



2023

Training Plan

Gremlin

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Practice Schedule (Gremlins team practice Tuesday/Thursday)

Monday	
4:30 - 6:00	Team Workout Endurance

Tuesday	Choice A	Choice B	Choice C	Choice D
4:30 - 5:15	Hurdles	Strength/Plyos	High Jump	Relay
5:15 - 6:00	Hurdles	Strength/Plyos	High Jump	Relay

Wednesday	
4:30 - 6:00	Team Workout Warrior

Thursday	Choice A	Choice B	Choice C	Choice D	Distance
4:30 - 5:15	High Jump	Long Jump	Relay	Shot Put	Recovery Run
5:15 - 6:00	High Jump	Long Jump	Speed Development	Shot Put	

GREMLIN PLAN OVERVIEW AND DEFINITIONS

This plan is a guide for planning workouts throughout the season. Because of the wide range of ability and capacity to train, there will be a need for adjustment. If there are athletes either unable to complete the workouts or complete the workout with the intended intensity/pace, the number of reps can be adjusted.

The season is broken up into three major categories: 1) early season, 2) mid season and 3) championship season. Each part of the season is meant to prepare the athletes to perform their best in the championship meets (JV Finals, Varsity Finals and beyond).

During the **early season** portion of the schedule, the majority of time is spent on developing aerobic capacity. A strong aerobic capacity will help enable athletes handle the anaerobic work in the later part of the season as well as develop general endurance. You'll notice for the repetitions, the pace is slower and the rest is shorter.

The **mid season** is where the highest volume of work occurs as well as introducing anaerobic work (speed endurance). Intensity begins to increase, while volume hits the highest point in the season.

Finally, the **championship season** sees the workload decrease, providing more rest to prepare athletes to perform their best when it counts.

Sprint vs. Distance

There are some athletes who know that they only want to run sprints (400m or below) or only distance (800m or above). Both sprinters and distance runners need to develop their aerobic system. This system will continue to improve throughout adulthood.

However, those that want to concentrate on the sprint events will spend less time developing the aerobic system and instead will focus more on anaerobic (speed endurance) and speed development. The workouts will tend to be higher in intensity and lower in volume.

Distance runners will be spending much more time on aerobic system development and more time at the (T) pace (defined below).

Sprints will be divided into short sprints (those wanting to concentrate on the 100 meters and 200 meters) and long sprints (those wanting to concentrate on the 200 meters and 400 meters). Short sprinter workouts will be somewhat shorter, with higher intensity than long sprinter workouts.

Definitions:

Speed development – Workouts that are meant to recruit muscle fibers that are responsible for running at maximum speed for a very short distance. Many people consider “speed work” to be intervals or repeats such as 400 meter repeats or 200 meter repeats, etc. This is not your maximum speed.

You’ll see on most Thursdays we’ll be doing “150m in and outs”, “30 meter falling starts”, or “50 meter hill sprints” (some of these workouts are denoted with a SD). These are not meant to be tiring, but are meant to tap into your fast twitch muscle fibers and train the nervous system to use them. This is sometimes called neuromuscular training.

The reason that your basic speed matters is that it's a window into a broader continuum of paces, i.e., speeds, that you need to run to perform your best. When you improve your basic speed, you become more efficient at the other speeds you need to hit. It also helps develop better running economy or the efficiency of running and running form/technique.

Paces:

In each workout, there is a letter in parenthesis. This letter designates the pace each repetition should be run. The specific pace can be derived by several tables (i.e. Jack Daniels running formula or the McMillian running calculator) that use race times to determine the proper pace for each athlete.

Following are the definitions:

(E) or Easy pace – this is a pace that is comfortable to run. Athletes should be able to have a conversation when running easy pace. Easy running helps build the muscle system required for running and helps develop the systems within the muscles that help deliver oxygen.

(T) or Threshold pace – running at Threshold pace is where the athlete is running at maximum oxygen consumption without developing high accumulations of lactate. Threshold training helps extend the amount of time that an athlete can run in a race without accumulating high levels of lactate (known as lactic acid).

(I) or Interval pace – is a more intense pace of running. Interval pace training stresses the oxygen delivery/processing system beyond its limit. This type of training helps the muscles learn to manage oxygen deficiency and lactate processing (buffering and consumption of lactate). This helps increase speed endurance capabilities.

(R) or Repetition pace – is the pace you would run in a race or faster (can be maximum effort). The purpose of this type of training is anaerobic efficiency along with running economy.

WARM UP DRILLS

Muscles contract faster and harder when warm versus when cold. If a high level of performance in a workout or race is expected, a warm up is required. Any movements will warm the body and raise the muscles temperature, however the warm up routines chosen below are developed to match the type of workout (i.e. aerobic warm up is designed to be done before races or hard workouts) and also to be specific to running motions and that teach and develop areas essential to efficient running technique.

The drills also act as plyometric exercises, which develop power and explosion along with building strength within running motions, which also contribute to improved running economy and form.

Following are breakouts of what each Warm Up routine contains along with URLs that demonstrate them.

Lunge Matrix

This routine can be done at the start of practice, right before the running portion, or integrated into either strength or drills.

*this routine can be seen at: <https://www.youtube.com/watch?v=TztqW3Jum50>

Sprint

- A skips 2 x 20 meters
- B skips 2 x 20 meters
- Ankling 2 x 20 meters
- Cycling 2 x 20 meters
- Fast leg right 2 x 20 meters
- Fast leg left 2 x 20 meters
- Fast leg alternating 2 x 20 meters
- Straight leg bounding 2 x 20 meters
- Bent leg bounding 2 x 20 meters
- this routine can be seen at: <https://www.youtube.com/watch?v=5F71gzoZErQ&t=182s>

Aerobic Work

- Forward skips (big arms) 20 meters
- Backward skips (big arms) 20 meters
- Lateral shuffle (big arms) 20 meters each direction
- Single leg squat 5 times then run out for 20 meters each leg
- Forward skips (arms across body) 20 meters
- Backward skips (arms across body) 20 meters
- Wide outs 5 times then run out for 20 meters (back and forth)
- Speed skater 5 times then run out for 20 meters (back and forth)
- Single mountain climber 5 times each leg then run out for 20 meters
- Retro running heel to butt 20 meters
- Double leg mountain climbers 5 times then run out for 20 meters
- Retro running heel to butt 20 meters
- Some of this routine can be seen at: <https://www.youtube.com/watch?v=11QOuilfG8k>

Stretching

There are many types and definitions of stretching. Research over the past 30 years has challenged the conventional thinking about what stretching does and what flexibility means. With the potential dangers of stretching incorrectly, as well as the limited time in Tigres, traditional post workout stretching will not be done as part of our practices.

