

IT'S ALL ABOUT THE BOW!

*THE BEST STRATEGIES FOR DEVELOPING A
BEAUTIFUL TONE IN BEGINNERS AND BEYOND*

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D'ADDARIO ORCHESTRAL
EASTMAN STRINGED INSTRUMENTS



*with the
Alpharetta High School
Symphony Strings*

WHAT CAME FIRST, THE BOW OR THE INSTRUMENT?

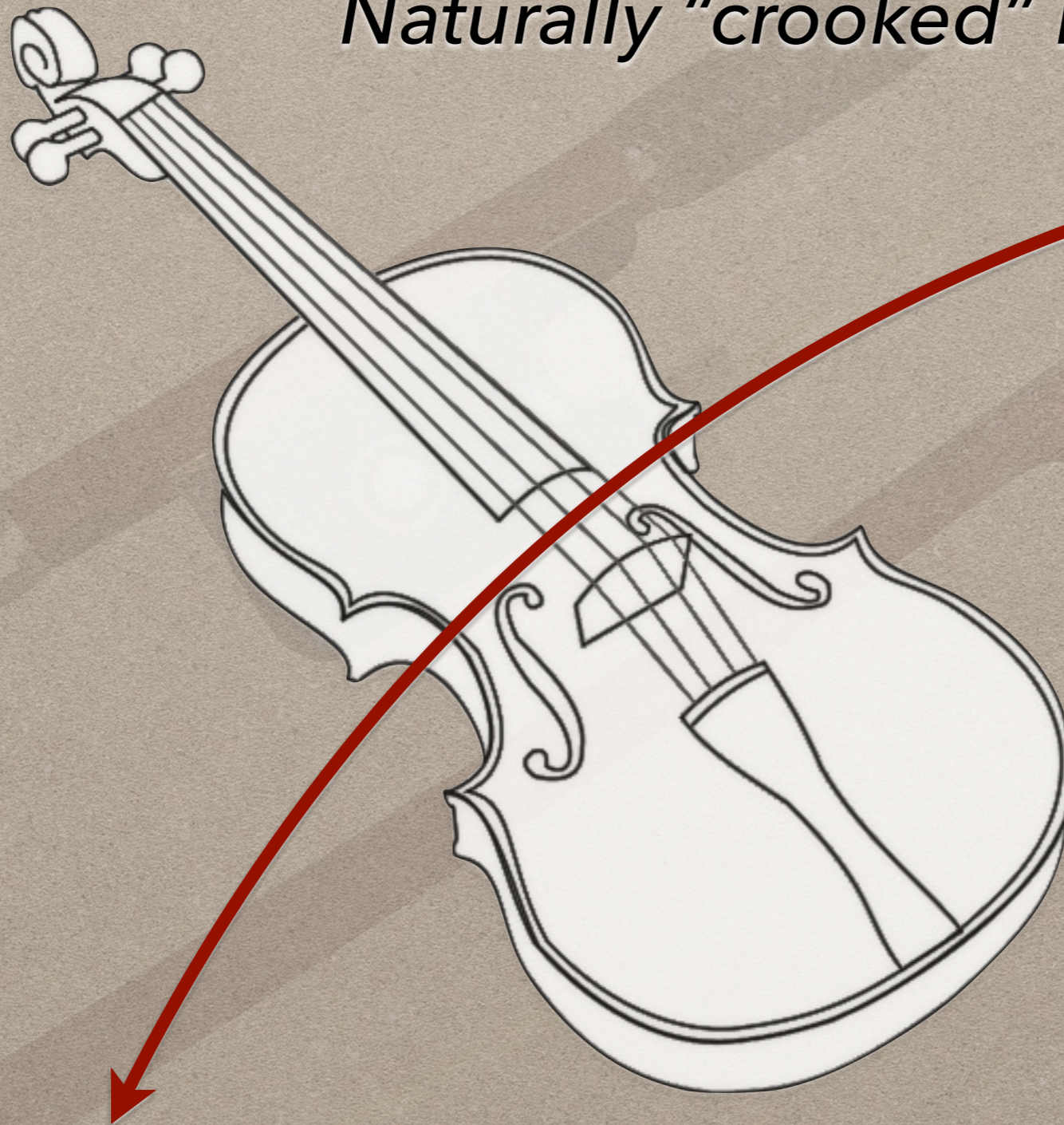
- The bow is just as big a part of the instrument as the violin, viola, cello, or bass!
- The bow on the string initiates the sound!

WHY IS THIS SO DIFFICULT?

- It's a lifetime learning process!
- Defies most natural joint movements
- Requirements:
 - Exceptional coordination among shoulder, upper arm, lower arm, wrist, and fingers
 - Dexterity and flexibility of fingers
 - Fine muscle control

WHAT OUR BODY WANTS TO DO

Naturally "crooked" bowing!



