

Monroe Community College Lesson Plan Form -

Unit: Muscular Strength and Endurance, and Explosiveness – HIIT Sprinting

Teacher/Class: Shamir Tucker

Date: 3/3/2020

Grade: College **GLSP/Game Stage:** All Levels

Number of SS: 20 Lesson #4

Lesson Focus: Have the students do a HIIT workout geared towards developing the muscles used for sprinting to build muscular strength and endurance which will help them obtain more frequent explosive power that they could utilize in their sport.

Location: Gym__ Field_X_ Wt. Rm.__ Pool__

Other (name):

References (APA)

Warm-up and Main Activities

McCall, P. (2014, September 11). The Benefits of Speed Training for Non-athletes. Retrieved March 4, 2020, from <https://www.acefitness.org/education-and-resources/lifestyle/blog/5030/the-benefits-of-speed-training-for-non-athletes>

Andrews, E. (2016, March 15). Explosive Plyometric Workout. Retrieved March 4, 2020, from <https://www.acefitness.org/education-and-resources/professional/expert-articles/5869/explosive-plyometric-workout>

Cool Down Stretches

McCall, P. (2013, December 11). Post-run Stretches With the Flex-Band. Retrieved March 5, 2020, from <https://www.acefitness.org/education-and-resources/lifestyle/blog/3658/post-run-stretches-with-the-flex-band/>

Vocabulary

McCall, P. (2014, September 11). The Benefits of Speed Training for Non-athletes. Retrieved March 4, 2020, from <https://www.acefitness.org/education-and-resources/lifestyle/blog/5030/the-benefits-of-speed-training-for-non-athletes>

Merriam-Webster. (n.d.). Stride. In Merriam-Webster.com dictionary. Retrieved March 4, 2020, from <https://www.merriam-webster.com/dictionary/stride>

TEACHING APPROACHES USED IN THIS LESSON:

☒ Direct/Interactive ☐ Child-Designed
☐ Peer Teaching ☐ Guided Discovery (check one):
☐ Task Teaching ☒ Divergent Inquiry OR
☐ Cooperative Learning ☐ Convergent Inquiry

Common Core/Academic Connections

VOCABULARY (list, define terms that are the focus of lesson):

H.I.I.T.-high intensity interval training

Stride- to move over or along with or as if with long measured steps

Language Function (Cognitive action verb):

Explode

Sprint

Stride

Walk

Jog

Rest

SYNTAX and/or DISCOURSE (explain how will be utilized):

New York State Learning Standards

STANDARD 1 – PERSONAL HEALTH AND FITNESS

☐ 1a. Students will perform basic motor and manipulative skills. Students will attain competency in a variety of motor and sports activities.

☐ 1b. Students will design personal fitness programs to improve cardio respiratory endurance, flexibility, muscular strength, endurance and body composition

STANDARD 2 – A SAFE AND HEALTHY ENVIRONMENT-

☐ 2a. Students will demonstrate responsible personal and social behavior while engaged in physical activity.

☐ 2b. Students will understand that physical activity provides the opportunity for enjoyment, challenge, self-expression and communication.

☐ 2c. Students will be able to identify safety hazards and react effectively to ensure a safe and positive experience for all participants.

STANDARD 3 – RESOURCE MANAGEMENT

☐ 3a. Students will be aware of and able to access opportunities available to them within their community to engage in physical activity.

☐ 3b. Students will be informed consumers and be able to evaluate facilities and programs.

☐ 3c. Students will also be aware of career options in the field of physical fitness and sports.

NATIONAL P.E. STANDARDS

- ☐ 1. The physically literate individual demonstrates competency in a variety of motor skills and movement patterns.
- ☐ 2. The physically literate individual applies knowledge of concepts, principles, strategies and tactics related to movement and performance.
- ☐ 3. The physically literate individual demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.
- ☐ 4. The physically literate individual exhibits responsible personal and social behavior that respects self and others.
- ☐ 5. The physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction.