If you absolutely feel like you must stretch, please consider doing Active Isolated Stretching during your own time. It is a method that does not involve the stretch reflex, so performance isn't compromised and if done correctly, is much safer than traditional static stretching. To learn more, please see the following video:

https://www.youtube.com/watch?v=R1gk_tHVxn4

Here is a website with links to quite a few studies related to stretching (it is primarily focused on stretching as a warm up, but much still applies in general).

<http://bretcontreras.com/what-does-sports-science-research-have-to-say-about-warming-up/>

February 6 - 12

Week 1 – *Early Season*

Day	Group	Drills	Workout	Strength
Tough Tuesday	Sprint	Aerobic Work	2 X 300M (T) 4-minute rest in between (to keep them engaged, they should walk across the field so they do not get in the habit of walking on the track) Purpose – Aerobic capacity, teach (T) pace	Crab walks (upright in both directions side to side) Bear crawls
	Distance	Aerobic Work	1 Miles (E), 1-2 x 100m stride Purpose – Aerobic capacity, running economy/form	Frog jumps
T.N.T. Thursday	Sprint	Aerobic Work Speed Ladder + Laying starts	1x800m (easy pace) with 4x50m sprints (full rest) Purpose – Speed development, running economy/form	Duck walk Reverse crab walk
	Distance	Speed Ladder	1 mile (easy pace) with 50m striders Aerobic capacity, speed development, running economy/form	Double leg hops (challenge for 10 yards - 4 jumps?) Single leg hops (switching legs on the way back) (60) Challenge - donkey kicks & balance
Saturday	Sprint	N/A	5 Minutes (E) cross country run on your own 4 x 100m strides Purpose – Aerobic capacity	
	Distance	N/A	1.5 Miles (E) on your own Purpose – Aerobic capacity	

Quote of the week: *"The will to win means nothing without the will to prepare."* -Juma Ikangaa, 1989 NYC Marathon winner

February 13 - 19

Week 2 – Early Season

Day	Group	Drills	Workout	Strength
Tough Tuesday *Long Jump	Sprint	Aerobic Work	2 x 400 (T), 2 min rest between Purpose – Aerobic capacity, teach (T) pace	Crab walks (upright in both directions side to side) Bear crawls
	Distance	Aerobic Work	7 min Oregon Drill (80m E, 80m 3200 race pace, 80 closing speed) jog to start recovery Purpose – Aerobic capacity, teaching pace and team work	
T.N.T. Thursday *Relays	Sprint	Sprint Speed Ladder + Laying starts	800 Meters (E), 4 x 120m in and outs (SD) Purpose – Speed development, running economy/form	Frog jumps Duck walk Reverse crab walk
	Distance	Speed Ladder	1.5 Mile (E), 4 x 50m sprints (SD) Purpose - Aerobic capacity, speed development, running economy/form	Double leg hops (challenge for 10 yards - 4 jumps?)
Saturday	Sprint	N/A	5 Minutes (E) cross country run on your own 4 x 100m strides Purpose – Aerobic capacity	Single leg hops (switching legs on the way back) (60)
	Distance	N/A	2 Miles (E) on your own Purpose – Aerobic capacity	Challenge - donkey kicks & balance

Quote of the week: *"The miracle isn't that I finished. The miracle is that I had the courage to start."* John Bingham - running speaker and writer

February 20 - 26

Week 3 – *Early Season*

Day	Group	Drills	Workout	Strength
Tough Tuesday *Long Jump	Sprint	Aerobic Work	2x400 (T) 90 sec rest, 2x200 (T) 60 sec rest, discuss form Purpose – Aerobic capacity, teach (T) pace	Crab walks (upright in both directions side to side)
	Distance	Aerobic Work	600 (T) 2 min rest, 3-4x400 (T) 60 sec rest Purpose – Aerobic capacity	
T.N.T. Thursday *Relay	Sprint	Sprint Speed Ladder + Laying starts	800 Meters (faster on the straights and slower on the curves), 4 x 150m in and outs (SD), discuss form Purpose – Speed development, running economy/form	Bear crawls Frog jumps Duck walk
	Distance	Speed Ladder	1 mile (faster on the straights and slower on the curves), 4 x 150m in and outs (SD) Purpose - Aerobic capacity, speed development, running economy/form	Reverse crab walk Double leg hops (challenge for 10 yards - 4 jumps?)
Saturday	Sprint	N/A	5 Minutes (E) cross country run on your own 4x 100m strides Purpose – Aerobic capacity	Single leg hops (switching legs on the way back) (60)
	Distance	N/A	2 Miles (E) on your own Purpose – Aerobic capacity	Challenge - donkey kicks & balance

Quote of the week: "Don't bother just to be better than your contemporaries or predecessors. Try to be better than yourself." -William Faulkner