Right
Shoulder
Pivot

WHAT WE THINK WE MUST DO

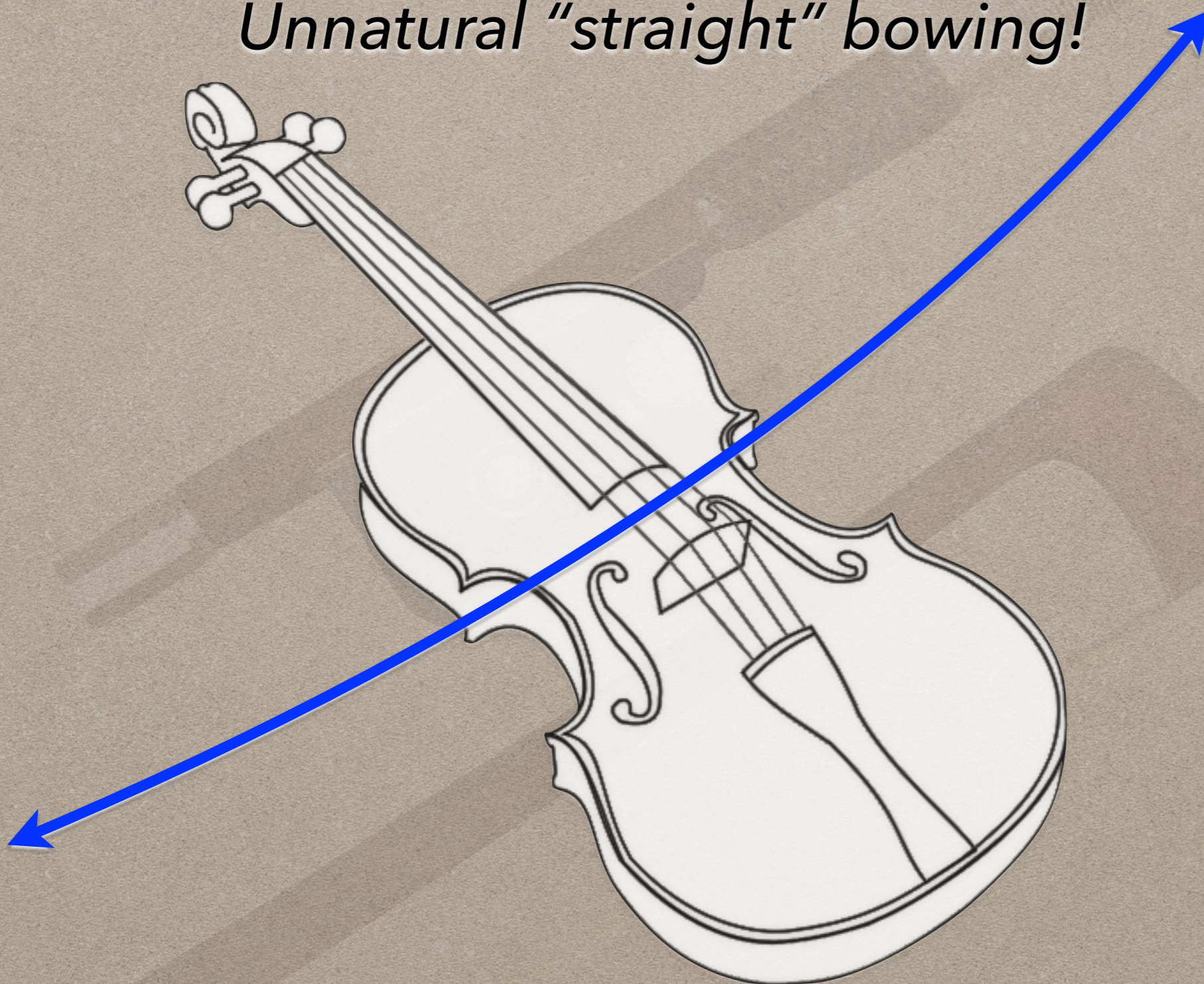
"Straight" bowing...



Right
Shoulder
Pivot

WHAT WE MUST ACTUALLY DO

Unnatural "straight" bowing!



Right
Shoulder
Pivot

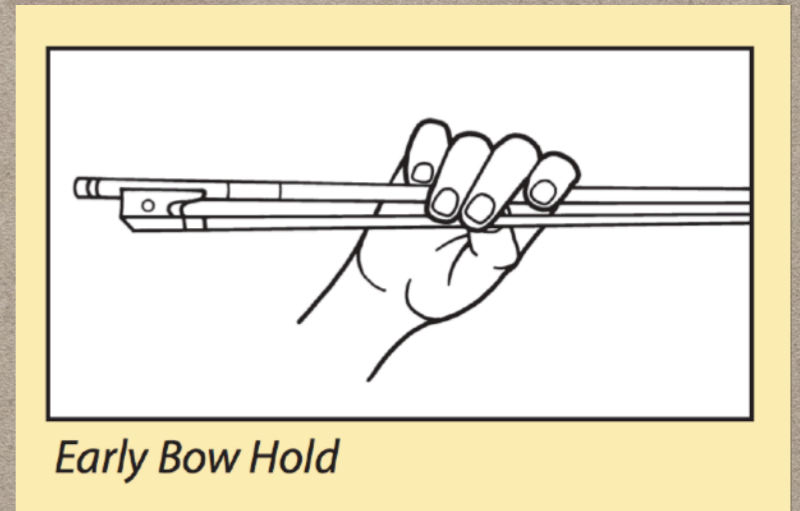
PREREQUISITES

- Good body posture
- Good instrument position
 - "How many times are you going to learn the proper bowing angles?"
- We must **ISOLATE** the teaching of the right hand!

THE FIRST STROKES

WHAT ARE THE BENEFITS/DRAWBACKS OF EACH?

- Short bow approach
 - e.g. *Suzuki* ("Mississippi Hot Dog")
- Partial bow approach or "Early Bow Hold"
 - e.g. *Essential Elements*
- Full bow approach
 - e.g. *String Builder* (whole notes)



PERSONAL PHILOSOPHY

- I have found that it is easier to start with larger bows and shorten the length later
- Starting with small strokes and sound good initially, but can often be difficult to break the "habit"
- BUT.... You need to find out what works for you and your own teaching situation.

UNDERSTANDING

- Students **MUST** have a conceptual understanding of how the body works to produce a proper bow stroke
- "What techniques are required to produced a the desired sound?"

ITEMS OFTEN OVERLOOKED...

- Bow hair tension
- Bow hair condition
- Bow hair quantity
- Appropriate amount of rosin
- A quality bow can make a HUGE difference in one's sound and ease of playing

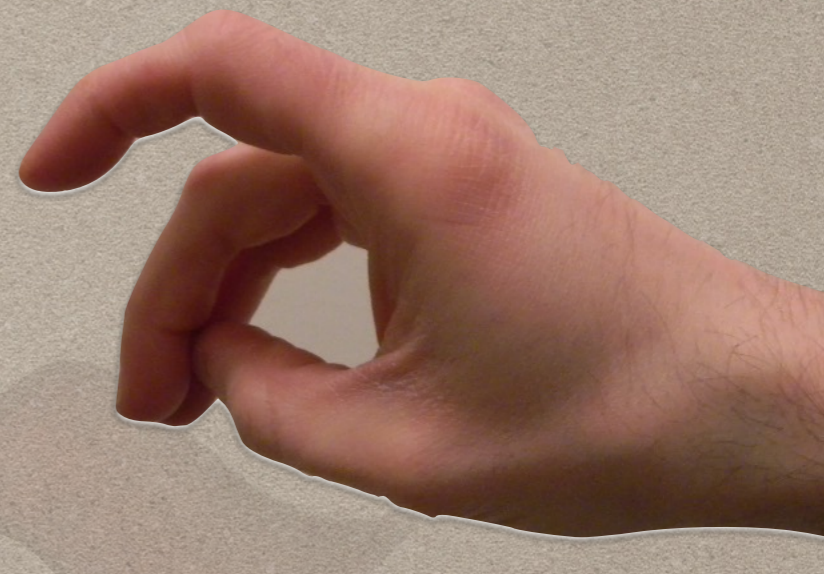
THE "BOW HOLD"

- Not a "grip"
- "Bow Balance" rather than bow "hold" or "grip" (Butz, 2015)
- Never fixed or rigid!
- A good bow hold is essential first step in producing a quality tone

TWO BOW HOLDS??

