

ROCK CLIMBING ASSIGNMENT

“Challenge by Choice” Cards

“Challenge by Choice” cards describe climbing technique and skill drills for you to practice while you are at the wall climbing station.

The “choice” part is not in whether or not you will do them, but *which* route and *how high* off the ground you will practice the drills *at* (in other words, you will choose your own level of difficulty).

Every time you are at the “Wall” station you must:

- Select and carefully read a “Challenge by Choice” card.
- Practice the drill for 5-10 minutes.
- Each group should be able to practice 3-4 different “Challenge by Choice” cards each day.
- You are responsible for the content of the cards for the test at the end of the unit.
- On your final climbing day, you will be spot-tested on the challenge card concepts/skills.

Challenge by Choice Card 1

Stem Drill

Regardless of the speed of climbing, climbers who look for and take rests will do better than those who do not. Learning to spot and take advantage of rest spots is a very important technique in rock climbing. Too many climbers think they can muscle up a wall.

Challenge: While climbing a route, position yourself in a well-balanced resting position and hold for no less than 1 minute. Ask your belayer to time you. Repeat. Shoot for 3-4 rest points per route. Shake out your arms between each climbing series to prevent getting too pumped. Be sure to alternate hands at the next stem to work both arms.

- *Stemming* - involves bracing your body with a straight arm and with feet bridging the distance between two opposing footholds. Good for resting, chalking up, or shaking out the lactic acid in an arm.

Challenge by Choice Card 2

Speed Climb Drill

In general, climbing moves that are dynamic and require a lot of upper body strength (e.g. grip, arm, etc) should be done quickly. Save your upper body and use the momentum to help place your body mass at the *deadpoint*.

Challenge: Time yourself and try to beat your previous time while keeping your movements smooth and fluid. Challenge others to beat your time. Remember . . . no assistance from your belayer!

- *Deadpoint* - A dynamic climbing technique in which a hold is grabbed at the very apex of upward motion, thereby placing the smallest possible load on the hold.

Challenge by Choice Card 3

Endurance Drill

Endurance Drill. *Bouldering* requires strength moves, *free solo climbing* requires endurance. *Sport climbing* and indoor climbing combine both strength *and* endurance.

Challenge: (Downclimb Drill) This drill is especially useful if you ever get stuck while *lead climbing* an outdoor route that proves to be too difficult, and you need to retrace your climbing route to get back on track. Hey, it happens more often than you'd think! A great way to challenge yourself and build up climbing endurance is to try climbing down a route you've had an easy time going up. Be sure to let your belayer know that you want a little slack.

- *Bouldering* - To climb short, hard routes on low-lying rocks without protective gear. Traversing.
- *Downclimb* - To descend a mountain or a rock face without weighting a rope; often accomplished without protection, and hence potentially the most dangerous part of a climb.
- *Lead Climbing* - To be the first climber up a pitch, placing protection in the rock along the way while being belayed by a partner from below.
- *Free Solo Climbing* - To climb with no protective devices whatsoever, relying solely on strength, agility, technique and an ability to accept or ignore the consequences of long falls from high places.
- *Sport Climbing* - Ascending routes of extreme gymnastic difficulty protected by closely spaced bolts.

Challenge by Choice Card 4

Quiet Feet Drill

A.k.a. the "Cat Burglar" Challenge. Quiet feet are an important element of good footwork. Quiet feet do not expend valuable energy slamming or scraping onto a foothold. Instead they are deliberately set with precision ("look" the feet onto each hold).

Challenge: With a bear bell affixed to each shoelace, attempt to climb a route without making a sound.

- Footwork Tip - When you place your foot on a hold, do not move it around. You should anticipate foot placement to set you up for your next move.

Challenge by Choice Card 5

Balance Drill

The starting point for developing a good rock climbing technique begins with your sense of balance, and how you control your balance on the wall ("Fat over Feet" principle). A good sense of balance is the key to moving smoothly and making difficult climbing moves appear effortless. The center of mass is approximately the middle of your body, around your belly. By being conscious of your center of gravity when you make a climbing move, you can avoid undue strain on hands.

