

TEACHING FOUNDATIONS



“In playing the violin, three things must be particularly observed: first, to [hold] it in as free and unconstrained a manner as possible; secondly, to place the hand in the most favorable position for facilitating the motion of the fingers and attaining correctness of intonation; and, thirdly, so to place the fingers upon the strings that the tone produced may be full and clear.”

Bartolomeo Campagnoli (1751-1827)

All content in this manual is copyrighted. Please direct any questions to Dr. Dijana Ihas
dih@pacificu.edu

TEACHING FOUNDATIONS

The foundations of string playing encompass four essential skills that players must acquire before producing sound: posture/stance, instrument hold, left-hand setup, and bow hold.

Establishing these "healthy foundations" is crucial for preparing students to tackle advanced repertoire rather than merely introductory pieces. This involves ensuring naturalness and freedom of movement throughout the body right from the start of instruction. String players continuously work on establishing, maintaining, and refining these foundations throughout their musical journey.

This teaching manual includes explanations and exercises intended to teach foundations of string playing, drawing from a wide range of historical and modern teaching methods. These exercises are suitable for both individual lessons and group class settings.

Four foundations of playing techniques on bowed string instruments:

- Posture/stance (terminology applicable to upper string instruments) and body frame (terminology applicable to lower string instruments)
- Instrument hold
- Left-hand setup
- Bow hold

Teaching Posture/Stance

What to teach?

- Position of the feet in the “rest position”
- Taking a professional bow
- Position of the feet in the “playing position”
- Standing and sitting positions (for upper strings and double bass)
- Distribution of the body weight
- Neutral hips
- Mailable knees
- Upright yet naturally erected torso
- Relaxed shoulders
- Straight neck
- Head in natural position

- Lips relaxed and closed (or slightly open)
- Eyes open

“Good body balance is based on correct stance.” (Rolland)

Objectives:

- Position/stance that allows for free and unconstrained movements of both arms and the whole body
- Position/stance that is free of tensions

Pedagogy for teaching stance/posture and body framework

Shinichi Suzuki steps (applicable in teaching beginning strings classes):

Standing position:

- Rest position: Feet parallel and slightly apart (During the beginning stages of learning, Suzuki teachers usually use “Feet Charts.”)
- Taking a professional bow
 - Taking the bow chant “One Down Look at Your Toes”
- Playing position steps: “Butterfly Position” →take one step backward with the right foot→weight centered over the left foot, allowing the freedom of the right arm

Sitting position: Student sits more towards the right corner of the chair→left foot fully on the floor in front of the chair→right foot on the right side of the chair with ball of the foot on the floor and the heel off the floor→the weight is placed on the left foot→ right knee slopes downward towards the floor

Chant for Taking a Professional Bow (feet in “rest position”)

*ONE down look at your toes,
TWO up look at teacher’s nose!*

Paul Rolland steps (applicable in teaching beginning and intermediate strings classes):

Standing position:

- Rest position: Feet parallel and slightly apart
- Playing position steps: Feet in “V” position with the heels touching→take one small step forward with the left foot→ weight distributed between two feet/legs (when playing in the frog more on the right foot and when playing in the tip more on the left foot)
- Knees are soft/not locked (“marshmallow knees”)
 - To strengthen shoulders, back, and abdominal muscles, all of which play important role in establishing proper stance/posture Rolland uses “*Case Walk*” exercise.

Sitting position: Student sits well forward in the center part of the chair → both feet are in front of the chair but left foot is slightly forward → the weight is evenly distributed between the left- and right- foot and the player's bottom ("like a tripod") → the waist is flexible (movable) and it compensates for more passive role of the legs

Kató Havas steps (applicable in teaching intermediate and advanced strings classes):

Standing position:

- Rest position: Feet parallel and slightly apart
- Playing position: Feet "hips" apart → pelvis and hips slightly tilted inward → the weight placed on the imaginary "third leg" that is located between two legs and that connects the end of the spine to the floor/ground

Sitting position: Student sits well forward in the center part of the chair → both feet are in front of the chair → pelvis and hips slightly tilted inward → the weight is placed on an imaginary "third leg"

Teaching Instrument Hold

What to teach?

- Holding/balancing/supporting the instrument
- Placement of the instrument
- Position of the head
- Direction of the instrument (the angle formed by the instrument and the body of the performer)
- Tilt/inclination of the instrument
- Angle of rise of the violin
- Instrument hold exercises

"Fit the instrument to you, not yourself to the instrument."
(Fischer)

Objectives

- Basic principle that applies to all bowed string instruments is to bring the instrument to ourselves, rather than ourselves to the instrument.
- Support of the instrument (upper strings):
 - Lower support (collarbone & shoulder and the back of the instrument)
 - Side support (the point of contact of the neck and the instrument's side)
 - Upper support (the placing of the left side of the chin onto the chinrest)
 - Auxiliary support with the left hand
- Support of the instrument (lower strings):
 - Cello: The ground/floor and sternum
 - Double bass: The ground/floor and left hip and knee
- "Three forces" that require constant "negotiation" in order to achieve and maintain balanced instrument hold (upper strings):
 - Weight of the arm and bow pushes instrument down.
 - Left arm and hand pushes instrument up.