LISTENING

X



SPEAKING

—



WRITING






—



READING

—

NYS AHPERD CURRICULAR STRANDS INCORPORATED INTO THIS LESSON (check all that apply):

(Affective) 	(Psychomotor, Cognitive)  X	(Affective, Cognitive)  X	(Cognitive, Affective) 	(Psychomotor, Cognitive) 
2a. Character	1b. Health-Related Fitness	2b. Individ. Enjoyment	2c, 3a,b,c. Life Skill Dev.	1a. Skilled Play

Equipment needs (list all, including media, and state quantity needed):

- 16 Sports Water Bottles filled up with cold water for the water break.
- 2 Water bottle holder containers (Make sure they both can hold 8 bottles each)
- 3 Cones
- 20 Flex Bands
- 1 Timer
- 21 Pens
- 1 Stationary Bike

Safety considerations:

- Emergency Communication
- Emergency Plan
- Inspect Facility
- Inspect Equipment
- Appropriate Apparel
- Appropriate Footwear
- Always remind the athlete with the broken arm to be mindful of their arm.
- Have a Med-kit
- Remind the athletes to make sure they are running in a straight line and are at least an arm spans width away from one another to avoid possibly colliding with each other.
- Remind athletes to make sure their sneakers are tied tightly to avoid tripping on laces.
- Remind athletes to drink water during the water break to stay hydrated and tell them not to drink too much to avoid cramps.

Student Learning Objectives (SLO's): <i>Through participation in this lesson, a student will learn the following:</i>	Assessment Tool Instrument (checklist, rubric, rating scale) and Type of assessment used (i.e. in-/semi-/formal)
Psychomotor Objective(s): TSWBAT: Perform striders at 70-80% of their max sprint speed the whole length of the field and perform sprints to half the length of the field at 100% of their max speed in a HIIT workout.	Visual Checklist
Cognitive Objective(s): (Be sure to highlight task[s] addressing this in YELLOW) TSWBAT: Know the different physical and mental effects they personally feel between 70-80% of their max speed and a 100% full effort sprint at max speed. They also will recognize this a style of workout they can use to improve their muscular strength, endurance, and explosiveness for sprinting.	Exit Slip presented at the end of class.
Affective Objective(s): (Be sure to highlight task[s] addressing this in GREEN) TSWBAT: Feel confident that this style of workout has helped them improve their muscular strength, endurance, and explosiveness for sprinting which they can use in the future to help improve their performance at their sport.	Exit Slip presented at the end of class.

UNIVERSAL DESIGN: Explain how/what accommodations will be made for individual students/small groups/class so that all athletes can be successful? One athlete has a broken dominant arm and is cleared to participate but is not allowed to do anything requiring contact. Due to the fact the class will be performing high intensity sprints and running in general, to neutralize the chance of the athlete moving the broken arm too much and/or possibly falling or colliding with someone, the athlete will perform the 70-80% striders and 100% max sprint on a bike brought out to the field.

TEACHER GOAL FOR THIS LESSON:

Sequence of Lesson (Be sure to do the following: a) highlight your cognitive and affective tasks, b) include transitions c) time of task, d) safety)	Organization
<p><u>Introduction: Attendance, explanation of the workout and vocabulary, and explain safety precautions (3 minutes)</u></p> <ul style="list-style-type: none"> The field should already be set up before class with the 3 cones across the middle of the field splitting it in half length wise. Also, the stationary bike should already be on the field behind the out-of-bounds line width wise at the starting location for everyone else for the athlete with the broken arm to use. The 16 water bottles should also be next to the stationary bike. There should be a cone on both ends of the middle and one directly in the middle of the MCC Tribunal logo with the 20 Flex Bands in the same exact position of the middle cone so they will be out of the way. As athletes enter the turf field through the gate, they will be directed to sit in a circle around the MCC Tribunal logo in the middle of the field, so attendance can be taken and everything regarding the workout explained to them. The instructor will wait until every athlete is in attendance before starting their explanation. <ul style="list-style-type: none"> Tell the athletes they will be engaging in high intensity interval training (HIIT) today to improve their muscular strength, endurance, and explosiveness for sprinting. Explain what a strider (stride) and sprint is to the athletes then demonstrate both. The instructor will tell <i>ALL athletes to go and line up on the out-of-bounds line next to the stationary bike, and make sure they are all arms span distance away from one another and to face forward at the instructor. (Pink)</i> 	<div style="text-align: center;"> AAAAAAAAAA C AA LF,C,I AA C AAAAAAAAAA </div> <hr/> <div style="text-align: center;">W,B</div> <p> A=Athlete I=Instructor B=Stationary Bike C=Cone L=Mcc Tribunal Logo W=Water F=Flex Bands ____=Out-of-Bounds Line See Diagram 2 for Field Set-up </p>
<p><u>Warm-up: Basic Warm-up Drills (5 minutes)</u></p> <ul style="list-style-type: none"> Instructor will make sure all athletes are an arms span width away from one another before proceeding to do the warm-up. (Pink) Instructor will show a quick demonstration of all warm-up activities so the athletes will know what to do when the instructor asks them to perform the task. Before moving onto the next set and/or activity the instructor must wait for every athlete to be finished and ready to proceed. Some of these activities will require some arm movement. It is not completely necessary to do the movement(s) and can be done without it. So, keep this in mind for the athlete who has the broken arm. <u>Complete two to three sets of each exercise before moving to the next one:</u> <ul style="list-style-type: none"> <u>Spider Stretches-</u> Hold a high plank and bring your right knee up to the outside of your right elbow while keeping your left leg straight behind you. Hold for three to four seconds and switch legs. The movement should be slow and steady, focusing on stretching the hip of the extended leg. Perform eight to 10 reps on each leg. <ul style="list-style-type: none"> <u>Instead of the above activity, modification for athlete with broken arm: Alternating Lunge Jumps-</u> Start in a lunge position with the right foot forward and the left leg behind. Lower the back knee to the floor as the arms swing in front of the body. Propel upward, lifting both feet from the ground and quickly switching the foot position (the left foot should now be in front). The arms will come down toward the hips as you lift. Repeat, alternating legs each time. Do 10 each leg. <u>Bouncing-</u> Stand in place with your knees slightly bent and bounce up and down on the balls of your feet. While most of your weight should be in the balls of your feet, allow your heels to lower all the way to the ground between each repetition. Perform 12 to 15 reps. <u>Jumping Jacks-</u> Perform 12 to 15 reps, resting 15 seconds between sets. <u>For the following exercises, use approximately 5 to 10 meters of running space. Complete the rep and walk back to the starting position for an active recovery before the next rep. Complete two to three reps of each exercise before moving to the next one.</u> <ul style="list-style-type: none"> <u>Fast Feet and Arms-</u> Stay on the balls of your feet and move your feet and arms as fast as possible. The goal is to have as many foot touches as possible from the start 	<div style="text-align: center;"> C L,C,F,I C AAAAAAAAAAAAAAAAAAAAAA </div> <hr/> <div style="text-align: center;">W,B</div> <p> A=Athlete I=Instructor B=Stationary Bike C=Cone L=Mcc Tribunal Logo W=Water F=Flex Bands ____=Out-of-Bounds Line See Diagram 1 for warm-up </p>

<p>to the finish. Keep your feet close to the ground and your elbows close to your body and bent at 90 degrees (the movement should be from your shoulders, not elbows) for optimal mechanics. 10 seconds each.</p> <ul style="list-style-type: none"> ○ Lateral Shuffle- Keep your feet parallel and move sideways from the start to the finish. <i>Make sure that all athletes turn their body sideways all facing the same direction so that they can shuffle towards the middle of the field and then back to line.</i> 5 shuffles away from then back to the line. ○ High Knee Running- Pick your knees up high while pulling your ankle directly up to your tailbone (almost like pedaling a bicycle). Emphasize leaning forward while driving your arms back explosively during the movement. 10 seconds each. • <i>Direct athletes to stay at their position on the line and direct the athlete with the broken arm to go take a seat on the stationary bike. Tell them they will now be moving into the main activity.</i> <p>McCall, P. (2014, September 11). The Benefits of Speed Training for Non-athletes. Retrieved March 4, 2020, from https://www.acefitness.org/education-and-resources/lifestyle/blog/5030/the-benefits-of-speed-training-for-non-athletes</p>	
<p>Main Activities (May take several sequence boxes)</p> <p>Activity 1:</p> <p><u>HIIT Sprints (10 minutes total, 30-45 seconds of rest)</u></p> <ul style="list-style-type: none"> • Tell athletes that they will now be doing <i>100% max speed sprints in a straight line to the middle of the field where the cones are located and then WALKING back to their starting position</i> to reset and get ready for their next sprint. • The athlete on the stationary bike must pedal at 100% max speed until the last sprinter has reached the middle line on the field, then they will be able to rest for the 30-45seconds. This is because the athlete on the bike doesn't have any distance to cover to reach a stopping point, so to make sure they are getting an effective and equal workout they must go 100% until the last athlete on foot has reached the middle. • Make sure the timer is set for 10 minutes for the activity. The 30-45 seconds of rest will start to be counted once the first athlete has reached the middle line. Since, it is not a large distance being covered there will not be a huge enough time difference that all athletes are not getting proper rest. Make sure to count the seconds of rest as it goes down on the timer. • The goal should be speed of movement, not distance covered. Run at 100 percent effort and then walk back to the start and rest for approximately 30 to 45 seconds. • Pay attention to all of the athletes and determine if they are showing maximal effort and participation. Keep track of this on the visual checklist. • The 10minute time limit may or may not be passed depending on whether the athletes have enough time to do another sprint. If they do have enough time to do another sprint, they will not pass the 10minute mark by much. This is fine. • Once all athletes are done with their sprints, instead of walking back to their starting position, <i>direct them to the water bottles by the stationary bike so they could get a quick drink of water to stay hydrated then return back to their positions on the line to begin the next activity.</i> Inform them to not drink too much water to avoid cramps and to replace the water bottles back into their holder. <p>Activity 2:</p> <p><u>Striders (10 minutes, 30-45 seconds of rest)</u></p> <ul style="list-style-type: none"> • Start with a longer distance and have the athletes run at approximately 70 to 80 percent of their max running speed. Have the athletes <i>run the stride from the line they are at to the same exact spot on the line on the opposite side of the field to them in a straight line.</i> Immediately upon reaching the opposite line have the athletes do a light jog in place for active recovery. Allow at least 30-45 seconds between strides. Once the 30-45 seconds of rest is over, <i>they will stride across the field again in a straight line back to their starting</i> 	<p>C L,F,C,I C</p> <hr/> <p>AAAAAAAAAAAAAAAAAAAAA</p> <hr/> <p>W,A,B</p> <p>A=Athlete I=Instructor B=Stationary Bike C=Cone L=Mcc Tribunal Logo W=Water F=Flex Bands ____=Out-of-Bounds Line</p> <p>See Visual Checklist.</p>