- The "frog bow hold"
- The "tip bow hold"
- The bow hold is under continuous change as it is moved from frog to tip and back.

BOW HAND SHAPE STRATEGIES

- The flop hand
 - The bunny, the llama, etc.
 - The "Chop & Flop"
 - The snake (*video next*)
 - "Baby's hand"
 - "Each finger goes here..."
 - Bow "seat belts"
- 
- **What are your favorites??**

"SLITHER" BOW HOLD STRATEGY

WWW.ORCHESTRATEACHER.NET

MRORCHESTRADIRECTOR ON YOUTUBE

BOW "SEAT BELTS"



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PRE-BOW HOLD

- Hand shapers (from large to small)
 - 1/2 inch PVC tube
 - Shapes fingers by exaggerating the curve
 - Pencil
 - convenient, closer to bow size
 - Drinking straw (cheap, thin ones!)
 - helps prevent squeezing
- Mini Bows (don't ever throw away a broken bow!)

HAVE STUDENTS MEMORIZE THE CHECKPOINTS

- All fingers are curved and naturally spaced
- All fingers are relaxed
- The thumb is bumpy
- The pinky is on top (violin/viola)
- The ring finger covers the eye

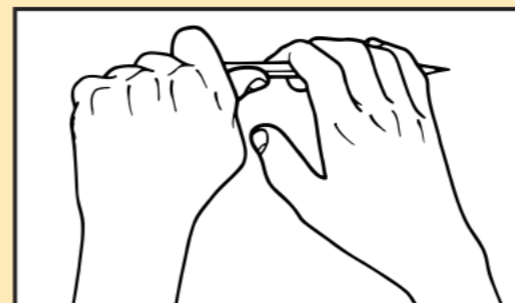
Essential Elements for Strings, Book 1

SHAPING THE RIGHT HAND

BOW BUILDER ONE

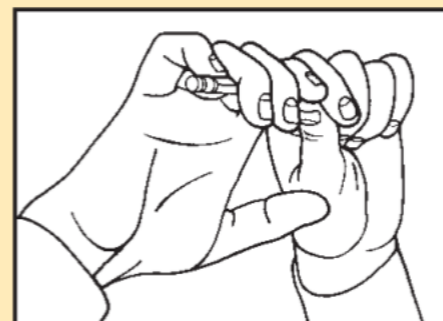
Pencil Hold

Step 1 Hold a pencil in your left hand at eye level.

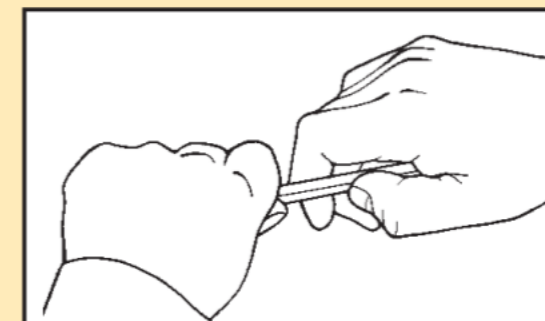


Step 2 Hang your right fingers over the top of the pencil, as shown.

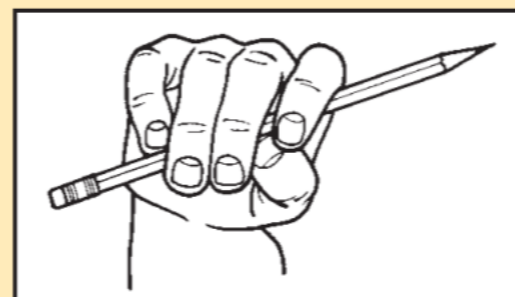
Step 3 Place your right 4th finger on top of the pencil.



Step 4 Touch the tip of your right thumb to the pencil just opposite your 2nd finger. The curve of your thumb will form an oval with the finger.



Step 5 Lean your right hand so the first finger rests on top of the pencil between the 1st and 2nd joints. Keep your fingers relaxed. Remove your left hand from the pencil. Practice shaping your hand on the pencil until it feels natural to you.



Practice BOW BUILDER ONE daily.

A NOTE ABOUT PRONATION

- **Pronation** is the slant of the fingers on the bow
- Prominent in violin/viola bow hold
- When setting up the violin/viola bow, always angle the tool/bow at a 45 degree angle to automatically build in the pronation.
- Traditional methods of setting up bow hold only reinforce supination (the wrong kind of slant)

#BOWHOLDTHUMBPROBLEMS

- If the thumb is not bent, the rest of the fingers will usually not bend!
- Bumpy thumbs
- "Alpharetta A" Thumb
- Texting thumbs



* *No Banana Thumbs*

* *No Hitchhiker thumbs - illegal in every state!*



Essential Elements for Strings, Book 1

BOW BUILDER TWO

Pencil Hold Exercises

I'm Outta Here

Wave good-bye while keeping your wrist relaxed.

Thumb Flexers

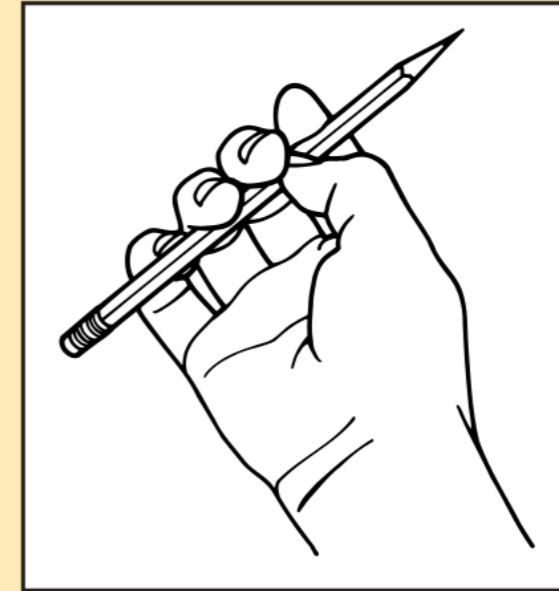
Flex your thumb in and out.

Finger Taps

Tap your first finger. Then tap your fourth finger.

Knuckle Turnovers

Turn your hand over and be sure your thumb knuckle is bent, as shown.