February 27 - March 5

Week 4 – *Early Season*

Day	Group	Drills	Workout	Strength
Tough Tuesday * Long Jump	Sprint	Aerobic Work	3X200 (T) 30 second rest 2X100 (I) 1 minute rest Practice starts (20 m) at a time - go over which foot, explosive, starts, form Purpose – Aerobic capacity/Speed endurance	Myrtle routine <ul style="list-style-type: none"> Clams, lateral leg raise, donkey kicks, donkey whips, fire hydrant, knee circle forward, knee circle backward Pushups Core <ul style="list-style-type: none"> Forward, backward, & side planks Russian twists Superman/girls Burpees (with a jump for 5 and without for 5)
	Distance	Aerobic Work	10 minute Oregon drill Purpose – Aerobic capacity	
T.N.T. Thursday *Relays	Sprint	Sprint Speed Ladder + Laying starts	800 (E), 4 x 150m in and outs (SD) Line drill relays Purpose – Speed development, running economy/form	
	Distance	Speed Ladder	12 minutes (faster on the straights and slower on the curves), 4 x 150m in and outs (SD) Purpose - Aerobic capacity, speed development, running economy/form	
Saturday	Austin Gambill Memorial Track Meet @ Buena High School			

Quote of the week: *"We all have dreams. In order to make dreams come into reality, it takes an awful lot of determination, dedication, self-discipline and effort."* - Jessie Owens

March 6 – March 12

Week 5 – *Early Season*

Day	Group	Drills	Workout	Strength
Tough Tuesday * Long Jump	Sprint	Aerobic Work	4 x 200 (T) 2 min rest 2 x 100m (I) 2 min rest Purpose – Aerobic capacity/Speed endurance	Myrtl routine <ul style="list-style-type: none"> Clams, lateral leg raise, donkey kicks, donkey whips, fire hydrant, knee circle forward, knee circle backward Pushups Core <ul style="list-style-type: none"> Forward, backward, & side planks Russian twists Superman/girls Burpees (with a jump for 5 and without for 5)
	Distance	Aerobic Work	1 x 600m (T) 1 min rest 1 x 400m (T) 1 min rest 1 x 300m (T) 1 min rest 2 x 200m (I) 30 sec rest Purpose – Aerobic capacity	
T.N.T. Thursday * Relays	Sprint	Sprint Speed Ladder + Laying starts	800m (E), 4 x 150m in and outs (SD) Purpose – Speed development, running economy/form	
	Distance	Speed Ladder	1200 (E), 4 x 150m in and outs (SD) Purpose - Aerobic capacity, speed development, running economy/form	
Saturday	Meet #1 Tigres host Heritage Valley Blazers			

Quote of the week: *"Whether you believe you can or believe you can't, you're probably right."* -Henry Ford

March 13 - 19

Week 6 – Early Season

Day	Group	Drills	Workout	Strength
Tough Tuesday * Long Jump	Sprint	Aerobic Work	4X200 (I) 3 minute rest 40 meter fly ins Practice starts (20 m) at a time - if time permits Purpose – Aerobic capacity/Speed endurance	Myrtl routine <ul style="list-style-type: none"> • Clams, lateral leg raise, donkey kicks, donkey whips, fire hydrant, knee circle forward, knee circle backward Pushups Core <ul style="list-style-type: none"> • Forward, backward, & side planks • Russian twists • Superman/girls • Burpees (with a jump for 5 and without for 5)
	Distance	Aerobic Work	1X1000 (I) 1 minute rest 1X400 (I) 1 minute rest Practice starts (20 m) at a time - if time permits Purpose – Aerobic capacity, teaching pace and team work	
T.N.T. Thursday *Relays	Sprint	Sprint Speed Ladder + Laying starts	2X400 (I) 3 minute rest 2X200 (I) 2 minute rest 2X100 (I) 1 minute rest 2X50 (I) 1 minute rest Purpose – Speed development, running economy/form	
	Distance	Speed Ladder	14 minutes 4 x 150 in and outs Aerobic capacity, speed development, running economy/form	
Saturday	Meet #2 Newbury Park Panthers host Tigres			

Quote of the week: *"Racing teaches us to challenge ourselves. It teaches us to push beyond where we thought we could go. It helps us to find out what we are made of. This is what we do. This is what it's all about."* -PattiSue Plumer, U.S. Olympian

March 20- 26

Week 7 – Mid Season

Day	Group	Drills	Workout	Strength
Tough Tuesday * Long Jump	Sprint	Aerobic Work	Power skips, wall drills, ankle pops, knee to chest jumps 5X30 meter fly ins 3X100 (l) 3-4 minute rest (full recovery) Practice starts (20 m) at a time - if time permits Purpose – Aerobic capacity/Speed endurance	Myrtl routine <ul style="list-style-type: none"> Clams, lateral leg raise, donkey kicks, donkey whips, fire hydrant, knee circle forward, knee circle backward Pushups Core
	Distance	Aerobic Work	3X400 (l) 1 minute rest 2X200 (l) 1 minute rest Practice starts (20 m) at a time - if time permits Purpose – Aerobic capacity/Speed endurance	
T.N.T. Thursday *Relays	Sprint	Sprint Speed Ladder + Laying starts	2X300 (l) 3 minute rest 2X100 (l) 2 minute rest 2X50 (l) 1 minute rest Purpose – Speed development, running economy/form	<ul style="list-style-type: none"> Forward, backward, & side planks Russian twists Superman/girls Burpees (with a jump for 5 and without for 5)
	Distance	Speed Ladder	5 minute warm up, 5 minute focused run (slightly faster than race pace), 5 minute cool down run 4 x 150 in and outs Purpose - Aerobic capacity, speed development, running economy/form	
Saturday	Meet #3 Moorpark Striders host Tigres			