<p><i>positions. Repeat this process. Remind athletes to focus on maintaining good form and not being out of breath.</i></p> <ul style="list-style-type: none"> • Make sure the timer is set for 10 minutes for the activity. The 30-45 seconds of rest will start to be counted once the first athlete has reached the opposite line. Since, they are doing active recovery and the overall intensity is lower, the amount of recovery should be fairly equal. Make sure to count the seconds of rest as it goes down on the timer. • The athlete on the stationary bike must pedal at 70-80% max speed until the last strider has reached the opposite line on the field (the instructor should assist with communication to let the biker know when this happens just in case they can't see that far), then they will pedal at slow to moderate pace for active recovery until the 30-45 seconds of rest is over. This is because the athlete on the bike doesn't have any distance to cover to reach a stopping point, so to make sure they are getting an effective and equal workout they must go 70-80% until the last athlete on foot has reached the opposite line. • Pay attention to all of the athletes and determine if they are showing maximal effort (70-80% for this activity is maximal effort) and participation. Keep track of this on the visual checklist. • The 10minute time limit may or may not be passed depending on whether the athletes have enough time to do another stride. If they do have enough time to do another sprint, they will not pass the 10minute mark by much. This is fine. • <i>Have one athlete on both sides of the field to grab a cone to bring back to the middle cone. Ask one athlete and the athlete on the stationary bike to grab one of the water holders with the water bottles to bring to the middle cone. Remind the athletes to get a drink of water and to circle up around the middle like they did in the beginning of class and make sure they are an arms span width distance away from one another. Ask athletes to grab a flex band and get ready for the cool down stretches.</i> <p>McCall, P. (2014, September 11). The Benefits of Speed Training for Non-athletes. Retrieved March 4, 2020, from https://www.acefitness.org/education-and-resources/lifestyle/blog/5030/the-benefits-of-speed-training-for-non-athletes</p> <p>Andrews, E. (2016, March 15). Explosive Plyometric Workout. Retrieved March 4, 2020, from https://www.acefitness.org/education-and-resources/professional/expert-articles/5869/explosive-plyometric-workout</p>	<hr/> <p style="text-align: center;">C L,F,C,I C</p> <hr/> <p style="text-align: center;">AAAAAAAAAAAAAAAAAAAAA</p> <hr/> <p style="text-align: center;">W,A,B</p> <p>A=Athlete I=Instructor B=Stationary Bike C=Cone L=Mcc Tribunal Logo W=Water F=Flex bands ____=Out-of-Bounds Line</p> <p>See Visual Checklist.</p>
<p><u>Cool Down(3-5minutes):</u></p> <ul style="list-style-type: none"> • Cool Down Activity: The athletes will be going through a series of stretches with flex bands for post running cool down. • Cool down stretches: (The instructor will help the athlete with the broken arm do the stretches by holding the band for them whenever they must use their dominant broken arm to perform it.) • <u>Standing Calf Stretch-</u> Place your right leg out straight while keeping the knee extended. Place the band around the widest part of foot; pull back on the band and hold for 15 seconds. Push your foot into the band for five seconds; relax and pull your foot back into a new range of motion (ROM). Repeat for two cycles of contracting and relaxing before switching to the left foot. • <u>Standing Quadriceps, Hip Flexors and Triceps Stretch-</u>Place the band around the top of the right foot. Pull your heel up to your right tailbone (or as close as possible) and keep your knee pointing straight down into the ground. Hold the band in your right hand and point your elbow up toward the sky. Once you're pulling your foot up, slowly move your thigh back behind you to increase the stretch in the front of the thigh. Hold the stretch for 15 seconds and then slowly press your foot into the band to straighten the leg (but don't straighten all the way). Hold for five seconds and then release and pull your foot back into a deeper ROM. Repeat for two cycles of contracting and relaxing before switching to the left leg. • <u>Lying Hamstrings Stretch-</u>Lie flat on the ground with your left leg out straight and place the band around the back of the right heel. With your right leg straight, slowly pull your leg back until you feel a slight resistance from your muscles. (Do not let your knee bend; <u>push the back</u> of your left leg into the ground for an additional stretch). Hold the stretch for 15 seconds and 	<p style="text-align: center;">AAAAAAA</p> <p style="text-align: center;">C AA L,F,C,I AA C</p> <p style="text-align: center;">AAAAAAA</p> <hr/> <p style="text-align: center;">W,B</p> <p>A=Athlete I=Instructor B=Stationary Bike C=Cone L=Mcc Tribunal Logo W=Water F=Flex Bands ____=Out-of-Bounds Line</p> <p>See Diagram 3 for stretches.</p>