- Instrument “rests” into the neck (side support).
- Placement of the instrument and the direction of the scroll depends on player’s physique:
 - Shorter arms = instrument more on collarbone and instrument’s neck/scroll more towards right.
 - Longer arms=instrument more on the shoulder and instrument’s neck/scroll more towards left.
- Most pedagogues agree that the angle of rise/level of the instrument should be parallel to the floor (useful phrase: “flatter-the better”) OR even slightly raised. Slightly raised level facilitates the freedom of left hand and it allows for comfortable breathing.
- Three possible angles/inclinations of the instrument: (a) centered, (b) inclined to the right, and (c) inclined to the left (applicable to all string instruments)
- Important consideration for upper string instruments: Choosing the chinrest of sufficient height AND one that matches the shape of the jaw.

*Recommended brands for chinrests:
Marawetz, Berber, Guarneri*

- Important consideration for upper string instruments: Shoulder rest vs. no shoulder rest
- Important consideration for lower string instruments: Determining the right length of the endpin (by players height or by the length of the torso for cellos & by players height or by the length of the arms for double basses)

Pedagogy for teaching instrument hold

Shinichi Suzuki steps for teaching instrument hold (applicable for teaching young beginners and beginning string classes)

Two ways:

“Original Steps”

- Feet in “playing position”
- Violin under the left arm and bow hanging down from right thumb, index, and middle fingers
- Student grasps the right side (“shoulder”) and in one counter clock swing places violin under the chin

“Mountain Pose”

- Feet in “playing position”
- Violin under the left arm (now bow)
- Left hand placed on left violin “shoulder” and right hand placed on violin’s end button.”
- Student says the following chant while performing corresponding motions/movements:

Violin/Viola Hold Chant

Hey Diddle, Diddle (violin/viola in front of the student)

The cat has a fiddle (student extends arms above the head and behind the ears for good stretch)

It sits on my shoulder to play (in one motion from above student's places violin onto left shoulder)

My chin goes whizz (student turns head to the left)

and my head goes plop (student places chin onto the chin rest)

Now I play my fiddle whole day, hurray! (student folds the hands on "belly" and hold instrument for the duration of Twinkles played by teacher or another student)

Repeat several times

- Steps for teaching cello hold:
 - Student is sitting on the edge of chair in "rest position."
 - Cello is in front of student.
 - Student says the following chant while performing corresponding motions/movements:

Cello Hold Chant

Cello (cello in front), **feet** (stomping feet), **edge of your seat** (double check on seat), **tall as a tree** (bring the cello to the body, "hug" the cello with knees"; bring cello's neck/scroll closer to left shoulder, check that the C peg is behind the left ear lobe) **and looking at me** (look up and go to "Bear Hug" position).

Repeat several times

Cello Hold Song



Paul Rolland steps for teaching instrument hold (applicable when teaching beginning and intermediate string classes)

Two ways:

“Statue of Liberty” steps

- Feet in “V” position
- Left hand is wrapped around the “saddle” (in middle position), student simultaneously moves the left foot slightly forward to left while raises the instrument high “like a torch”, student then turns instrument in counter-clockwise motion and places instrument on shoulder.

Student checks that the instrument's button is at the center of the throat. Repeat these steps several times.

- Instrument's scroll should be pointed "upward" and instrument should be tilted towards the left ear so to have strings parallel to the floor as much as possible.
 - "Balancing a Ball" step to check the level of the violin
- Exercises for strengthening the jaw support:
 - With instrument on the left shoulder, student places left hand on the right shoulder and stays in that position for ten counts.
 - In class situation, two students do right-hand shake while holding the instruments on their shoulders.

"Left-Hand Pizzicato" steps:

- Feet in playing position
- Student holds the instrument in rest position with left hand wrapped around the "saddle" (in middle position); with the pinkie of left hand (or third finger) student *lightly* plucks each string three to four times; with the help of the right-hand student places instrument on the left shoulder; continue plucking while maintaining the correct position of the left arm and hand
 - This naturally leads into five stages of learning how to tune instruments:
 - Student plucks-teachers tunes
 - Student plucks-student tunes
 - Student moves the bow-teacher tunes
 - Student moves the bow and tunes instrument string by string
 - Student moves the bow and tunes the instrument in perfect fifths

Kató Havas steps for teaching instrument hold (applicable when teaching intermediate and advanced string classes):

"Humming Fiddle Steps":

- Student holds the instrument with "feather light touch" with the right hand around the instrument's rib (to the right side of the body)
- Student moves instrument in front of his/her body in gentle horizontal swinging motion. This causes strings to "hum."
- Student places instrument with one swift, continuous motion, onto the collarbone and under the chin.
- Student should imagine that his/her fleshy area beneath the left jawbone "spreads all over" and that there is an "air cushion" between the jaw and the chinrest.
- Instrument slightly slopes downward.

