Archery HOME training tips
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The WAEC coaches prepared these tips for any of you who would like to keep practicing at home during these Corona-Virus restriction days. Staying at home is no reason to not keep enjoying the “Art of Archery”.

These tips and exercises are offered with the intention of providing help to any of you who would like to keep growing as archer and develop the skills needed to return to the WAEC (when allowed) in a better and stronger shape … and finest form than ever before.

These exercises-tips are explained with text, photos and a specific video clip created for you. Any question or additional explanation needed, please contact us at info@worldarcherycentre.org. We will come back to you as soon as possible with answers and clarifications.
When practising at home, **safety must be your first concern**. Find a location with no windows nor open spaces behind the target. Make sure there is no risk of accident in case an arrow misses the target, or is released unintentionally (clicker sound and arrow is shot with no intention).

- Make sure **nobody at home** can accidentally walk in front of the target, nor open a door and cross the shooting area. If possible, secure the area with plastic bands or elements to stop any direct access to the target from both sides or behind.

- Inform everyone at home when start practising and the spaces they can not go. **Don’t wear headsets** while practising. **You need to hear anyone coming.**

- Make sure the target matt is in **good shape** and actually stops the arrow. Make sure that it is **fixed correctly** and cannot fall. Keep a minimum distance of 50 cm from the back of the target matt to the wall or any furniture.

- Before practising, make sure you **warm up properly**.
Safety FIRST
Home is not an archery facility

- When using the bow at home, make sure the **ceiling is high enough**. So the upper limb does not touch the ceiling nor any other element when shooting (furniture, plants, lamps, etc.)
- Maintain **sufficient distance** from the target matt location to your shooting area to prevent the long stabilizer from hitting the arrows when on the target.
- Use proper **target matts** and make sure arrows cannot pass through it.
- Before shooting, always check that your **sight is adjusted correctly** for a short distance shoot.
- If shooting outdoors, make sure there is a **wall or a safe back distance** to avoid any accident with an arrow missing the target. Install a wooden safety wall (no net) or keep 50 to 60 m open range behind the target (a safety wall is always better)

**Each person is responsible for safety measures when shooting an arrow, wherever it is done.**

The WAEC and the coaches involved in these tips are not liable nor responsible for any accident that may happen.
This set of exercises will help you to improve your shooting skills. They are marked in 3 levels of difficulties (Novice-Easy / Intermediate-Medium / Advanced-Difficult). You will find in all of them an icon defining the level of difficulty. This is just an orientation. By practising you will find the level of difficulties of each of them for yourself.

These exercises are just proposals, and you can adapt them as much as needed based on your skills and location you have found to practice.

You might need some additional material as a mirror, tape, string, target matt, target faces and elastic bands. If you do not have nor find some of it, please contact the WAEC via our info e-mail address, and we will provide them with pleasure.

Some exercises require shooting and some not. Please never forget SAFETY when practising!
VIDEO DELAY

Video delay is an excellent tool when training alone. It is a live recorded video that continuously shows the live-action with a few seconds of delay.

There are many video delay apps available in the market. Here we show you just a few that we use in the WAEC, and we are most familiar with. Feel free to use the one that suits you best.

Using a video delay app allows you to observe your shots a few seconds after it was executed. This real footage can offer you a lot of useful information on these aspects you are working on. It helps you to self-evaluate your work and your performance on the exercise you are doing.

Remember that, what you feel during the shot is not exactly what you do. The sensation of a shot is "subjective" information. The importance of observing yourself is to unite what you feel with the real and objective information or what happens. Video delay offers you this. Take advantage of it.

Feel free to locate your video delay device in the positions that better allow you to observe the details you want to focus on, and at the height where you can see it best. We usually set the video delay between 6-8 seconds delay. We recommend you adjust it to your own shooting pace.

Tip: Use a tripod with a tablet or phone holder when filming yourself. It avoids the possibility to drop your device and damage it.
A few exercises need assistance. It means that social distance of 1.5m to 2m recommended by Authorities cannot be respected. You will find this pictogram in these exercises.

Several exercises should be done with eyes open and then repeated with eyes closed. It helps to focus better on the task assigned. This pictogram will identify these.

This icon identifies this group of exercises for which a Video Delay tool could be helpful.

Video Delay tools
This set of exercises are aimed to working on work on your muscles, keeping them fit and prepared for archery.

As it was the case with the Technical form exercises, these ones are also marked with a pictogram indicating the level of difficulty. Again, these are just initial orientations. Please check before doing them if you are fit and healthy enough to do the exercise proposed.