<p>then push your heel down for five seconds while pulling back on the band. Relax and pull your leg into the new ROM (as you're moving into the new ROM squeeze your thigh muscles, this will allow the hamstrings to stretch a little further). Repeat for two cycles of contracting and relaxing before switching to the left leg.</p> <ul style="list-style-type: none"> • <u>Lying Hip Rotator Stretch-</u> Lie flat on the ground with your left leg out straight. Wrap the band around the outside edge of your right foot and pull it across your body with your left hand; hold your right knee in your right hand. Hold the stretch for 15 seconds and then push the outside edge of your foot into the band (moving away from your left hand). Gently push down on your knee (pushing your thigh bone into your hip socket) and hold for five seconds. Release and with your left hand pull your right foot into a new ROM. Repeat for two cycles of contracting and relaxing before switching to the left leg. • <i>Have the athletes return the flex bands back to the middle and go back to the spots they were just at to get ready for the closure.</i> Hand each student an exit slip and a pen. <p>McCall, P. (2013, December 11). Post-run Stretches With the Flex-Band. Retrieved March 5, 2020, from https://www.acefitness.org/education-and-resources/lifestyle/blog/3658/post-run-stretches-with-the-flex-band/</p>	
<p><u>Closure (5 minutes):</u></p> <ul style="list-style-type: none"> • <i>Athletes will take a seat in their spot they returned to and fill out their exit slip.</i> • Athletes will answer the question “What are the different physical and mental differences you felt between the 70-80% striders and the 100% max sprint? Is this a style of workout you can use to improve your muscular strength, endurance, and explosiveness for sprinting?” The instructor will collect once finished. • The instructor will ask the athletes “Do you feel confident that this style of workout has helped you improve your muscular strength, endurance, and explosiveness for sprinting which you can use in the future to help improve your performance at your sport?” • <i>The instructor will dismiss the athletes one by one towards the exit and tell them to follow behind the person in front of them in a straight line.</i> 	<p>AAAAAAA C AA L,F,C,I AA C AAAAAAA</p> <hr/> <p>W,B</p> <p>A=Athlete I=Instructor B=Stationary Bike C=Cone L=Mcc Tribunal Logo W=Water F=Flex Bands ____=Out-of-Bounds Line</p>