Quote of the week: *"Don't dream of winning, prepare for it."* Mo Farah

March 27 – April 2

Week 8 – Mid Season

Day	Group	Drills	Workout	Strength
Tough Tuesday * Long Jump	Sprint	Aerobic Work	Power skips, wall drills, ankle pops, knee to chest jumps 6X30 meter fly ins 4X60 meter sprints with walk back (2 min) 2X150 (I) 3-4 minute rest (full recovery) Purpose – Speed endurance	Myrtl routine <ul style="list-style-type: none"> Clams, lateral leg raise, donkey kicks, donkey whips, fire hydrant, knee circle forward, knee circle backward Pushups Core <ul style="list-style-type: none"> Forward, backward, & side planks Russian twists Superman/girls Burpees (with a jump for 5 and without for 5)
	Distance	Aerobic Work	1X200 (I) 90 sec rest 1X400 (I) 2 min rest 1X600 (I) 3 min rest 1X400 (I) 2 min rest 1X200 (I) Purpose – Aerobic capacity/Speed endurance	
T.N.T. Thursday *Relays	Sprint	Sprint Speed Ladder + Laying starts	2X300 (I) 3 minute rest 2X100 (I) 2 minute rest 2X50 (I) 1 minute rest Purpose – Speed development, running economy/form	
	Distance	Speed Ladder	5 minute warm up, 6 minute focused run (slightly faster than race pace), 5 minute cool down run 4 x 150 in and outs Purpose - Aerobic capacity, speed development, running economy/form	
Saturday	Meet #4 Tigres host Thousand Oaks Flyers			

Quote of the week: *"Running is a big question mark that's there each and every day. It asks you, 'Are you going to be a wimp or are you going to be strong today?'" - Peter Maher, Canadian marathon runner*

April 3 – April 9 SPRING BREAK

April 10 - 16

Week 10 – Mid Season

Day	Group	Drills	Workout	Strength
Tough Tuesday * Long Jump	Sprint	Aerobic Work	Power drills 8X20 meter starts (focus on form & acceleration) 6X150 meter with 60 meter pick ups, walk back on grass with hands over head Complete rest between each set Purpose – Speed endurance	Myrtl routine <ul style="list-style-type: none"> Clams, lateral leg raise, donkey kicks, donkey whips, fire hydrant, knee circle forward, knee circle backward Pushups Core <ul style="list-style-type: none"> Forward, backward, & side planks Russian twists Superman/girls Burpees (with a jump for 5 and without for 5)
	Distance	Aerobic Work	2 sets 4X100 meter sprints with a 1 minute recovery 2 lap cool down Purpose – Speed endurance	
T.N.T. Thursday * Relays	Sprint	Sprint Speed Ladder + Laying starts	2X300 (l) 3 minute rest 2X100 (l) 2 minute rest 2X50 (l) 1 minute rest Purpose – Speed development, running economy/form	
	Distance	Speed Ladder	5 minute warm up, 6 minute focused run (slightly faster than race pace), 5 minute cool down run 4 x 150 in and outs Purpose - Aerobic capacity, speed development, running economy/form	
Saturday	Meet #5 Tigres host Camarillo Cosmos			

Quote of the week: *"Some runners judge performance by whether they won or lost. Others define success or failure by how fast they ran. Only you can judge your performance. Avoid letting others sit in judgment of you."*-Hal Higdon

April 17 - 23

Week 11 – Mid Season

Day	Group	Drills	Workout	Strength
Tough Tuesday * Long Jump	Sprint	Aerobic Work 1 50 meter pick up and 4 short 25 meter sprints (this is to make sure they are really warm since there is a lot of focus on their speed this week)	Power drills 100s, 1 minute rest, sprint 50 Rest 3 minutes Repeat 3-4 times 8X20 meter starts (focus on form & acceleration) Complete rest Purpose – Speed endurance	Myrtl routine <ul style="list-style-type: none"> Clams, lateral leg raise, donkey kicks, donkey whips, fire hydrant, knee circle forward, knee circle backward Pushups Core <ul style="list-style-type: none"> Forward, backward, & side planks Russian twists Superman/girls Burpees (with a jump for 5 and without for 5)
	Distance	Aerobic Work	1 X 400 meter (3 min rest) 2 x 300 meter (90 seconds) 2 x 200 meter (1 min rest) Purpose – Aerobic capacity, teaching pace, team work	
T.N.T. Thursday * Relays	Sprint	Sprint Speed Ladder + Laying starts	70 meter partner races (6) Purpose – Speed development, running economy/form	
	Distance	Speed Ladder	3 x 300 (3 minute rest) Purpose - Aerobic capacity, speed development, running economy/form	
Saturday	Meet #6 Oxnard Stars host Tigres			

Quote of the week: "It's supposed to be hard. If it wasn't hard, everyone would do it. The hard...is what makes it great!"-Tom Hanks in A League of Their Own

April 24 - 30

Week 12 – Championship Season

Day	Group	Drills	Workout	Strength
Tough Tuesday * Long Jump	Sprint	Aerobic Work	Power drills 8X20 meter starts (focus on form & acceleration) 3x200 Complete rest Complete rest between each set Purpose – Speed endurance	Myrtl routine <ul style="list-style-type: none"> Clams, lateral leg raise, donkey kicks, donkey whips, fire hydrant, knee circle forward, knee circle backward Pushups Core <ul style="list-style-type: none"> Forward, backward, & side planks Russian twists Superman/girls Burpees (with a jump for 5 and without for 5)
	Distance	Aerobic Work	2x800m (5 minute rest) 1st at 10 sec above PR 2nd at best effort Purpose – Speed endurance	
T.N.T. Thursday * Relays	Sprint	Sprint Speed Ladder + Laying starts	FUN PRACTICE 70 meter partner races (6) Purpose – Speed endurance	
	Distance	Speed Ladder	FUN PRACTICE 3 x 300 (3 minute rest) Purpose - Aerobic capacity, speed development, running economy/form	
Saturday	JV Meet at Fillmore High School			

Quote of the week: *"I'm going to work so that it's a pure guts race at the end, and if it is, I am the only one who can win it."* -Steve Prefontaine