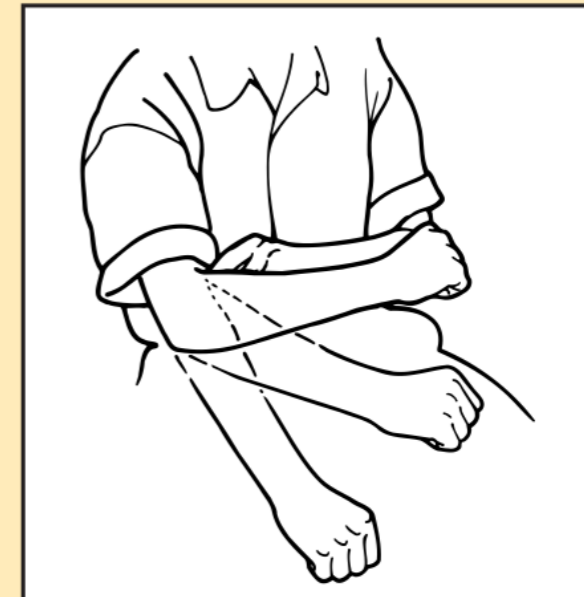
Knuckle Turnovers

BOW BUILDER THREE

Bowing Motions

Swingin' Out

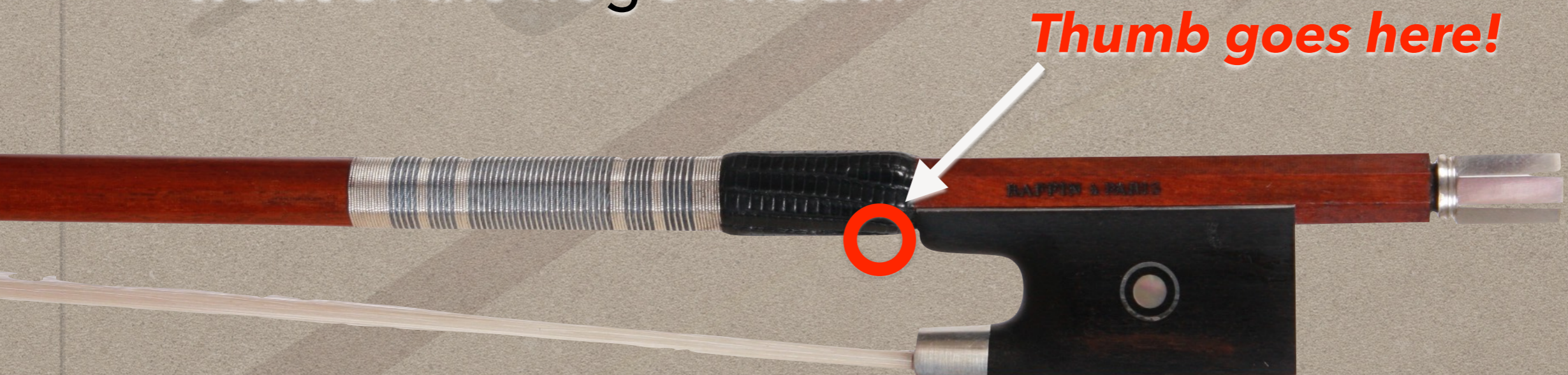
Put one finger inside your right elbow and swing your arm, as shown.



Swingin' Out

WHERE DOES THE THUMB BELONG?

- NOT in the frog's mouth!!
- Important that you continuously remind students
- The tip of the thumb belongs on the stick **just in front** of the frog's "mouth"



BOW HAND EXERCISES

"TURN THE MUSH INTO MUSCLE"

- Get students comfortable holding bow
- Build strength of fingers
- Improve finger dexterity
- The bow must feel like an extension of the arm and body
- Setting them to music makes exercises more fun!

1. "GET SET" AND "PINKY PUSH UPS"

- Remind students of their checkpoints
- Sets up the hand
- Helps build strength and independence
- Music: "Gonna Fly Now" - Theme from "Rocky"

2. "THE WAVE"

- 1. Lift each individual finger to create "the wave," like in a stadium
- 2. Wave "goodbye" with the wrist or simulate the throttle grip of a motor cycle.
- (Optional: Have students hold the bow with both hands.)
- Music: "Na Na Hey Hey, Kiss Him Goodbye"

3. "WINDSHIELD WIPERS"

- Twist wrist and forearm ONLY.
- Elbow should not move.
- Double check for bent thumb each time
- (Don't hit your neighbors!)
- Music: "Singing in the Rain"

4. "SPIDER CRAWLS"

- Keep proper hand shape all the way to the top and back down.
- Very good exercise for strengthening.
- Move each finger individually.
- No cheating!

- Music: Original "Spiderman" Theme Song

5. "ROCKET LAUNCH"

- Students should stand up
- Align bow vertically with center of body.
- Move up and down slowly, keeping bow vertical and parallel with body
- Music: Strauss: *Also Sprach Zarathustra*, Op. 30: *Prelude*

6. "LOCOMOTION"

- Hold bow in front, horizontally
- Move back and forth, keeping parallel to ground, and as if on a train track.
- Music: "Locomotion"

7. "SHORT FINGERS, TALL FINGERS"

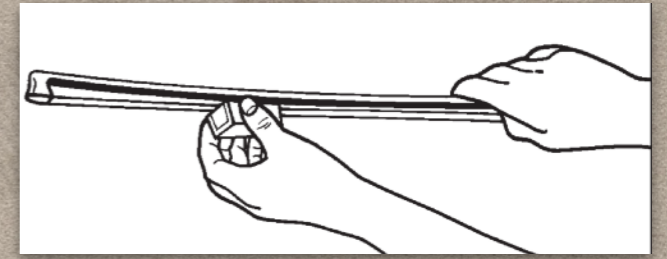
- Start with a "frog" bow hold. Let fingers drop and lengthen.
- Essentially this is the Collé stroke
- Music: *"Soul Bossa Nova"* from *Austin Powers*

WHAT ABOUT BEGINNERS HOLDING NEAR THE BALANCE POINT?

- Can be effective in training weak fingers
- Allows for a “lighter” bow and easier control
- **Possible Drawbacks:**
 - Students may be afraid to touch the bow hair
 - Students sometimes don't want to leave it and hold bow near frog



DÉTACHÉ STRATEGIES



- PVC Tubes
- Straws in F holes
- "Pick a point"
- Laser pointer bows
- Buddy bowing
- Paint brushes
- Hair tie or bracelet tug
- "Lift, Set, Settle"
- Dowel rod bowing
- Rosin bowing
- "Swinging Out"
- Up against the wall
- Shadow Bowing

What are your favorites??