William Primrose's steps for teaching viola hold (applicable when teaching advanced students):

- Right hand around viola's bout (middle part)
- Left-hand on player's right shoulder.
- Head straight and looks forward
- With right hand, bring the viola onto the left shoulder
- Turn the head left and place the chin onto the chinrest.

Instrument hold exercises

Exercises for development of muscles that promote good posture and balanced instrument hold:

“Case Walk” (Rolland)

- Students walk around with empty instrument cases: (a) with instrument cases in front of their chest or (b) with instrument cases above their heads.

“Down and Up” (Applebaum)

- Instrument in playing position. Arms crossed in front of the student’s chest.
- Bend the knees, then straighten up. Repeat four times.
- This exercise strengthens shoulder and neck muscles.

“Left Arm Goes Around” (Pfeifer/Ozim)

- Instrument in playing position.
- Move left arm under and over the instrument while reaching over the bridge from both sides of the instrument
- Repeat four times.
 - This exercise supports the freedom of left shoulder

Teaching Left-Hand Setup

What to teach?

- Left-hand placement/orientation on the instrument’s neck
 - Double contact
- Placement and shape of the left thumb
- Placement and shape of other fingers
 - Exercises for strengthening left-hand fingers
- Concept of “Left-Hand Frame”
- Opening the space between fingers
- Left elbow and wrist/hand alignment
- Elevations of the left hand on instrument’s neck

“When the fingers of the left hand are well balanced, all four fingers can reach their respective notes without undue effort.” (Rolland)

Objectives

- Under no circumstances there should be squeezing between the left thumb and the base of the 1st finger.
- There should be open space between the thumb and 1st finger (“V” shape)
- Suggested placement for the left-thumb: across 1st finger (violin), between 1st and 2nd finger (viola), across 2nd finger (cello & double bass). However, in advanced playing thumb moves (“Clever Thumb”)
- Other fingers hover over the string on which we play in curved shape (“Cupcake Shape”)

- Pinkie (4th finger) shall stay above the string all the time in curved shape, as much as possible.
- Between the 1st and 4th positions there should be a “Double Contact” between the instrument’s neck and the hand (applicable only for upper string instruments). One contact point is in the middle part of the upper digit of the left thumb and other contact point is in the base of index/pointer finger (1st finger).
- There is an alignment between the left-hand knuckles, wrist, and forearm. Avoid “begging hands/pizza delivery” shaped hands.
 - On cello and double bass use the image of “bird wings.”

Useful markings/materials/equipment for teaching left-hand setup and fingers placement

- Markings on the left hand: “Magic X” and “Magic Dot” (Rolland)
- Markings on fingerboards: “Signal Dots” (Rolland), “Tape Markers” (Suzuki), or “Piece of Thread & Scotch Tape” (Sassmannshaus)
- Rubber band for strengthening left-hand fingers and opening the space between fingers

Pedagogy for teaching left-hand setup

Shinichi Suzuki steps for establishing proper left-hand setup (applicable when teaching beginning students)

Two ways

“Original Steps” (applicable when teaching beginning students on upper string instruments)

- Place the hand in fourth or fifth position with palm touching instrument’s shoulder to form proper shape of left hand.
- The base of left thumb is in “open” and other fingers hover over the fingerboard.
- While keeping the same shape of the left-hand and the angle of the wrist, slide down to first position
- Pieces in Suzuki Book One opening pieces require proper placement of the 1st finger and descending tetrachord.

“Make a Stop Sign” song steps (applicable in beginning students on all bowed string instruments)

- Student places left-hand in first position with palm open like in “stop sign.” Middle part of the fleshy part of left thumb should be placed on left side of the instrument’s neck and the side of first finger (base area) needs to be placed on the right side of the instrument’s neck.
- Thumb and the base of index finger are right across each other.
- While singing on the tune of *Song of the Wind* student makes corresponding movements:

Make a Stop Sign Song

Make a stop sign just like this (student makes “stop sign”)

Move your elbow with the twist (student moves elbow to right)

Hover fingers nice and round (student curls fingers above the strings in “cupcake position”)

Open fingers without sound (student opens fingers into “left-hand frame” position)

Paul Rolland steps for establishing proper left-hand setup (applicable when teaching beginning and intermediate students)

- “Native Position”: Left hand hangs in relaxed position next to the body. First finger is naturally separated from second, third, and fourth fingers.
- This “Native Position” is transferred to the instrument’s neck in “low position” (i.e. 1st position)
- First finger is moved towards the scroll/nut.
- Fourth finger is extended towards the bridge.
- This shape is maintained for several counts and steps are repeated.