We suggest some number repetitions in most of the exercises, but feel free to adapt repetitions, recovery time and rounds to your fitness level.

Never forget to warm up properly, as well as keeping the full control during the effort production.

You can mix physical exercises with shooting or form exercises. As many as you want, as many as you can do correctly and according to the time you have. The critical part here is to do them, better more days doing a little bit ... instead of 1 day doing a lot.
Let’s start practice at home. ENJOY IT!
#1 Specific Strength

Draw the bow, hold 5” / pause 2” x 5 times.

Draw the bow, hold 7” / pause 2” x 7 times.

Keep the posture and full draw position while aiming at a point (or a target face).

[https://youtu.be/NQgAd-rQV0U](https://youtu.be/NQgAd-rQV0U)
PHYSICAL Condition

#2 Specific strength

Raise bow for 20” / rest 10” x 2 times.
Raise bow for 30” / rest 10” x 2 times

Keep the “T” position. Maintain body posture straight (Attention: body may lean to compensate bow weight). Keep your eyes on the sight.

https://youtu.be/NAWvQSCZY7M
#3 Specific strength

Raise bow for 20” / rest 10” x 2 times.
Raise bow for 30” / rest 10” x 2 times

Keep the “T” position. Maintain body posture straight (Attention: body may lean to compensate bow weight). Keep your eyes on the sight.

https://youtu.be/e7CThysM1LY
PHYSICAL Condition

#4 Specific strength

Full draw hold bow for 20” / 15” rest / 2 times
Full draw hold bow for 30” / 20” rest / 3 times

Keep posture at full draw position. No arrow on the bow. Avoid collapsing. Keep strength well balanced with both arms-shoulders with stable aiming. 30 sec rest between drawings.

https://youtu.be/KJ2Npks-8EY
#4 - a Specific strength

Full draw - 2 x front-back balances ending at the initial full draw position. Then rest 10 " / repeat 4 times.

Full draw - 3 x front-back balances ending at the initial full draw position. Then rest 6 " / repeat 5 times.

At full draw position, with no arrow on the bow, bend your trunk in pendular movements ensuring that the “T” position is kept consistent and full draw too. Move body and bow in the vertical plane.

https://youtu.be/TVSgNAfd6js
At standard stance position, no arrow on the bow, come to full draw position. After 2 seconds, balance your body from right leg to left leg and opposite. Repeat three times. After that, stop the draw and rest for 6-10 seconds. You will feel how the bodyweight moves from one foot to the other. Keep the "T" position consistent and stable all the time.

https://youtu.be/59VdGwDu0ig
At full draw position, after 2 seconds, slowly flex your legs to make a squat (not flexing legs more than 90°) and extend legs again. Move the body and sight of the bow in the vertical plane. Keep balance and “T” position stable.

https://youtu.be/QxMb4DB0Z10
Bow arm extensions

- x 6 times x 2 / 15” rest
- X 10 times x 3 / 10” rest

Full bow arm extensions, feeling the grip pressure point in the bow hand and the direction of the bow toward the target.

Variation: 2” bow arm extended / 2” bow arm flexed

Note:
Hips should remain still, therefore it is better to do it in front of a mirror (when possible).
#6 General strength

Body should be kept straight on line. Arms separated from body aprox. 45º

- 6-8 repetitions (knees on the floor)
- 10 repetitions
- 14 repetitions

Push-up / slow speed

https://youtu.be/AuMD_vwQNPA
#7 General strength

**Plank**

- Hold position for 30” x 2 / 30” rest.
- Hold position for 45” x 3 times / 1 min rest.

Arms should be placed at shoulder's height. Head looking down.

Position can be changed with arms straight if elbows hurt.

Note:
If you are interested in more Plank exercises, take a look here:
22 Plank Variations

https://youtu.be/gjkNfhV7ph8

https://www.youtube.com/watch?v=k9w2LJAZ1iY
Place your body as in its full draw shooting position, keeping the bow arm-elbow rotated (pronation) as when shooting.

Hips should be elevated to maintain the “T” body position. Keep the body position aligned from feet to head, and bow shoulder constantly aligned and at the same position as when shooting. Press-push against the floor.

**Note:**
Difficulty can be increased by elevating slightly one foot instead of letting the two feet on the ground.

Hold position for 10” x 2 times / 30” rest.

Hold position for 20” x 3 times / 30” rest.

https://youtu.be/yZFJi55gpWE
Feet placed at the same separation as shoulders.

Feet in slight open angle to prevent knee rotation.