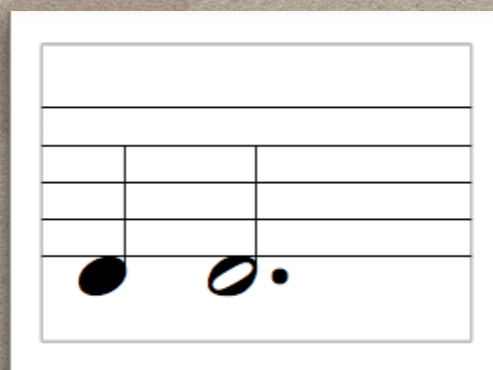
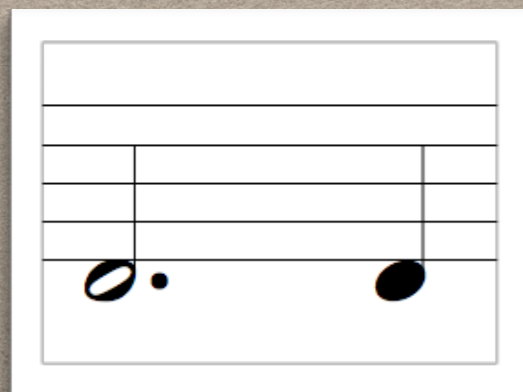
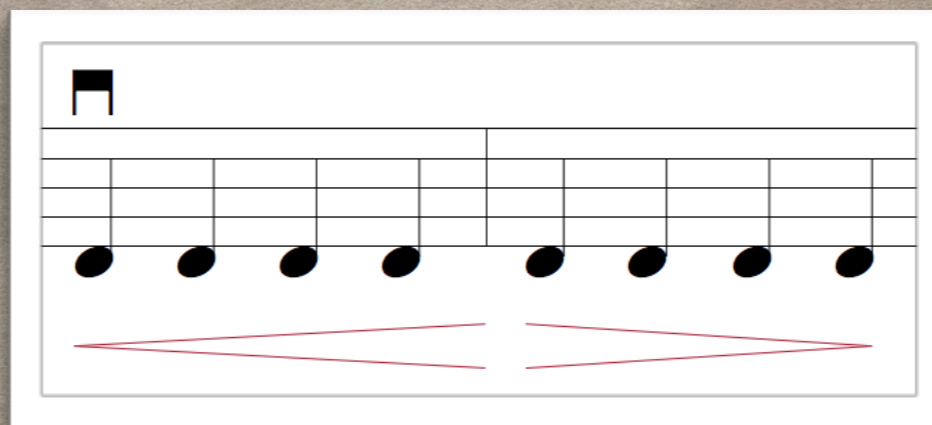
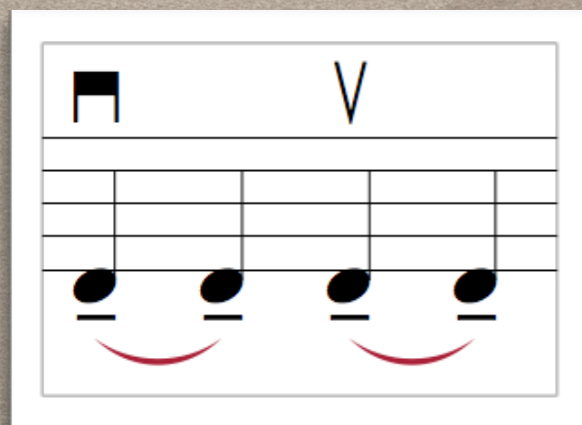
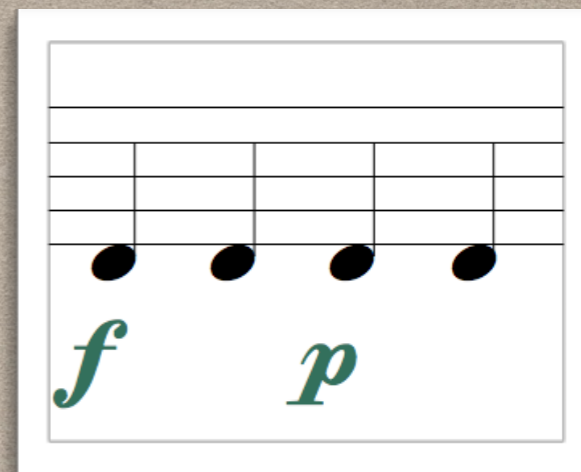
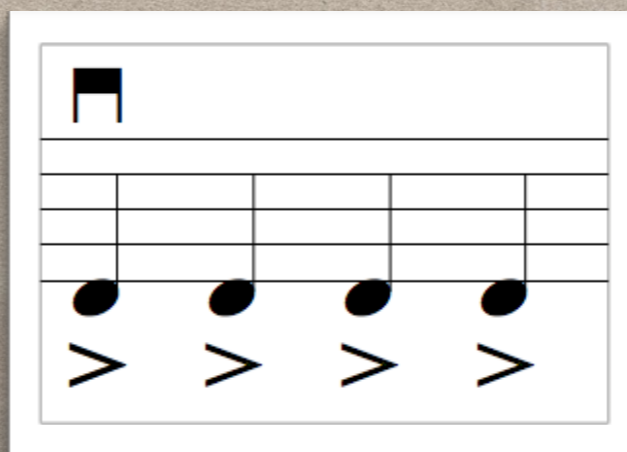
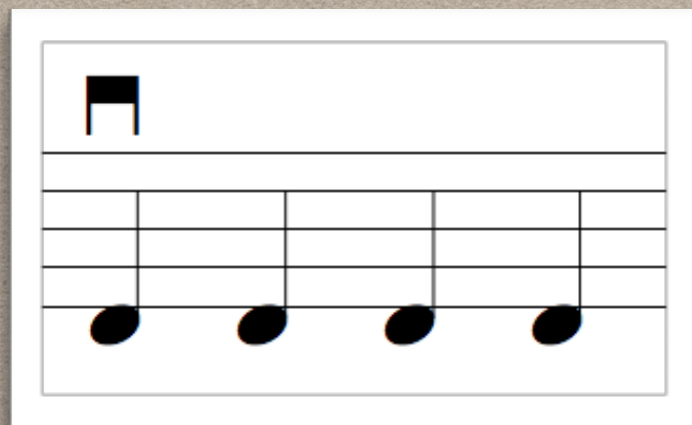
CELLO DÉTACHÉ IN FOUR EASY STEPS!

- To start: Elbow starts relaxed and near the side of the body,
- 1. **OUT** - elbow comes out, away from the body, to initiate the stroke
- 2. **OPEN** - elbow joint opens, extending bow to tip
- 3. **CLOSE** - elbow joint closes
- 4. **IN** - elbow comes back in toward the body and is completely at rest

START EACH CLASS WITH "OPENS"

- Isolate the right hand!!
- 4-8 full strokes on each open string
- Order: C, G, D, A, E, E, A, D, G, C
- Demand quality!! Students must focus on contact points.
- Allows teacher to move about class to assist students, assess, etc.
- Students should remove left hand from neck of instrument
- Create variations by altering tempo, adding dynamics, changing articulations, etc.
- Can also be used to enhance posture and confirm tuning

"OPENS" EXAMPLES



So many possibilities!