May 1 - 7

Week 13 – Championship Season

Day	Group	Drills	Workout	Strength
Tough Tuesday * Long Jump	Sprint	Aerobic Work	7 x 75 (I) Complete rest Purpose – Speed endurance	Myrtl routine <ul style="list-style-type: none"> Clams, lateral leg raise, donkey kicks, donkey whips, fire hydrant, knee circle forward, knee circle backward Pushups Core <ul style="list-style-type: none"> Forward, backward, & side planks Russian twists Superman/girls Burpees (with a jump for 5 and without for 5)
	Distance	Aerobic Work	4 x 200m 5 minutes rest 1 st at 10 seconds over PR pace 2 nd at best effort Purpose – Speed endurance, race simulation	
T.N.T. Thursday * Relays	Sprint	Speed Ladder + Laying starts	5 x 75m (I) 1 minute rest Purpose – Speed endurance	
	Distance	Speed Ladder	1.5 Mile (E), 4 x 50m sprints (SD) Purpose - Aerobic capacity, speed development, running economy/form	
Saturday	Varsity Finals at Moorpark High School			

Quote of the Week: "Shoot for the moon. Even if you miss it you will land among the stars."
-Les Brown

May 8 - 14

Week 14 – *Championship Season*

Day	Group	Drills	Workout	Strength	
Tough Tuesday	Sprint	Aerobic Work	6 x 75 (l) complete rest Purpose – Speed endurance		
	Distance	Aerobic Work	4 x 200m 5 minutes rest 1 st at 10 seconds over PR pace 2 nd at best effort Purpose – Speed endurance, race simulation		
T.N.T. Thursday	Sprint	Sprint Speed Ladder + Laying starts	5 x 75m (l) 1 minute rest Purpose – Speed endurance		
	Distance	Speed Ladder	1 Miles (E) 4 x 100m strides Purpose - Aerobic capacity, speed development, running economy/form		
Saturday	Super Varsity at Rio Mesa High School				

Quote of the week: *"The will to win means nothing without the will to prepare." -Juma Ikangaa, 1989 NYC Marathon winner (repeat from week 1)*

OREGON DRILL

The Oregon Drill is used for several reasons during the Tigres track season.

- It combines work on both aerobic and anaerobic energy systems.
- Teamwork and running as a team is reinforced.
- Running on the infield creates a break from the stress of running on the track.
- It eliminates traffic on the track.
- Changing speeds during races is simulated.
- It is a way for coaches to have the ability to monitor all groups at the same time
- Below is the description by Pat Tyson from Mead High School in Washington.

OREGON DRILL

This drill, which I also described in chapter 5, was originally devised as a rehab **running** drill for Oregon athletes coming back from injury, but at Mead I found it was also a great way to work on mechanics. This is a meat-and-potatoes staple that serves several purposes. First, we do it bare-foot and on grass. (Form issues tend to become more apparent with shoes off). Second, it's simple to set up. Use cones to designate three **running** lanes that are about 20 meters wide and 80 meters long. This would be end zone to end zone if it's on a football field. You want one lane along each sideline and one through the middle (see figure 7.5).

The first lane is for easy pace. The middle lane is for medium, or cross country race pace, and the third lane is for a gradual pick-up to closing sprint speed. Runners jog slowly the 20 meters between cones to switch lanes. When runners complete the third lane, they jog easily back to the start and repeat the progression. Run this drill for 30 minutes nonstop. At the end of the season, as we were tuning up for the state championship, we ran this for 20 minutes.

While the athletes are **running**, watch or even videotape the workout. Break the overall group into smaller packs of five or six. The **Oregon drill** is free flowing and requires minimal input. Use this time to analyze the form of the runners and take notes about deficiencies you might see. This drill incorporates fartlek with its speed changes, which allows you to analyze form and how it changes from one gear to the next. Review this information with the runners through video or make critiques as you watch.

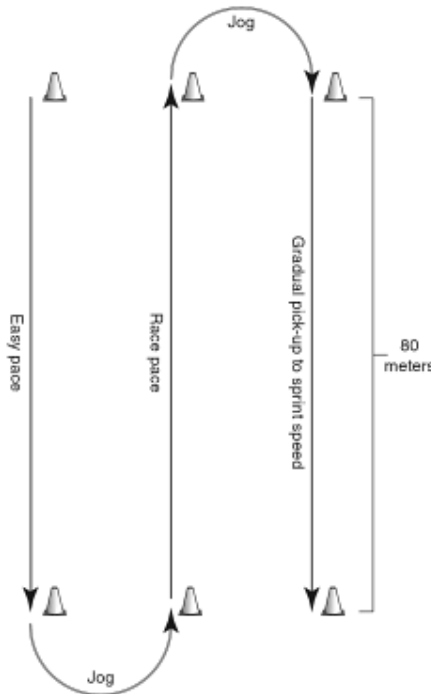


FIGURE 7.5 Oregon drill setup.

STRENGTH AND MOBILITY

Whether the athlete is a sprinter or distance runner, becoming a better athlete (stronger and more explosive) will not only help performance, but will also help greatly in preventing injury, improving running economy (form and technique), and will increase the athlete's ability to do more work.

Historically, when doing this type of work, athletes have focused on strengthening and creating flexibility in specific muscles (i.e. stretching a hamstring or doing a hamstring exercise). Current beliefs are moving towards training movements or creating strength and flexibility within a range of motion specific to the sport (in this case running).

Core

<https://vimeo.com/9807775>

- Prone Elbow Stand
- Running V-Sit
- Lateral Plank Left
- Back Hyper and flutter kick and crawl with arms
- Lateral Plank Right
- Flutter Kick V-Sit
- Back Hyper Scissor Breaststroke
- Indian Sit Crunches
- Scissor over/under V-Sit

Hip Mobility

- Iron cross
- Donkey kicks
- Scorpion
- Donkey whips
- Hurdle seat exchange
- Knee circle

Bruin – Medball

http://www.uclabruins.com/fls/30500/old_site/pdf/m-track/braden.pdf?DB_OEM_ID=30500

- Push ups
- Christian Smith Drill
- Russian Twist
- Burpees
- Medball Bridge – (advanced optional)
- Medball Pushup (changing hands)
- Medball Squats
- Push ups
- Burpees

The number of repetitions, sets or time should be increased as the season goes on as well as be adjusted to the capability of the athletes.