When bending the knees, the tip of the knee should not pass the tip of your foot (to prevent extra stress on the knee). No flexing more than 45°.

Squats

Keep your back straight.
Avoid Jerk and momentum

https://youtu.be/DVDOnset12w

General strength

#9 PHYSICAL Condition

- 15 rep 25 rep 30 rep
- 2 / 30” rest x 3 / 40” rest x 3 / 30” rest
In Plank position, one arm touches the opposite ankle and comes back to its initial position. Alternate arms.

Keep your body as aligned as possible.

Head should be kept in the same line during the exercise (looking to the floor and not to the foot).

https://youtu.be/CKGTBmWrvWQ

#10 General strength

Opposite ankle plank

PHYSICAL Condition

7 rep per arm
X 2 / 40” rest

10 rep per arm
X 2 / 30” rest
Keeping a low centre of gravity. Place a long stick between the ground and the archer’s belly. Maintain a “heavy” belly applying some pressure on the stick.

The belly pressure on the stick must be kept constant during the shooting sequence (or drawing sequence when no shooting).

Note:
When mastered, it could also be done shooting an arrow.

https://youtu.be/XVM---rZi3EE
#12 Posture/ Stance

Locate a wooden stick on your back, over the spine, fixed with the chest protector strap and the quiver belt.

Follow the shooting sequence (shooting or not). The goal is to maintain the back straight. Initial gap between stick and lower back should not be more than two fingers (5~7cm).

Note: It can be done in front of a mirror, checking the gap and its consistency along with the bow raising and drawing sequence.

https://youtu.be/-yKjR-bu3AI
#13 Posture / Stability

Place a soft juggling ball over your head. Find the balance to maintain it there.

When done, follow the shooting sequence (shooting or not). The goal is to keep the ball on the head the entire sequence.

Note: When mastered, alternate with and without the ball, to identify the feeling associated with maintaining an adequate head position.

https://youtu.be/mABmvybG1vQ
Locate a soft juggling ball on your bow shoulder (help is needed for this). Find the right balance to keep it there.

Then, follow your shooting sequence (shooting or not) trying to keep the ball on the shoulder.

Note: When mastered, alternate with and without the ball, to identify the feeling associated with maintaining an adequate bow shoulder position.
Find a plastic tube (10 to 15 cm length) and introduce a soft elastic band in it.

The tube will be used as the bow grip and the elastic band hooked as the bow string. Then follow the shooting sequence without releasing the band. Repeat several times.

The objective is to feel the pressure on the palm of the hand, stable and not moving. Feel the bow hand relaxed and not applying any strength nor tension.

https://youtu.be/yb1baR_FD4c
#16 Posture / bow arm

Stick a coloured tape on the grip of the bow, allowing it to stick out from the grip to the “bow shelf”. Find the proper bow hand position on the grip and using a marker, draw a clear line over your hand and continue it over the tape showing over the hand.

In this position (without arrow), follow the shooting sequence looking at the bow hand. With a relaxed hand, observe that the bow hand position is maintained, and the line drawn does not break. Repeat several times.

https://youtu.be/yZyVy2mlaz8
TECHNIQUE-FORM

#17 Posture / string arm

Take a soft elastic band. Step over one end. Hook the other end as if it was the bow string.

Find the proper hand hook, position as relaxed as possible. In this position, slowly elevate the shoulder with the arm extended, without increasing the tension of the fingers-hand and keeping the same shape of the hook—no changes in shape nor pressure.

Keep your body straight (without leaning while doing the exercise).

Note: While doing the pulling-up, you can move the thumb and pinkie to ensure that the other three fingers do not flex nor increase their tension while stretching the elastic band.

https://youtu.be/3pB_BSSHVZw
Attach your bow grip to your foot with a short strap or rope. Hook the string as you would be shooting. With the body straight, arm extended and relaxed, elevate your shoulder keeping the tension and shape of your fingers-hand constant.

No change on tension or shape of the hook during the exercise. Repeat several times.

https://youtu.be/5S5a15Tuzq0
Put your hands together like a volleyball player. Extend your arms. In that position rotate them until the inside of your forearms are facing each other.

When you succeed, try the same movement with less force between your hands. When mastered it, try the same by separating your hands.

Repeat several times until you have become skilled at it.

https://youtu.be/MK8adMozPV8
Place an arrow on the inside of your bow arm, where it bends. To attach it, use a rubber band as shown in the illustration.

Lean against a wall and apply some body weight to provide resistance to the arm. In this position, turn the bow arm to its proper shooting position. The arrow should be in vertical position. Get used to and master this position.