TECHNIQUES FOR ADVANCING STUDENTS

- **Developing bow control**
 - "Resistance Training" - pinch the bow gently, forcing students to feel resistance
 - "Endurance test" - see how long students can hold a note and still keep a strong tone
- Great for beautifying those slow pieces!

TECHNIQUES FOR ADVANCING STUDENTS

- **Developing familiarity with parts of the bow**
 - Play "follow me"
 - Devise warm-ups that utilize the desired area of the bow
 - Write out the "bow mapping" for rhythms/exercises!
 - Mark bow in different spots with finger tape or stickers
- Have a 1/2 size violin bow or 1/4 size cello/bass bow handy to force students to play in the lower half

"BOW MAPPING"

WB = whole bow

LH = lower half

UH = upper half

- Forces students to think about the speed and amount of bow they will be using.

A musical staff in 4/4 time with a treble clef. The staff contains two measures. The first measure has a square bowing symbol above the staff. The second measure has a 'V' symbol above the staff. The notes are: quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter. Below the staff, the bowing techniques are labeled in red: WB, UH, WB, WB, UH, WB, LH, WB.

A musical staff in 3/4 time with a treble clef. The staff contains two measures. The first measure has a square bowing symbol above the staff. The second measure has a 'V' symbol above the staff. The notes are: quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter. Below the staff, the bowing techniques are labeled in red: LH, WB, UH, WB.

"BOW MAPPING"

The first system of musical notation is in 4/4 time. It features a treble clef and a key signature of one sharp (F#). The melody begins with a quarter note on G4, followed by a quarter rest. Above the staff, a square bowing symbol is placed over the first quarter note. The melody continues with a quarter note on A4, a quarter note on B4, a quarter note on C5, and a quarter note on B4. A blue bracket labeled '3' spans these three notes. The system concludes with a quarter note on A4 and a quarter rest.

The second system of musical notation is in 3/4 time. It features a treble clef and a key signature of one sharp (F#). The melody begins with a quarter note on G4, followed by a quarter rest. Above the staff, a square bowing symbol is placed over the first quarter note. The melody continues with a quarter note on A4, a quarter note on B4, and a quarter note on C5. Above the staff, a 'V' bowing symbol is placed over the A4 note, and square bowing symbols are placed over the B4 and C5 notes. The system concludes with a quarter note on B4, a quarter note on A4, and a quarter note on G4. Above the staff, a 'V' bowing symbol is placed over the B4 note, and square bowing symbols are placed over the A4 and G4 notes.

The third system of musical notation is in 4/4 time. It features a treble clef and a key signature of one sharp (F#). The melody begins with a quarter note on G4, followed by a quarter rest. Above the staff, a square bowing symbol is placed over the first quarter note. The melody continues with a quarter note on A4, a quarter note on B4, and a quarter note on C5. Above the staff, a 'V' bowing symbol is placed over the A4 note, and another 'V' bowing symbol is placed over the B4 note. The melody then continues with a quarter note on B4, a quarter note on A4, and a quarter note on G4. Above the staff, a '3' is placed below the B4 note, and a blue bracket labeled '3' spans the B4, A4, and G4 notes. The system concludes with a quarter note on F#4, a quarter note on G4, a quarter note on A4, and a quarter note on B4. Above the staff, a '3' is placed below the G4 note, and a blue bracket labeled '3' spans the G4, A4, and B4 notes. The system ends with a comma.

Dyson: *Kingsbridge March, Violin I Excerpt*

"BOW MAPPING"

The image displays a musical score for the piece "Down By The Salley Gardens," arranged by Jim Palmer. The score is presented in a system of six staves, including two treble clefs, two bass clefs, and a double bass clef. The key signature is D major (two sharps), and the time signature is 6/8. The score is annotated with dynamic markings and bowing techniques:

- Violin (V):** The top two staves are marked with *mp* (mezzo-piano) at the beginning and *mf* (mezzo-forte) in the middle, with *mp* again at the end. The notes are connected by slurs, and there are wedge-shaped annotations indicating bowing dynamics.
- Double Bass:** The bottom-most staff is marked with *p* (piano) at the beginning and *mf* in the middle, with *p* at the end. It features a triplet of eighth notes in the second measure and a group of four notes in the fourth measure.
- Other Bass Staves:** The two middle bass staves also show *p* and *mf* markings, with slurs and wedge-shaped annotations.

Traditional/Arr. Jim Palmer: *Down By The Salley Gardens*

COLLÉ

- Finger and wrist flexibility are of the utmost importance when considering a smooth and consistent bow stroke (Dakon & Giray, 2015)
- Collé is a technique that facilitates smooth bow direction changes, spiccato, and more.
- Bow stroke that essentially uses only the fingers
- Requires flexible fingers - hold the bow loosely
- Stiff, rigid fingers is one the most common problems in bow technique

COLLÉ STRATEGIES

- "Short fingers, tall fingers" (Gillespie)
- "The claw!"
- "Water flick"
- Set at frog, set at tip

PERPENDICULAR OR NO?

- Works for perpendicular bows at the beginning
- With advancing students, work toward "Smiley Face Bows"
- Reduces sound gaps during direction changes
- Helps keep a constant the sound at frog and tip



**WHO WANTS THEIR STUDENTS
TO HAVE A BEAUTIFUL SOUND?**

MUST LEARN BALANCE!!

- Key is to appropriately **balance** each of the bowing variables
- Demonstrate what happens when variables are unbalanced
 - Ex. 1: Too much weight, not enough speed
 - Ex. 2: Too little weight, too much speed

WASP²

- **W**eight on the bow
- **A**ngle of the bow hair
- **S**peed of the bow
- **P**lacement
 - 1. On the string
 - 2. On the bow



WEIGHT

- Violin/Viola - first finger adds "weight" and provides leverage
- Cello/Bass - bow should be sunk into the string by the weight of the arm.
- Have students add weight to the bow so the stick touches the hair.