PLYOMETRICS

The most important factors in determining jumping and sprinting performances is the ability to quickly apply forces to the ground. Previous research has shown that faster runners can apply greater amounts of force down into the ground during the brief ground contact period than slower runners. This high rate of vertical force application leads to shorter ground contact times as well as longer stride lengths, thus allowing the faster runners to attain greater maximum speeds.

What many fail to realize is that gains in strength can only be transformed into power by applying very specific power training methods. For decades it has been probable that one of the most successful methods of training is the employment of plyometric exercises.

Also known as reactive training, the stretch – shortening cycle, or stretch reflex. The exercises known popularly as plyometric are those in which the muscle is loaded in an **eccentric** (lengthening) contraction, immediately followed by a **concentric** (shortening) contraction. It has been demonstrated that a muscle that is stretched or pre-tensed before a contraction will contract more forcefully and rapidly. What many fail to realize is a third type of force known as isometric which occurs just before touchdown of the foot before the eccentric contraction, and again at full support just before the concentric contraction.

Plyometric Routine

- Straight leg bound regular bound
- Single leg straight leg bound RT. right-right-left-left
- Single leg straight leg bound lft.
- Lunge jumps
- Power skips frog hops
- Backwards Paw Sprint
- Side shuffle bound
- Single leg hop right
- Single leg hop left

SPEED DEVELOPMENT

The goal of a speed-development workout is simply to "call on" the fibers that aren't recruited in large numbers when jogging or even running threshold or race pace. The improved coordination between your metabolic system and bodily mechanics from these workouts will result in faster, more efficient running at other effort levels.

150 In and Outs

On a 150m run, accelerate gradually during the first 50m; then run the middle 50m at your maximum speed, then cruise out of that rhythm the last 50m.

Start with three to four of these and work up to six to eight with each middle 50m getting a bit faster. Don't worry about anything other than the pace of the middle 50m.

Take as much rest as you want, as the intent of this workout is not to endure anything, but rather to recruit more fibers. You gain nothing by speeding up the recovery. You are not recovered enough until you can successfully run the middle 50m at your absolute maximum speed. We want that middle 50m patch to be your maximum speed, while still running controlled and relaxed in your neck and shoulders.

30 Meter Max Patch

Once you've done several weekly sessions of 150 In-n-Outs, you can progress to this workout. To start, you'll do three to four of the 150m In-n-Outs. Then you'll run 2-3 x 30m at 97 percent; though technically you're not running at your maximum, most people will actually run a bit faster with the cue of "97 percent" rather than "all-out" or "as fast as you can" because they will stay more relaxed in their neck, face and shoulders.

The recovery is 2-3 minutes walking. Yes, walking. Running 30m at 97 percent is metabolically powered by the phosphocreatine system, and 3 minutes of walking will allow that system to replenish nearly all of ATP needed for the next 30m sprint.

Speed Ladders

- In and out steps
- Lateral shuffle
- Side laterals
- Forward hop
- Siderocker
- Icky shuffle

* this routine can be seen at: http://www.youtube.com/watch?v=sOAA-_IGyUw
and <http://www.youtube.com/watch?v=7RHVnGwoU1E&NR=1&feature=fwp>

SPRINTING MECHANICS

Head

- Keep your head still and naturally in line with your spine
- Relax your jaw and neck muscles
- Focus your eyes down the track

Shoulders

- Relax your shoulders to keep from shrugging, which will lock your hips
- Power upper-body movement with your shoulders, not your arms

Arms/Hands

- Balance leg movements with your arms; the arm on your lead leg side should go back, and vice versa
- Swing your arms forward to a closed place at a 135-degree angle in front of your body and backward to an open place behind your body. Bringing your arms too far forward or backward will throw off your balance and waste energy

Posture

- Maintain a neutral posture. A forward or backward tilt at the pelvis will decrease range of motion in the hips, adding injury- causing pressure to the hamstrings

Front-Side Mechanics

- Raise your lead leg to a locked horizontal position with your hips held high
- Adjust the angle between your shin and foot to 90 degrees or more
- To start a forward swing, extend your lead leg at the knee

- Prepare for contact by stabilizing your ankle and keeping your toes up
- Land with a flat, mid-foot strike
- Swing your landing leg two to four inches in front of the hip to apply force on contact. If you swing too far, your body will naturally brake. If you don't swing far enough, you'll lose stability.

Back-Side Mechanics

- Start back-side mechanics when your recovery leg is even with your support leg on ground contact
- Keep your hips tall
- Contact the ground with your foot bent toward your body, and push off with your toes
- Bring your toes off the ground with your ankle bent toward your body under the gluteal muscle
- Shorten your recovery leg as it goes up and over the knee on your support leg and rises to a locked position; think of the cyclical motion of a pedaling bike; bring your heel as high as possible, up over your support leg knee

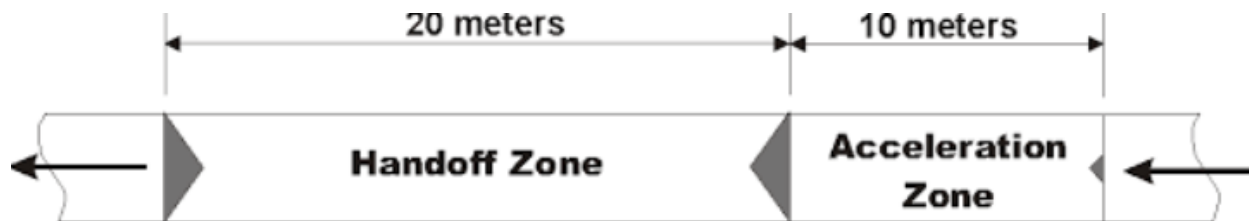
RELAYS (4 x 100)

The goal for Tigres is to teach relay fundamentals so that each year athletes will become more proficient. The following guide lays out the basic fundamentals that we will follow to give coaches and athletes a foundation for learning relays in a consistent way.

Relay Zone Definitions

10 yards from the small triangle to the large triangle is the acceleration zone.