Rolland also talked about the “elevation of the left hand” relative to how low or high it is positioned on the instrument’s neck/fingerboard. According to Rolland, there are three elevations of left hand: high (used when playing on lower strings in low positions), low (used when playing on higher strings in low positions), and average (when playing on middle strings). Teaching these variations in left-hand elevations contributes to the establishment of the well-balanced left hand.

Kató Havas steps for establishing proper left-hand setup (applicable when teaching beginning, intermediate, and advanced string students on upper string instruments)

- Both arms raised up in “L” shape. Notice engaged back muscles.
- Lower forearm to the level of elbow. Hands are freely hanging down.
- Make nine “flip-flop” movements with both hands. Feel connection with back muscles.
- On tenth “flop” assume “giving hand/cradle” shape of the left hand. The left wrist is going to be just slightly inward.
- With right hand around the instrument’s bout bring the instrument into “giving hand” shape. No need for making adjustments.
- Left-hand fingers are placed on the string from horizontal level, rather than from vertical as in other approaches.

Exercises for development of the proper left-hand setup

Paul Roland exercises for further development of the proper left-hand shape. These exercises are also preparing advanced left-hand playing techniques such as shifting and vibrato.

- “Sliding on Magic X“, “Shuttles”, “Strumming with Elbow Swings”, “Tapping Over Fingerboard”; “Left-Hand Pizzicato-*Each and Every Ant*” & “Hot Cross Buns”; “Plucking in Three Positions”; “Grasshopper” (all practiced with no bow)
- “Flutes” & “Ghosts” (after several weeks/months; these two exercises are played with the bow)

Colourstrings approach:

- Numbered left-hand pizzicato
- Natural harmonics

Each and Every Ant

(Pluck each string with left-hand pinkie three times→
move elbow to the next string before plucking next string)

Each, each, each and every (only violins)

Ant, ant, ant, digging in the (violas and cellos join)

Dirt, Dirt all the way to

Georgia, Georgia, Georgia all the way to

China, China, China (only violas and cellos)

Hot Cross Buns

(The bass line for the Hot Cross Buns;
pluck with left hand pinkie while moving left elbow accordingly)

C G C Stomp

(violas & cellos)

C G C Stomp

CC GG C G C Stomp

G D G Stomp

G D G Stomp

GG DD G D G Stomp

D A D Stomp

D A D Stomp

DD AA D A D Stomp

A E A (violins & double bass)

Etc.

“Geminiani Grip/Chord” exercise for development of the left-hand frame (applicable when teaching beginning, intermediate, and advanced students on all four bowed string instruments):

- Place fourth finger on the lowest string
- Place third finger one step away on adjacent string.
- Place second finger one step away on next string.
- Place first finger in “low one” position on the highest string (at early stages of using this exercise and on lower strings, first finger can be in “high position.”
 - Move the thumb and no squeezing.
 - Gently shake left hand and repeat the above steps.

Leopold Mozart's variation on "Geminiani Chord":

- Set up left hand in "Geminiani Chord" position.
 - Lift up fourth finger. Other fingers remain on the string. Fourth finger hovers above the string.
 - Lift up second finger. Other fingers remain on the string. Second finger hovers above the string.
 - Lift up third finger. Other fingers remain on the string. Third finger hovers above the string.
 - Lift up first finger. Other fingers remain on the string. First finger hovers above the string.
- This exercise is also an excellent exercise for development of fingers independence (Applebaum)

Additional exercises for development of the proper left-hand setup:

Paul Rolland exercises for development of the left-thumb flexibility:

- Sliding with thumb along the neck
- Sliding with other fingers while thumb is one place
- Tapping with thumb

Samuel Applebaum exercises for opening/widening the space between left-hand fingers' base joints:

- With the help of right-hand thumb and left index finger spread the space between each adjacent finger (as far apart as possible). Hold open space to the count of six. Repeat four times.
- Left hand is in pretended playing position. Place the rubber band around the four fingers of the left hand near the tips. Stretch the first finger as far away from the other three fingers. Hold until count of six. Repeat four times.
- Repeat with first and second finger moving away from third and fourth as far as possible. Hold until count of six and repeat four times. Finally, repeat sideways movement with counting with fourth finger being away from other fingers as far as possible.

There should be an alignment between left hand base knuckles, hand, wrist, and forearm. Left elbow movements ("monkey swings") from one string to another need to be taught to students starting with *Ants* song.

Simon Fischer exercise for opening the space between fingers' base joints:

- Hold the hand in pretended playing position. While keeping fingers curved, open the space between 1st and 2nd finger by moving first finger sideways so that a V-shaped space opens between the base of first and second finger. Practice with other fingers.

