS TO CONVEY THE EYE'S FOCUS ON THE PLANT.

THIS COULD HAVE BEEN ACCENTUATED FURTHER BY COLORING THE FLOWER A BRIGHTER COLOR, OR RED.