When mastered, repeat with less and less pressure on the wall.

https://youtu.be/jhFFLQE_Z1E
Locate an arrow on the back-top of your shoulders using a soft elastic band as shown in the illustration.

With no arrow on the bow, follow the shooting sequence observing-feeling that in full draw position, the arrow is over the bow arm, aiming at the centre of the target (or at an imaginary target).

Note: If the arrow is pointing out, in an open angle with the bow arm, the string arm shoulder is not aligned properly. Use the scapula movement of this arm to align it better. It is important to maintain a fixed bow arm shoulder position (this one should not rotate nor move in any direction).
Place a flat and soft elastic band over the arm, just over the elbow and fix it with a rope to keep it from sliding or moving when exercising (as shown in the illustration above).

Follow the drawing sequence keeping the string hand relaxed and feel the movement of the string shoulder and elbow. Keep your bow shoulder and hips fixed. Keep repeating to feel the appropriate muscular work.

https://youtu.be/vaBQXX5ortQ
Use a Form-Master (Elbow pad device with a string attached to the bow string).

Draw the bow using your string shoulder-elbow and keep your string hand-fingers relaxed. Experience and master how to draw the bow with tension and movement of your shoulder-elbow, instead of using tension in the string hand-fingers.

Make sure that the string hand-fingers are relaxed while drawing the bow. Repeat until mastering it.
Using a Form master device, without arrow, hook the string with the fingers and follow your shooting sequence.

When at full draw, feel the expansion for a few seconds and release the string keeping the whole position (not collapsing). Hold this position for 2-3 seconds.

Repeat several times and make sure you draw the bow with the string shoulder and keep the string fingers as relaxed as possible.

NOTE:
Using a Form master is not only a great tool to improve your release but also to get an immediate feedback after each shot.
When in a proper aligned full draw position, place a tape or mark on the chin where the string is located (string-face contact point).

With no arrow, follow the drawing sequence.

Using a mirror observe how the string arrives always at the same position. Try to bring the string while drawing accurately straight to this position. Feel a strong and clear string pressure over the chin.

NOTE: To be repeated reversely, i.e. draw with eyes closed and open them once the draw is completed (at full draw). Check the string location on the face.
#26 shoulders alignment

This exercise could be combined with Exercise #21 (photo above)

Fix a rope on the top of the upper limb. Help is needed now. Your assistant stays behind you, holding the other end of the rope to the floor. It will be kept straight but with no tension to allow you to draw the bow with no limitations.

Draw until full draw position and maintain it for a few seconds.

Your assistant should align the rope on the bowstring in the middle of the top limb. He/she should observe and/or take photos-videos from this position. Repeat several times.

NOTE:
Good exercise to check proper shoulder alignment and string elbow position, as well as bow verticality.
**TECHNIQUE-FORM**

#27 shoulders alignment

With no arrow, use a mirror with tapes on it (as indicated in the illustration). Locate the mirror or yourself to align your body with the mirror lines.

Come to full draw and observe body alignment, your posture, shoulders and head position. Repeat several times. Make sure your body does not move when drawing the bow until full draw. Keep your posture as stable and consistent as possible.

https://youtu.be/7dBAiGKKTw4

**NOTE:**
Could also be done with an assistant taking videos or photo while drawing the bow.
TECHNIQUE-FORM

#28 Posture / expansion

Same elements as Exec # 22, draw the elastic band until full draw position and take a moment before expanding (like passing the clicker).

Feel the expansion happening from shoulders-body. Not hand-fingers. Do NOT release. Repeat several times.

NOTE: Preferably, do this exercise in front of a mirror, observing a correct expansion (without body or shoulders rotation). When mastered, repeat with eyes closed.

https://youtu.be/_Y17nOHJuug
With no arrow, take your bow and close your eyes. Proceed the bow drawing sequence with closed eyes, feeling the movement of your arms-shoulders until full draw. Then produce the expansion gently and in balance with both arms-shoulders. You should feel your shoulders separating while string position on your face is fixed (string not sliding). Feel the smooth and balanced expansion for 2-3 sec.

NOTE: Avoid any deformation of your body nor increase of tension on string fingers while expanding. Hands should be as relaxed as possible during the entire sequence. Head should be as fixed and stable during the expansion.

https://youtu.be/sboWxfcsmHg
With arrow. Take your bow and follow the drawing sequence. Same action as a regular shot but when the clicker sounds, no shooting... but continue expanding for 5mm (to 1cm maximum) after the clicker. Then either:

a) stop the expansion for 1 second, and then release the arrow keeping your back tension.
b) Or... don't shoot, go back to start position and repeat the shooting sequence again after a 10” rest.
c) When mastered, you can repeat the exercise but releasing after 5-10 mm expansion with no stop. Releasing during the movement of expansion.