Weight

*the amount of pressure you put on the bow

*use first finger to push the stick into the bow hair - “bite” the string

*measured with “pounds”

100 lbs.

fff

ff

f

mf

50 lbs.

mp

p

pp

0 lbs.

ppp



LEVERAGE

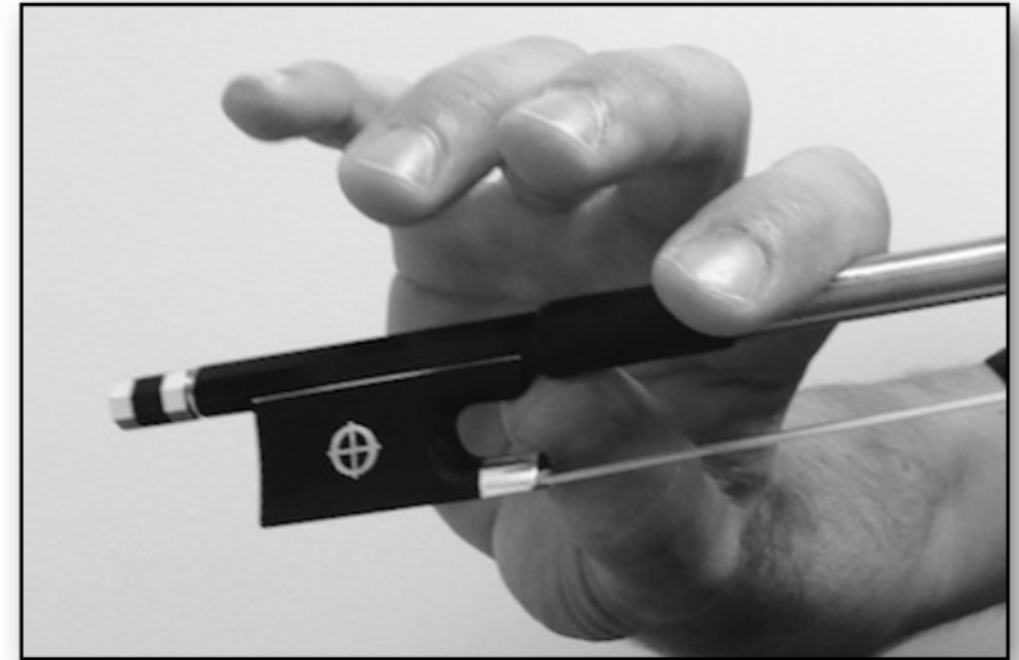
- Application of first finger weight
- More weight must be applied as bow is drawn toward the tip
- Less weight as bow is drawn near the frog
- **Goal:** Keep an even tone, regardless of where you play in the bow!

Application of first finger leverage on violin/viola bow stroke

Goal: Maintain an even tone across the entire bow stroke.

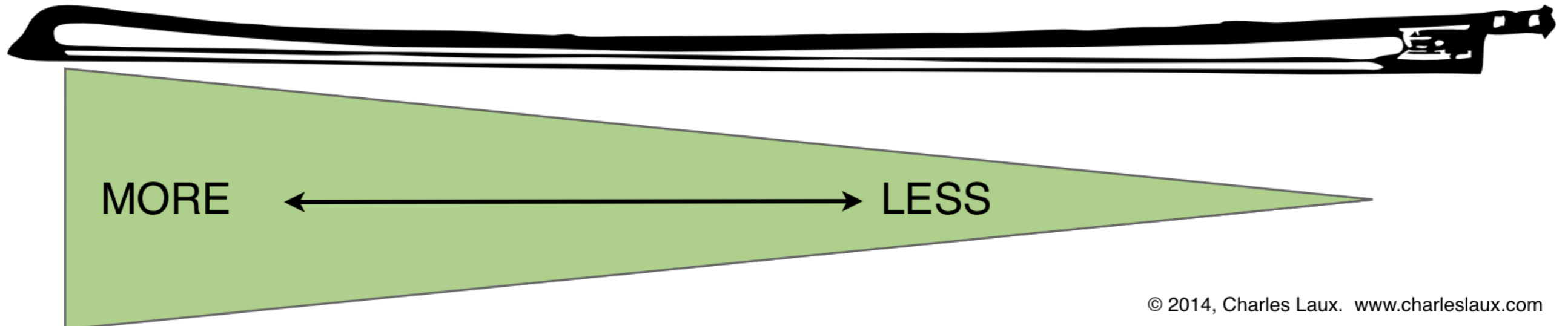


Violin/viola bow hold, viewed from front (above) and underneath (right). Notice how the fingers curve and the thumb bends outward.



A "lever" is created with the first finger and thumb.

The leverage allows the player to flex the stick to increase the pressure put on the hair. The "weight" is gradually added during the down bow stroke and released on the up bow. Along with keeping a constant bow speed, the alteration of the weight helps keep the tone even across the stroke.



ANGLE

- Angle of bow hair on the string
- Violin/Viola - Stick angles **away from** nose
- Cello/Bass - Stick angles **toward** nose
- Amounts:
 - Flat hair
 - 1/2 hair
 - 1/4 hair
 - 1 hair (exaggeration)

SPEED

- "Miles per hour" analogy
- Ratios (2:1, 3:1)
- "X" times as fast
- Having a good speed "vocabulary" is important
- Can't always assign a speed to a particular note!



Speed

* the speed of the bow

* measured in “miles per hour”

* the *longer* the note, the *slower* the bow stroke

* the *shorter* the note, the *smaller* the bow stroke



25 MPH

“Super Duper Slow Bow”



75 MPH

“Bow”



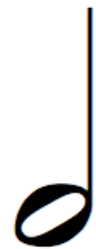
33 MPH

“Super Slow Bow”



100 MPH

“Run”



50 MPH

“Slow Bow”



125 MPH

“Sprint”