Challenge: See how many more moves you can make than your partner with one hand behind your back. This requires you to be in a balanced position with your *fat over your feet!*

Challenge by Choice Card 6

Body Position Drill

BODY POSITION DRILL – Keep your body close to the wall! The more your knees point into the wall the further your center of gravity will be out away from the wall and the more strain you will place on your hands.

Challenge: Climb a route with knees always pointing to the right (edging). Then try the same route with knees only pointing to the right. Finally, try the route a third time with knees pointing directly at wall (front pointing).

- *Edging* – A climbing technique in which the inside and outside edges of the climbing shoes are used to stand on small footholds.
- *Front Pointing* – A climbing technique in which the toe of the climbing shoes are used to stand on the footholds and the knees point toward the wall.

Challenge by Choice Card 7

Static Climbing Drill

Static movement is making a move where body position is controlled by muscle movement, rather than by momentum. How you shift your body weight upwards, downwards, left or right as a general rule will help you gain control. Move your body when all four points, *both* feet and *both* hands, are planted. Good technique in climbing movement is to think of it in two parts: **1) move limbs, 2) shift body weight; repeat this sequence.** Avoid shifting weight and moving a limb at the same time. Use your arms for balance and your legs to hold your body weight.

Challenge # 1 (Assume the Position): Stand with feet shoulder width apart and both palms flat against a wall as if you are "under arrest". Now lift either foot as if to place it on a higher foot hold. What happens? To lift your foot with confidence you have to shift your hips so that your weight is on the stationary foot before unweighting the foot you intend to move. Seems simple, yet when most climbers are climbing they do not shift their weight onto the stationary foot before moving the other foot. The result is that they must "hang" from their hands while they move their feet. It's a small amount of effort, but it adds up with every step.

Challenge # 2 (the Patriot): Whenever you are moving from one foothold to another, first shift your hips, then lift the foot you wish to move and allow the foot to "flag" (not rest on any hold) and feel the balance point where your weight is fully on the stationary foot. Take your time and really strive to put the least amount of weight on your hands as possible. Move to the balance point *before* you lift the foot!

Challenge by Choice Card 8

Dynamic Climbing Drill

(A.k.a. Power Moves Drill) – Dynamic climbing techniques involve the use of momentum to reach a hold that is further than can be reached using a stationary movement. There are two essential dynamic climbing methods: deadpoints and dynos.

Challenge # 1: In a manner similar to the old game show “Name that Tune” determine how many holds it will take you to reach the top of the wall. Then use dead pointing and dynos to climb the route without touching any more holds than what you declared. Your partner would then attempt to climb the wall in one less move than you used. Object is to climb a route in as few moves as possible.

Challenge # 2: Play “Elimination”. Climb a route while partner/belayer chooses 3-4 (or more??) holds (or hold colors) that you must not use on your climb. The catch is that he/she must be able to make the climb without the holds him/herself or they will lose the challenge.

- *Deadpoint* - The deadpoint is the point at which gravity forces your dying momentum downwards after a vertical lunging move. At the dead point, your hand should be at the top of the lunge *and* at the hold. At this point your upward direction has stopped and you to get a grip on the hold before your weight begins to settle.
- *Dynos* – A climbing technique to secure holds that are completely out of reach and can only be attained by a totally committed lunging move/spring. Feet leave wall.

Challenge by Choice Card 9

Footwork Drill

Being able to find friction from a minor texture feature is key to overcoming many a *crux*. *Smearing* is one key technique used by climbers to overcome sections on a route that lack quality hand or foot holds.

Challenge: Attempt to climb as many routes as you are able without using *any* footholds. You may only use the textured features and natural contours of the wall.