IMPORTANT NOTE:
Always place a target matt in front of you at a short distance.
BE AWARE that the arrow could be released unintentionally when the clicker sounds. If you get surprised and lose your full draw position, do not worry. Just go back to your full draw position, make sure the arrow is still correctly placed over the arrow rest and resume the exercise. After some repetitions, the surprise movement will disappear.
Use your bow hand fingers to hook the string hand fingers as indicated in the photo. Bow hand fingers keep resistance to the string hand fingers.

Create tension in your back by having bow arms pushing in opposite directions (as expanding an imaginary bow)

After tension is created, make the “string release” and feel how the string fingers keep the same shape and tension as before. Avoid open fingers or relaxed string fingers

NOTE:
Keep simulating the release with closed eyes to physically feel the release process.

https://youtu.be/QxG_qr7j1-Y
Same exercise as before but using an elastic band.

Release the elastic band and complete the follow-through with relaxed string fingers and wrist (but keeping the same hand-finger shape). The string elbow should:

- move backward and horizontally.
- keep the same angle.

During and after the release, the head, shoulders and the entire body (not arms) should remain unchanged and in the same orientation as before the release. Repeat several times.

NOTE:
To be implemented first in front of a mirror, and then eyes closed to feel the release step better physically.
Use your string hand index finger and hook it in the bow hand palm as indicated in the photo. Apply a slight pull back action.

Release the index finger and feel and watch how the relaxed bow hand moves forward in a natural reaction movement.
Repeat several times.

https://youtu.be/UScNOon668Ew
Same exercise as before but using an elastic band.

The bow hand wrist must be relaxed on the grip.

Grab the elastic band with the string hand as indicated in the photo. Follow the drawing sequence with the elastic band close to your full draw. Relax the string hand and feel during several bands stretching movements how the bow hand is relaxed. After some repetitions, let the elastic band go. Observe the constant relaxation of the bow hand, including when it drops down and forward upon the release of the elastic.

Repeat several times and master this movement-feeling.
With bow and arrow (and no clicker loading), plus finger sling. Place yourself very close to the target (about 50 cm after the end of the long stabilizer).

Draw the bow 2/3 of full draw (draw 20~30cm) or close and a little lower than the chin (to avoid hitting the chin upon release). Release the string during the end of the draw action, while in movement. Observe and feel the constant relaxation of the bow hand during the release and the bow movement. Repeat several times.

**NOTE:**
Make sure the arrow does not miss the target.
With bow, arrow and finger sling. Close distance to the target.

Find the way to firmly fix a soft elastic band on the right and left side of the target (same height as the bow arm when at full draw) or to a fixed structure close by. Make sure the target matt is also firmly fixed to the ground and cannot fall when the elastic band stretches. Fix the elastic band on the V bar extension or the bow grip. Separate a bit from the target, ensuring that the long stabilizer does not hit the target, as indicated in the photo.

Follow the shooting sequence watching the bow arm during the expansion and watching/feeling the bow arm-hand movement toward the target. Enjoy the feeling of the direction of the bow.

NOTE: When you have mastered the “art” of keeping the bow wrist and fingers relaxed, try the shot without elastic band keeping the same feeling.

https://youtu.be/h-qDsN1xzEs
With eyes closed, come to full draw and clearly feel the contact points at your anchor position. These should be in this order:

1. Upper side of the index finger to the lower part of the chin.
2. String at the same time on the chin-lips-tip of the nose.
3. Inner side of the thumb, situated along the hand palm touching the neck.

The goal is to clearly and consistently feel these contact points. Repeat until the exercise and position is mastered.

**NOTE:** The second goal is to find the right head position to ensure that no head adjustment movement is needed to get to these contact points. Facial references should be achieved without any head movement.

https://youtu.be/T74-vEHM1KI
#38 Proprioception

Use two “Stability or Balance discs” and stand over them (at your standard shooting position stance).
Place a target face or locate a point to aim at. Without arrow, proceed to the shooting sequence until full draw and hold for a few seconds keeping your balance as stable as possible while aiming at the target.

NOTE: First do with no arrow and expanding for a few seconds while aiming and keeping your balance. When comfortable, place an arrow and target matt and repeat this exercise but shooting the arrow.
The WAEC Coaches wish you a GOOD PRACTICE, hoping these exercises help you to grow in Archery during this “interesting” period.