Near the middle of the large triangle to large triangle is the ideal exchange zone



Baton can be handed off anywhere between the small and last large triangle.

Midget/Youth/Int to use acceleration zone (small triangle)

Bantams to be taught the acceleration zone and coaches will determine which athletes are capable of using and when they should transition to using.

How To Determine Marks

6 strides (18ft) to be used to set first mark for runners 2, 3, and 4 (this will likely be adjusted)

Mark to be set on opposite side of the lane (ex: runner 2 runs on the outside of lane, so mark will be set on inside of the lane)

Second mark will be set 1 long stride past the first mark

First mark (18ft) will be set if both runners are the same speed (adjust the mark closer if incoming runner is slower and longer if incoming runner is faster)

Second mark will always be 1 long stride, regardless of speed

Outgoing runner takes off at full speed when incoming runner steps between the first and second mark (each runner stays on their side of the lane)

Guidelines For Choosing Legs

Runner/Leg 1:

- Fast starter
- Runs turns well
- Stays on inside of lane
- Carries baton in right hand
- Only needs to hand off baton

Runner/Leg 2:

- Runs longest distance
- May want fastest runner in this position
- Stays on outside of lane
- Carries baton in left hand
- Needs to receive baton and hand off baton

Runner/Leg 3:

- Runs turns well
- May want slowest runner here
- Stays on inside of lane
- Carries baton in right hand
- Needs to receive baton and hand off baton

Runner/Leg 4:

- Strong finisher (gamer/highly competitive)
- Stays on outside of lane
- Carries baton in left hand
- Only needs to receive baton

Advanced Strategy

In a perfect scenario, all four runners will have close to the same speed. In this case, a coach may put the fastest runner as the anchor. However, this is seldom the case.

Where there is a difference in speed, the fastest runner should be number 2 to maximize the distance they run (up to 110 – 120 meters). This is accomplished by receiving the baton early in zone 1 and passing of late in zone 2.

If you have a weaker runner, it is typically best to put them on leg 3 to have them run the shortest distance (leg 2 hands off late and leg 4 receives early).

Notes

- Underhand pass to be used in all age groups (exception to this could be Gremlins at the coach's discretion)
- Hand off happens when runners are almost side by side
- Carry baton at the bottom to create more room for receiving runner to grab
- Learn to adjust the baton (wiggle hand down) while running full speed
- Never switch hands with baton during the 4 x 100
- Call "stick" only when 1 stride away (approximately 3-4 feet)
- Incoming runner runs through the hand off and stays in lane
- Outgoing runner never looks back during the exchange
- Both incoming and outgoing runners should be running at full speed during exchange
- Both incoming and outgoing runners must stay in their lane until the race is over
- Where the baton is, determines before and after the zone, not the runner
- Either tape or a tennis ball cut in half can be used as markers
- Finishing runner must not throw the baton after the race or the team will be disqualified
- When starting (runner number 1), the baton can hang over the starting line, but fingers must remain behind the starting line

STARTS

How To Set Blocks

- Front black pad is set 2 feet from start line
- This will be your “power” leg or jumping leg
- Back block is set 3 feet from the start line
- This will be your “speed” leg (kicking leg)

Positions At Starters Commands

- Stay loose behind the blocks (no stretching)

On “Marks” Command By Starter:

- Walk from behind blocks past starting line and loosen legs.
- Don not “show boat” (draw attention to yourself), but take 3-4 seconds and proceed back to blocks
- Put hands on track and back into block: front pedal first
- Heels off pedal, toes curled under
- Position hands behind starting line with fingers together
- Create bridge with thumb and fingers (fingers parallel to start line)
- Rock forward until shoulders are over hands, elbows locked
- Drop head
- Remain still

On “Set” Position By Starter

- Raise hips with front knee 90 degrees, back leg at 120 degrees
- Come up steadily
- Toe on track on front foot
- Utilize the back leg to lift hips
- Put pressure on both blocks
- Relax front leg
- Concentrate on back pedal
- Look downward at the track
- Relax neck
- Don't raise head
- Remain still and relaxed

At The “Gun”

- Push off with both feet (try to move block)
- Drive arm of power leg forward
- Take a long, low, powerful first stride
- Gradually lengthen stride through acceleration process
- Gradually work your way to sprint posture – this should take at least 20 meters

LONG JUMP

Concept Videos

Below are you videos that are a good introduction into long jump and some of the drills we use.

- Long jump Cameron Gary basic

<https://www.youtube.com/watch?v=p1Lbskr-vbQ>

- Chair drill

https://www.youtube.com/watch?v=-A8632_Nx6k

- Chair drill to pit

<https://www.youtube.com/watch?v=ChCIKwDB4aw>

- Landing while using standing long jump

<https://www.youtube.com/watch?v=R8YIHpD8tn8>

- Teaching the hang

<https://www.youtube.com/watch?v=-ulr1CQC8LY&list=PLA81F86E0A628DE18&index=2>

- Box drills

<https://www.youtube.com/watch?v=C08RAUZYWVw&list=PLA81F86E0A628DE18&index=4>

- Box taps/bench drives

<https://www.youtube.com/watch?v=BDdO27eAINQ>

Long jump warm-up drills

- Low skips with the big arms
- Lateral jacks
- A skips
- B skips
- C skips
- Hip twists
- Skipping for height
- Straight leg bounding (then run it out)
- Hip rotations
- Knee rotations
- Ankle rotations
- Frog hops

The Approach Run Up

The objective of the approach run is for the athlete to achieve the ideal speed – fast and controlled. *The length of* approach depends on age, strength, and experience. Jumpers should reach maximum speed when they hit the board. If an athlete is slowing down before reaching the board, the approach should be shorter. As a starting point with beginning jumpers think 5 lefts or rights or 10 total steps and go up or down from there based on competence. **This distance should be measured away from the runway.** Have them start at a fixed point on the track, accelerate and run through whatever number of steps you have determined as a starting point (5 or 6 lefts or rights). Mark where the takeoff foot lands on 6 approaches. Use the most frequent spot they hit and measure back to your starting point. A couple of reminders, do not have them takeoff when running these approaches. When you add the penultimate and takeoff step, the approach will be longer, maybe a few inches. The athlete should know the distance of their approach and never have to “run it back” at a meet; this reflects lack of preparation. It is easier to count lefts or rights than total steps, so count takeoff leg steps.