Simon Fischer steps for establishing proper left-hand setup which he calls “Classic Left-Hand.” (Variation on “Geminiani Chord”; Applicable when teaching intermediate and advanced students):

- Place fingers in “Geminiani Chord” position built from 4th finger placed on the lowest string backward.
- Instead of just holding the hand in such position, use L. Mozart’s Variation on “Geminiani Chord”: While keeping 4th down lift up first, third, and second finger. Keep fingers close to string and in the same shape as when they were on the string.
- Shake hand to relax and repeat steps 1 and 2.
 - Galamian used term “left-hand frame” as the golden standard for the “perfect” shape of left hand. Left-hand frame is the open space between the first and fourth finger (creating either octave or perfect fourth) that needs to be maintained while playing regardless of what finger we are using.

Teaching Bow Hold

What to teach?

- Name (for beginning students) and role (for intermediate and advanced students) of each right-hand finger
- Bow hold steps
- Bow exercises

Objectives

- Right thumb that is bent but mostly mailable. “Clever Thumb”
- Right thumb that is placed “half on the frog’s nose and half on the stick.”
- Middle finger positioned right across the bent thumb. Point of touch between the bow stick and the finger is in the middle of the middle digit.
- Ring finger next to the middle finger slightly pointing towards the “frog’s eyes.” Point of touch between the bow stick and the finger is in the middle of the middle digit.
- Curved pinkie positioned at the top of the bow stick.
 - Another school of thought (Applebaum and Galamian) is that pinkie is placed on the side of the octagon close to player’s hand.
- Pointer/index finger positioned little away from the middle finger. Point of touch between the bow stick and finger is slightly closer to the dividing line between the first (one close to the knuckle) and middle digits. Pointer/index finger is wrapped around the bow where the texture of the bow grip changes.
- In proper bow hold fingers are round and there is a space between fingers.

Useful markings/materials/accessories:

- Markings on the right hand: “Corner Dot” (on the “tip” of the right-hand thumb that is closer to index finger) and “Middle Lanes” (on two middle fingers) (Rolland)
- Markings on bow: middle point marking, quarter parts markings;

- Considerations:
 - Marking bow divisions by stickers on inside of the bow vs. full tape
 - Determining the middle point of the bow by the length of the arm
- Materials: pencils/dowel stick
- Accessories: “Pinkie House” and Dr. Scholls callus pads

Pedagogy for teaching bow hold

Teaching the names of the bow-hand fingers
(applicable to teaching beginning students on all bowed string instruments):

“Bow hand depends entirely upon how we hold the bow.” (Mark Rush)

Bent Thumb
Hugging Brothers
Soft Guiding Pointer
Curved Pinkie

Explaining the role of each finger in the bow hold (applicable when teaching intermediate and advanced students on all four bowed string instruments):

- **Index finger:** pressure (in the upper half of the bow) and counterbalances pinkie (index finger *pulls* the bow and pinkie *pushes* the bow)
- **Middle finger:** forms the “ring” with right thumb and “holds the bow”; these two fingers allow for “penetration” of the string
- **Ring finger:** ‘Spiritual Guide’ of the bow because its role in coloring the sound
- **Pinkie:** counterbalances pressure of index finger

Shinichi Suzuki steps for teaching bow hold (applicable when teaching very young students)

Early bow hold:

- Start with simulated bow (“dowel stick” bow). Bent thumb and other fingers hold the bow. This strengthens the thumb and opens the space between the thumb and other fingers.
- Transfer this early bow hold onto the real bow. Place bent thumb onto the “silver rim.”
 - In Suzuki teachers assist students manually.

Professional bow hold:

- After several months/years “early bow hold” is transferred to the professional bow hold.
- Bent thumb is placed on the tip of the “frog’s nose” and other fingers are wrapped around the stick on the opposite side.

Paul Rolland steps for teaching bow hold (applicable when teaching bow hold to beginning and intermediate string students)

Early bow hold:

- (1) Student holds pencil in left hand in vertical position. (2) Student connects bent thumb with middle finger into “O” shape. (3) Student brings bent thumb and middle finger to pencil. (4) Student places other fingers on pencil (ring together with middle, pointer little further up, and pinkie on the top of the stick). (5) Student memorizes the feel of the bow hold.
- Same five steps are then transferred to the “balance point” on the bow stick.

Professional bow hold:

- Once student can properly perform “Spider” exercise, student is transferred to the professional bow hold.

Samuel Applebaum *Nine Steps* for teaching bow hold (applicable when teaching beginning string students):

- (1) Hold the bow with the left hand in front of you. Bow stick is vertical and bow hair is turned towards you. (2) Wiggle the right thumb. (3) Bend the thumb and bring its right side to the inner side of the frog where frog meets the stick. Half of the thumb will be on the stick and half on the frog. (4) Place the middle finger right across the bent thumb so that stick is touching the finger in the crease of the first joint nearest to the fingertip. (5) Place the ring finger next to middle finger. Ring finger should point towards the pearl button. It can even cover it. (6) Place the tip of little finger on the inner side of the stick, closer to the palm of the left-hand. (7) Place index finger over the stick in the middle point of the middle joint. (8) The distance between fingers should be the same. (9) Hold the bow in this position until count of ten.
Release and do “Nine Steps” several more times.