- *Crux* – The most difficult section of a climbing route.
- *Smearing* – A climbing technique that involves applying to a rock slab as much of the sole of the climbing shoe as possible to achieve maximum friction.

Challenge by Choice Card 10

Falling Drill

No matter how good you are, you will eventually fall. If you don't, you are not pushing yourself to your limit. Falling is part of climbing and it is a skill to learn just like any other aspect of good climbing technique. There is a basic fear of falling in humans, which is part of the underlying thrill of climbing. This fear may be debilitating to people new to climbing, but as you get more experience with falling the more comfortable you will become.

Challenge: Tell your belayer you are going to take a practice fall. Take a deliberate fall in a safe spot along a route. Have him "take" and "lock off", then push off in a controlled way, away from the wall, and let the rope come tight. Then say to yourself, "that wasn't so bad", and get back on the wall. There are some basic techniques you can use to help you get over this fear and help you take a fall safely. So, make sure you are ready for the fall at any time by using these techniques:

- Triple check that your harness and knot are secure.
- Ensure the rope is clear of your gear and feet/arms at all times. Don't let the rope loop on anything, ever!
- Be aware of what's below you as you climb. Landing on bolt or a big hold can cause some serious pain.
- Push out away from the wall at the moment you slip. Control how you fall keeping your feet down.
- Keep your feet out in front of you to catch the wall as the rope comes tight and you swing in.

Challenge by Choice Card 11

Handgrip Drill

While the main power for upward movement in climbing comes from the legs and feet, the hands are key to keeping a climber balanced! Too many climbers expend valuable energy clutching holds or inefficiently hanging and pulling their body weight up the wall with their hands. All that is really required with your grip is to contact the hold for balance (or, more rarely, in an overhanging situation, to hold your body in place with the least amount of energy). Remain conscious of your grip and the strength you use to hold yourself in place to make your movement more fluid and improve your endurance, balance and climbing performance.

Challenge: Climb a route and have partner call out one of the following grips for you to make your next move with. All grips must be used before the end of the route. This drill forces the climber to develop “push” skills (as with the open hand) as well as “pull” skills.

- *Crimp* – Best on small to medium sized holds. Relies on finger strength. Thumb wraps over fingernails.
- *Cling* – Good for horizontal or vertical holds. Wrap fingers (up to the second joint) over the edge of a sharp-edged hold. A solid, secure grip.
- *Palming* – For large, wide and sloping holds. Relies more on the friction between the hand and rock. Often used with hands below shoulders.
- *Pocket* – Can be used with whole hand or just one finger. Involves jamming, twisting and wedging part of hand into a pocket in the rock face.
- *Pinch* – A grip for vertically running holds. Involves pinching a fold or wedge in the rock.

Challenge by Choice Card 12

Bent vs. Straight Drill

Which is better climbing technique, bent arms or straight arms?

Challenge: Climb a route as you would normally, first (i.e. w/ bent arms). Then try climbing the same route with arms straight (you may even try wearing plastic pipe or magazines around your elbow joint???). Manoeuvre and manipulate your feet and hips to ensure that your arms are straight throughout the climb.

Note: There will always be situations where keeping arms straight is impossible, however, the general rule is to try and keep the arms straight as much as you can and move your *feet* into position to reach the next hold, pull up momentarily to reach the hold, then arm(s) straight again to move feet and so on. This helps you in lots of ways but the most important benefits are reducing the muscular effort from your arms and being able to see what's going on at your feet much better than if your face is pulled hard against the wall.

Challenge by Choice Card 13

Visualization Drill

Establish the habit of visualization early in your gym climbing career.

Challenge: Before you even start climbing, step back from the route and take a look at all the hand and foot holds available to you. Mentally walk through the route, deciding what hand or foot will go where, what moves you will have to do in what order, and where the crux of the climb is likely to be. Then after you've tried the route once in what you feel is the proper sequence, try skipping a hand hold or foot hold and see what it does to the difficulty of the route.