Teacher Self-Reflection
<p>How did the lesson go? What went well, or not so well? How did your students respond? Then, what specific things would you change for next time you teach this lesson?</p> <p>Any important happenings/instances/events that you should remember from this lesson? (Consider: teaching strategies, student behavior, environmental concerns, motivational techniques used, etc.)</p> <p>How well did you meet your teaching goal? Do you need to continue with this goal? What might you work on next? (Discuss in terms of the “Teacher Goal” you detailed earlier in the lesson plan)</p>

Diagram 1: Warm-Up Activities

Spiderman Stretches



Bouncing



Jumping Jacks



Alternating Lunge Jumps



Fast Feet and Arms



Lateral Shuffle



High Knee Running



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Diagram 2: The Field

Key

Cones=



Mcc Logo=



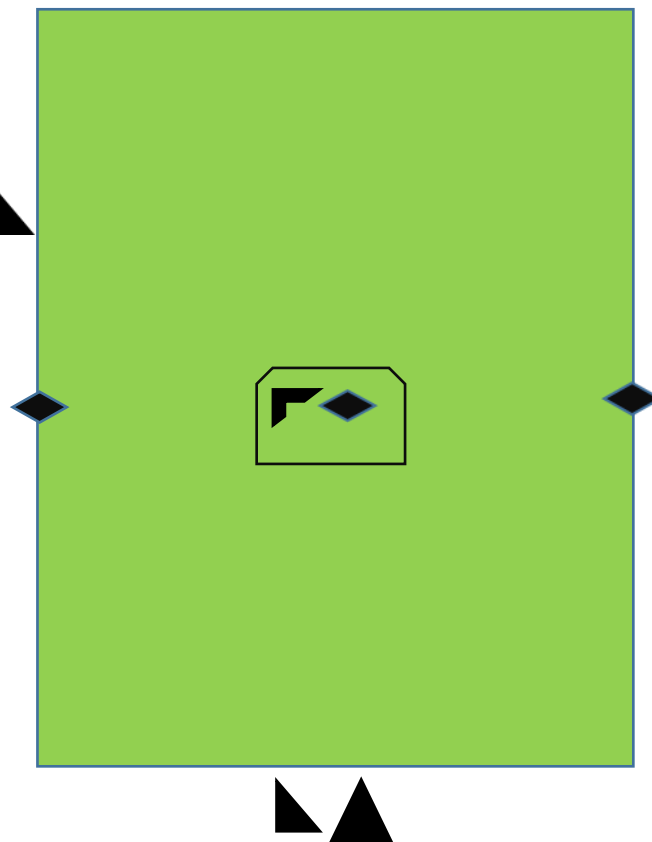
Stationary Bike=



Water Bottles & Holders=



Flex Bands=



Exit Slip

Question: “What are the different physical and mental differences you felt between the 70-80% striders and the 100% max sprint? Is this a style of workout you can use to improve your muscular strength, endurance, and explosiveness for sprinting?” The instructor will collect once finished.

Answer(s): “What are the different physical and mental differences you felt between the 70-80% striders and the 100% max sprint?”=Subjective Answers, “Is this a style of workout you can use to improve your muscular strength, endurance, and explosiveness for sprinting?”=Yes.

Visual Checklist – Rubric for Effort and Focus Shown during Main Activities

Behavior: Effort and Focus

Grade: College

Assessment: Instructor Daily Assessment

Setting: Athletes will be on the gym field doing sprints (100%) and striders (70-80%)

Directions: Write the athletes' names in the columns. Then, follow the below described levels to assess the effort and focus each athlete is displaying during the main activities.

Levels:

- 1 = Does not participate. Low to no effort and involvement for the corresponding activity. Focus is never on the task at hand.
- 2 = Athlete minimally participates. Low effort and involvement for the corresponding activity. Rarely focused on the task.
- 3 = Athlete is consistently participating. Seems to be showing an average amount of effort and involvement for the corresponding activity. Has focus on the task.
- 4 = Athlete is almost fully participating all the time. Shows very high effort and involvement for the corresponding activity. Very focused on the task.
- 5 = Athlete is fully participating all the time. Shows MAXIMUM EFFORT and INVOLVEMENT for the corresponding activity 100% of the time. NEVER loses focus on the task.

Athlete Name	HIIT Sprints (100%)	HIIT Striders (70-80%)

Diagram 3: Stretches

Standing Calf Stretch



Standing Quadriceps, Hip Flexors and Triceps Stretch



Lying Hamstrings Stretch



Lying Hip Rotator Stretch



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