Kató Havas *Five Steps* for teaching bow hold (applicable when teaching beginning, intermediate, and advanced string students):

1. “Link”: in a small circular motion student connects “bent thumb” with middle finger and inserts the frog between the thumb and middle finger; thumb is touching the stick and bow-hair.
2. “Spread”: fingers comfortably spread over the frog
3. “Curve”: curved pinkie positioned on top of the stick
4. “Give”: add “fluids” in all joints to make them soft and malleable
5. “Fly”: fingers are slightly “off the bow frog” (That feeling of “freedom” from gripping the bow frog is what makes Havas’ bow hold into “no bow hold bow hold.”)

“Hanging Monkey” steps for teaching bow hold (applicable when teaching beginning and intermediate string students):

- (1) Bow held with left hand in horizontal position with bow hair facing down
- (2) Place bent thumb half on the stick and half on “frog’s nose.”
- (3) Place two middle fingers on top of the stick right across the thumb.
- (4) Place pinkie on the side of octagon that is close to body.
- (5) Wrap pointer around where the texture of the bow grip changes.

Galamian and Applebaum explained that right hand pinkie shall touch bow stick on the line of the bow-octagon that is closest to the player’s body when bow is in front of the player in horizontal position.

Bow exercises

Bow exercises for beginning students:

“Up Like a Rocket”

(chant)

*Up like a rocket, down like a rain
Back and forth like a choo-choo train
Round and round like a great big sun
Up to my head just for fun
Up like a rocket, down like a rain
Back and forth like a choo-choo train*

“The Wheels on the Bus”

(song)

*The wheels on the bus go round and round...
The people on the bus go up and down...
The door on the bus open like this...
The windshield whippers go like this...
Spider on the bus goes like this*

“Circle, Circle”

(song, on tune of *Allegro* from Suzuki Book 1)

*Circle, circle carefully we circle
Up and down and circle all around (2 times)
Keep your thumb bent, keep your tip straight,*

Keep you circle goin' round... (fermata)
Circle, circle carefully we circle
Up and down and circle all around

Bow exercises for intermediate students:

Three Steps Exercise for development of: (a) strength of the arm, (b) flexibility of the wrist and, (c) flexibility of the fingers. For maximal benefits, throughout the sequence, right arm must remain extended and straight in front of student's body.

(1) *Windmill Exercise* (for development of the strength of the whole right arm):

- Right arm extended and bow in right hand
- Start with the bow hair parallel to the floor (count 1).
- While counting until eight in slow quarter notes rotate entire arm and turn bow tip to the floor (count 2). Come back to "parallel to the floor position" (count 3), rotate arm and turn bow tip towards the ceiling (count 4), rotate arm towards right and have bow stick parallel to the floor (count 5), rotate arm once more towards right and turn bow tip towards the floor (count 6). Now rotate arm towards left and have bow stick parallel to the floor (count 7). Finally, rotate arm once again towards left with the tip towards the ceiling (count 8). Repeat the whole sequence two to three times.

(2) *Wrist Flexibility Exercises*

Vertical movements of the wrist:

- Right arm extended and bow in right hand.
- Left hand positioned under the right wrist and holding the wrist.
- Bow hair parallel to the floor and right wrist (hand) flat as in "neutral position.
- While counting until four in slow quarter notes move wrist (hand) down (count 1), back to neutral position (count 2), up (count 3), and back to neutral position (count 4).
- In the beginning the range of wrist's down and up motions may be limited. Aim towards extending the range to the maximum while staying discomfort free.
- Repeat the sequence two to three times.

Horizontal movements of the wrist:

- Right arm extended and bow in right hand.
- Left hand positioned under the right wrist and holding the wrist.
- Bow hair parallel to the floor and right wrist flat as in "neutral position.
- While counting until four in slow quarter notes move wrist/hand to the left with bow tip touching left shoulder (count 1), back to neutral position (count 2), move wrist/hand to far right (count 3), and back to neutral position (count 4).
- Fingers should follow the movement of wrist/hand: when tip touching the left shoulder fingers should be curled and when wrist/hand reach far right position fingers should be straight.
 - If this exercise feels too complicated to student, practice it at first without the bow.
- Repeat two to three times.

Circular movements of the wrist:

- Right arm extended and bow in right hand.
- Left hand positioned under the right wrist and holding the wrist.

- Bow hair parallel to the floor and right wrist flat as in “neutral position.
- While counting until eight make eight clock-wise circles followed by eight contra clock-wise circles.