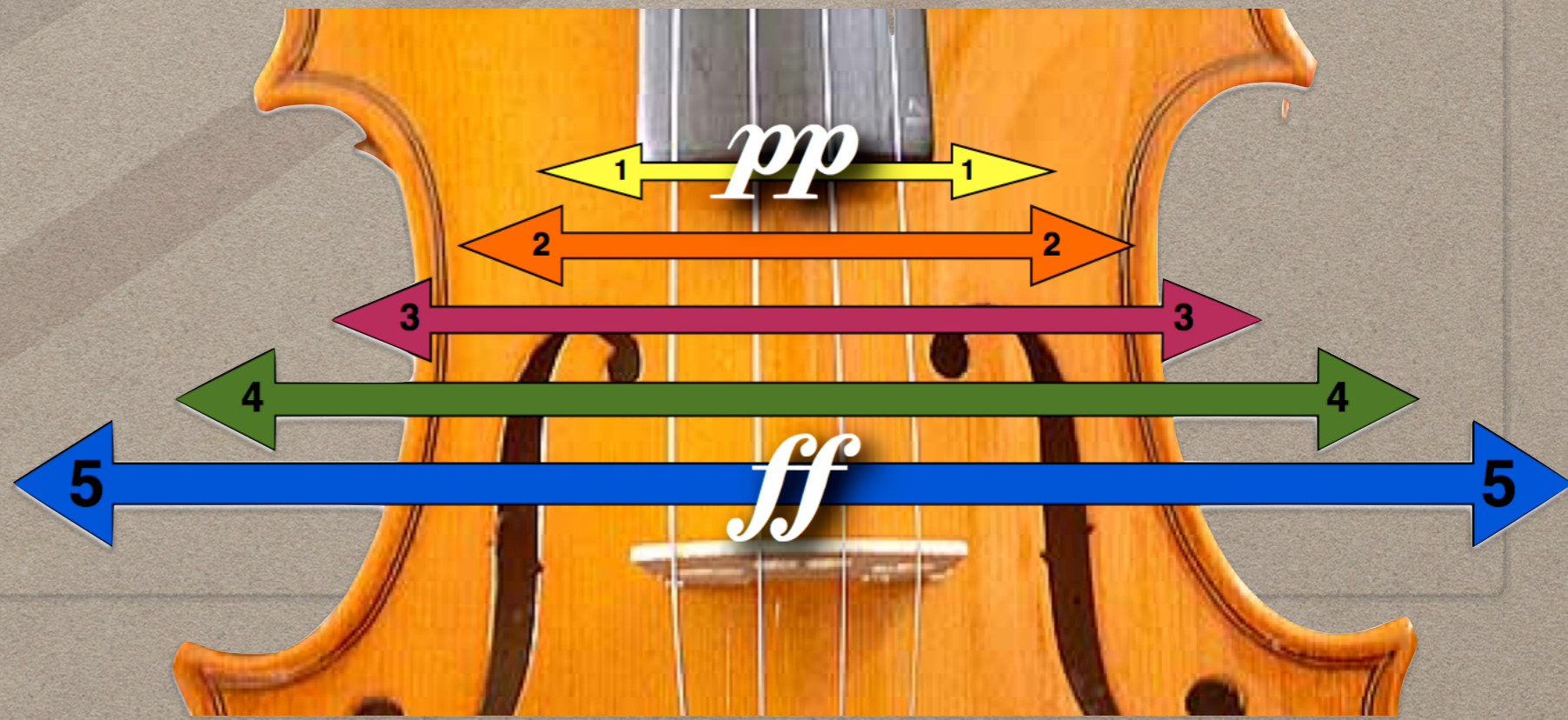
PLACEMENT ON THE STRING

- Bowing "lanes"
- Beginners = 3 lanes
 - near fingerboard, middle, and near bridge
- Goal = keep bow in same lane!
- Switch lanes to change sound



PLACEMENT ON THE STRING

- Advanced students = 5 lanes (upgraded highway)
 - over fingerboard, near fingerboard, middle, near bridge, next to bridge
- Goal = the ability to change lanes depending on desired effect

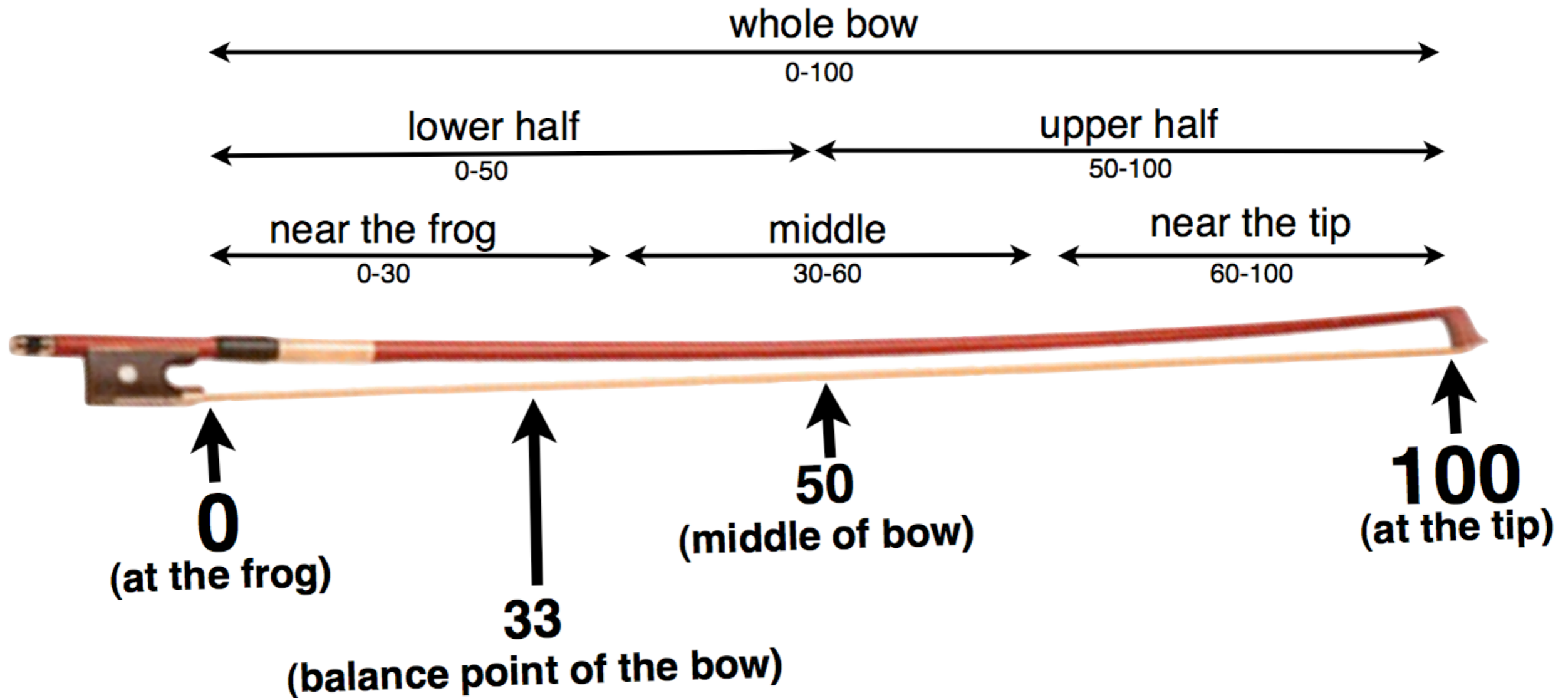


PLACEMENT ON THE BOW

- Zero to 100 analogy (number line)
- Bowing area - U.H., L.H., M.
- Balance point
- Place marker on the bow with fingerboard tape.
- Puts students/sections all in the same part of the bow

Area of the Bow

(the part of the bow used)



INTONATION

- We must remember that the bow effects intonation!
- Playing with too much weight with the bow near the fingerboard forces the pitch to go flat!
- A good tone will only help improve intonation

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SPECIAL THANKS!



Alpharetta High School Symphony Strings

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