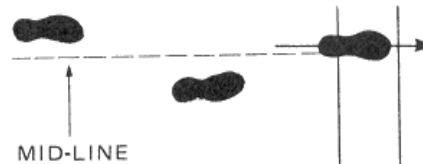
What foot does the athlete takeoff with? Generally, this is the preferred leg for doing a lay up in basketball, the foot they would generally put forward to start with and the opposite of their handedness (right handed = left foot takeoff). There

are exceptions to the rule..., so try both feet if you're unsure. Another method is to have the athlete fall forward. The foot which falls first should be their drive leg and the other is the take-off leg.

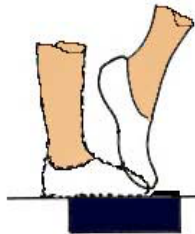
The take off

The preparation for the long jump take-off begins in the later phases of the approach run. The long jumper prepares for take off by sinking the hips and then raising the hips into the take off phase. This usually results in the next to last stride being longer than normal and the final stride being up to 25 centimetres shorter than a normal running stride. It must be emphasised that the hip sink and stride adjustment all happen in response to the athlete's postural adjustments in preparation for the take off. At take off ensure the hips are slightly forward of the shoulders.

When the take off foot is placed on the board, it is slightly in advance of the jumper's hips and should strike the board on the mid line.



The final two foot contacts in the take off should be flat, almost slapping.



The vertical impulse is achieved by the upward acceleration of the "free" limbs, the arms and the non take off leg, against the braced take off leg. These movements should be characterised by short radius (blocked), fast explosive actions.

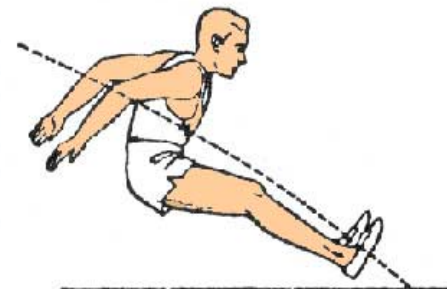
The head should be carried in a normal position, in line with spine, and the eyes should be focused forward and slightly up.

The flight through the air

Speed and lift generated on the runway and through take off can result in a good distance. After a take off the athlete tends to have forward rotation that, if not corrected, will result in the feet hitting the sand early and a loss of distance in the jump. The cyclic forward movement of the legs and arms, as seen in the hitch-kick for example, will correct this forward rotation.

The landing

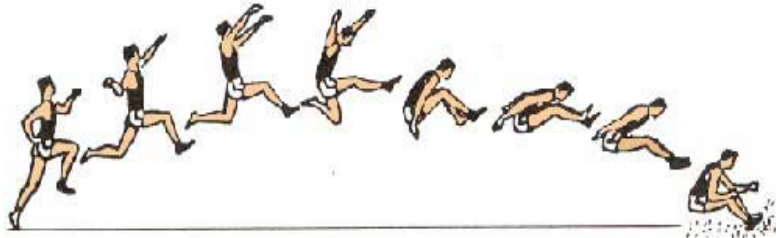
During the landing, the athlete is aiming to get the heels as far away from the take off board as is possible. The ideal landing position is shown in the diagram opposite where the dotted line represents the projected flight path of the body's centre of gravity. The heels will need to land just before the projected flight path to ensure the athlete does not fall back into the sand. As the feet make contact with the sand, press the heels downwards and contract the hamstrings causing the hips to rise. As the hips rise twist them to one side and allow the forward momentum to carry the body past the landing position.



Long Jump Styles

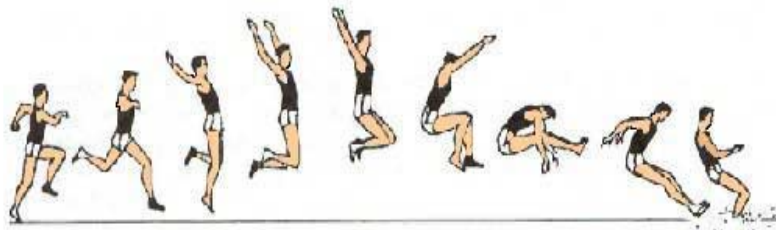
The Stride Jump

In the stride jump style the athlete maintains the take off position for as long as possible and only as the athlete comes into land does the take off leg join the free leg for a good landing position.



The Hang Style

On take off the athlete drops the free leg to the vertical, which is then joined by the take off leg. The arms go overhead to slow down the rotation about the athlete's centre of gravity. The legs are then lifted upwards and forwards whilst lower the trunk. The arms swing past the legs during the landing phase to ensure a good leg shoot.



The Hitch-Kick

Following take off the free leg is straightened and swung back and down as the take off leg folds up beneath the hips and comes forward bent. The take off leg then continues forward, straightening for landing. The free leg completes its backward swing behind the hip and then folds up and moves forwards bent, to join the take off leg ready for landing.



Early Season (Weeks 1-5)

During weeks 1-5 the athlete will learn

- Starting foot and take-off foot preference
- Number of strides (resulting in a mark) for approach
- Drive off the board
- Landing with two feet
- Exiting the pit

Mid Season (Weeks 6-10)

During weeks 6-10 the athlete will

- Continue practicing full approach becoming more consistent with approach
- Introduce the penultimate
- Continue working on drive and flight
- Focus on driving through feet during landing

Championship Season (Weeks 11-14)

During weeks 11-14 the athlete will

- Continue practicing full approach
- Continue practicing penultimate
- Continue working on take-off/flight/landing