(3) *Fingers flexibility exercises:*

Vertical movements of the fingers:

- Right arm extended and bow in horizontal position with the bow hair facing the floor.
- Left hand holds the bow stick in the middle part of the stick.
- Move fingers up and down eight times. Only fingers and thumb move. Not the wrist or arm.

Horizontal movements of the fingers:

- Right arm extended and bow in horizontal position with the bow hair facing the floor.
- Insert left-hand pinkie in between bow stick and bow hair in the tip area of the bow.
- While moving only the fingers of the right hand, move bow like when playing down and up bow.
- Repeat eight times.

Circular movements of the fingers:

- Right arm extended and bow in vertical position
- While moving only the fingers of the right hand, make eight clock-wise circular motions and eight contra clock-wise circular motions.
 - It takes time to develop the feel for moving fingers as isolated unit from the hand. You may help yourself by placing the left hand on the top of the right hand.

The above sequence of three exercises shall be practiced with following combinations of fingers: (a) all five fingers, (b) thumb, index, and ring fingers, (c) thumb, index, and pinkie, and (d) thumb, middle, and ring fingers.

Samuel Applebaum *Crawling Spider* exercise for development of the strength and the agility of the right-hand fingers:

- (1) Hold the bow with the tip pointing towards the ceiling. (2) Crawl with the fingers up and down the entire stick without touching the hair. Keep the thumb and middle fingers across each other. Do this slowly with taking deep breath at the frog, middle, and the tip of the bow. (3) Now repeat the same exercise with the bow in parallel to the floor position.

Milanov Method bow exercises for beginning and intermediate students:

- Frog Eye Rhythm
- Pinkie Power
- Ceiling Circles
- The Fountain

Advanced bow exercises:

Exercises for further development of the finger's flexibility:

- With no bow
- With bow while adding one finger at the time
- Silent string crossing (adjacent strings)
- *Collé*
- Bow changes in the frog and the tip on open strings and scales

Additional bow exercises:

Exercise for development of the strength of the right-hand pinkie (Mark Rush):

- (1) Hold the bow in the middle of the stick with right-hand. (2) Extend the arm and keep bow parallel to the floor. Make sure pinkie is curled. (3) Now with the pressure of the pinkie move the frog of the bow towards the floor as much as possible. (4) Eventually, this exercise should be practiced with the regular bow hold in frog area.
 - Simpler exercises for strengthening left-hand pinkie is: place all four fingers of right-hand in palm of left-hand. Do "push-ups" with each finger including pinkie (like pressing into the palm)

Exercise for development of the strength of the grip between the thumb and middle finger (picking up the bow with thumb and middle finger):

- (1) Place the bow on flat surface. (2) Pick it up and put it down with only thumb and middle finger several time. (With practice this exercise becomes easier.)

Exercise for development of the bow grip (holding the bow with no thumb):

- (1) Hold the bow with all five fingers. (2) Feel the balance. (3) Pick up the thumb off the bow. (4) After feeling comfortable with that lift off index finger and hold the bow with only three fingers.



TEACHING FOUNDATIONS ON CELLO & DOUBLE BASS

Teaching Instrument Hold

Cello:

The end-pin is adjusted in accordance to the length of player's arms. Instrument should be slightly tilted from the left to the right so to make playing on A string easier, but instrument can also be slightly rotated to accommodate playing on lower strings. The right knee "supports" instrument's right lower bout, while the inner side of the left thigh (three to five inches from the left knee cap) "supports" the corner of the left lower bout.

Teaching steps:

- Student sits on the front half of the chair with the body straight and slightly forward.
- The tips of the toes are 20-24 inches apart.
- Right foot forward about 6 inches.
- Cello tilted slightly from the left to the right in order to make playing on the A string more comfortably (it can be titled the other way around, too).
- Scroll and C-string peg is right behind player's left ear.
- Cello's neck is an inch from the player's neck.
- The end pin adjusted to the length of the player's arm (the longer arms, the lower the endpin).

Double bass:

The end-pin is adjusted by holding the bass in completely vertical position, with left hand, in front of the player's body (strings turned towards player). The right arm is freely dropped downward with fingers turned towards the bridge. The end-pin height is correct when the first joint of the first finger touches the bridge with no adjustments. The left groin supports the right rear edge of the bass and the inside part of the left knee is in contact with the lower bout of the bass.

Teaching steps:

- Right foot slightly forward.
- Double bass reclines on inner part of the left knee and it touches the left hip. Inside part of the left knee touches the lower wing of the bass.
- The end pin forms a triangle with the toes.

Teaching Bow Hold

Cello:

Position of each finger:

- The right side of the thumb is placed on the inner side of the frog, with the most of the thumb being positioned on the frog and small part on the stick. Thumb needs to be curved.
- The little finger should cover the pearl part of the frog.
 - When playing, the little finger should be positioned perpendicularly on the stick so that finger's four knuckles are directly above the stick.
- First finger contacts the bow stick in its first joint.
- Second and third finger are positioned onto the bow stick in relaxed manner and are loosely together (not spread apart).

Teaching steps:

1. Hold the bow in the middle part of the bow stick with left hand with hair facing the floor (horizontal position).
2. Bend the right thumb and bring it to the frog.
3. Two-thirds of the tip of the thumb will be on the frog, and one-third will be on the stick.
4. Put the middle finger right across the thumb.
5. Add the ring finger, then the index finger.
6. Wrap the pinkie around the stick.

(Fingers should be up, standing and not collapsed)

Double bass:

Position of each finger (French bow hold):

- The right side of the thumb is placed on the inner part of the frog. Thumb's contact point is equally distributed between the inner part of the frog ("frog's nose") and the stick. Thumb needs to be curved.
- Second finger is right across the thumb and it touches the stick in two points: the ferrule and the stick itself.
- Third finger is in its natural shape and right next to second finger.
- The tip of the little finger covers the pearl or it comes right above it.
- First finger contacts the stick midway between the first and second joint.

Teaching steps for French Bow Hold:

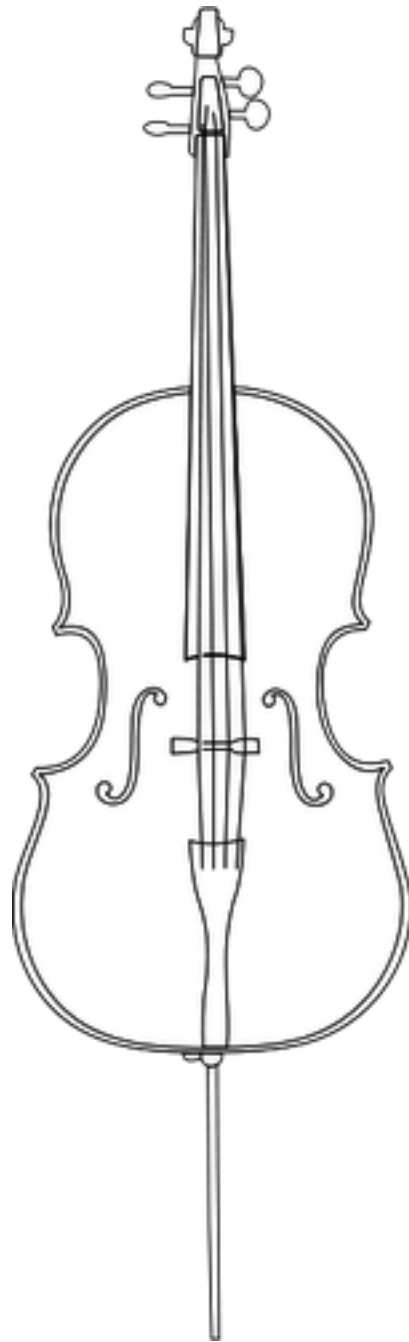
1. Hold the bow in the left hand with hair facing the floor.
2. Bend the right thumb and bring it to the frog.
3. Two-thirds of the tip of the thumb will be on the frog, and one-third will be on the stick.
4. Put the middle finger right across the thumb.
5. Add the ring finger and then index finger.

6. Wrap the pinkie around the stick.

(Fingers should be up, standing and not collapsed)

Teaching steps for German Bow Hold:

1. Extend right arm with the thumb slightly raised.
2. Place the nut of the bow into the web between the first finger and the thumb.
3. Flex the thumb so that the flesh part of the thumb lies flat on the stick with the thumb bent slightly outward.
4. Curl the little finger and place it under the frog so that inner side of the little finger acts as a shelf for the frog.
5. The tips of the first and second fingers are placed against the side of the bow away from the palm, and they must be slightly curved.
6. The third finger is placed in the inner groove of the frog at the outer side of the first joint, exerting pressure down towards the hair.
7. There must be a space of about $\frac{3}{4}$ of an inch which will separate the frog from the palm of the hand to allow the frog of the bow to move freely into the palm.



Selected Reading List

Applebaum, Samuel. *The Art and Science of String Performance*. Sherman Oak, CA: Alfred Publishing, 1986.

Fischer, Simon. *Basics*. London: Peters Edition, 1996.

Flesch, Carl: *The Art of Violin Playing*, Book 1. New York: Carl Fischer, 2000.

Perkins, Marianne Murray. *A comparison of Violin Playing Techniques: Kató Havas, Paul Rolland, and Shinichi Suzuki*. Fairfax, VA: American String Teachers Association, 1995.

Rolland, Paul. *Basic Principles of Violin Playing*. Van Nuys, CA: Alfred Music 2010.

Star, William. *The Suzuki Violinist: A Guide to Teachers and Parents*. Los Angeles, CA: Summy Birchard Music, 2000.