



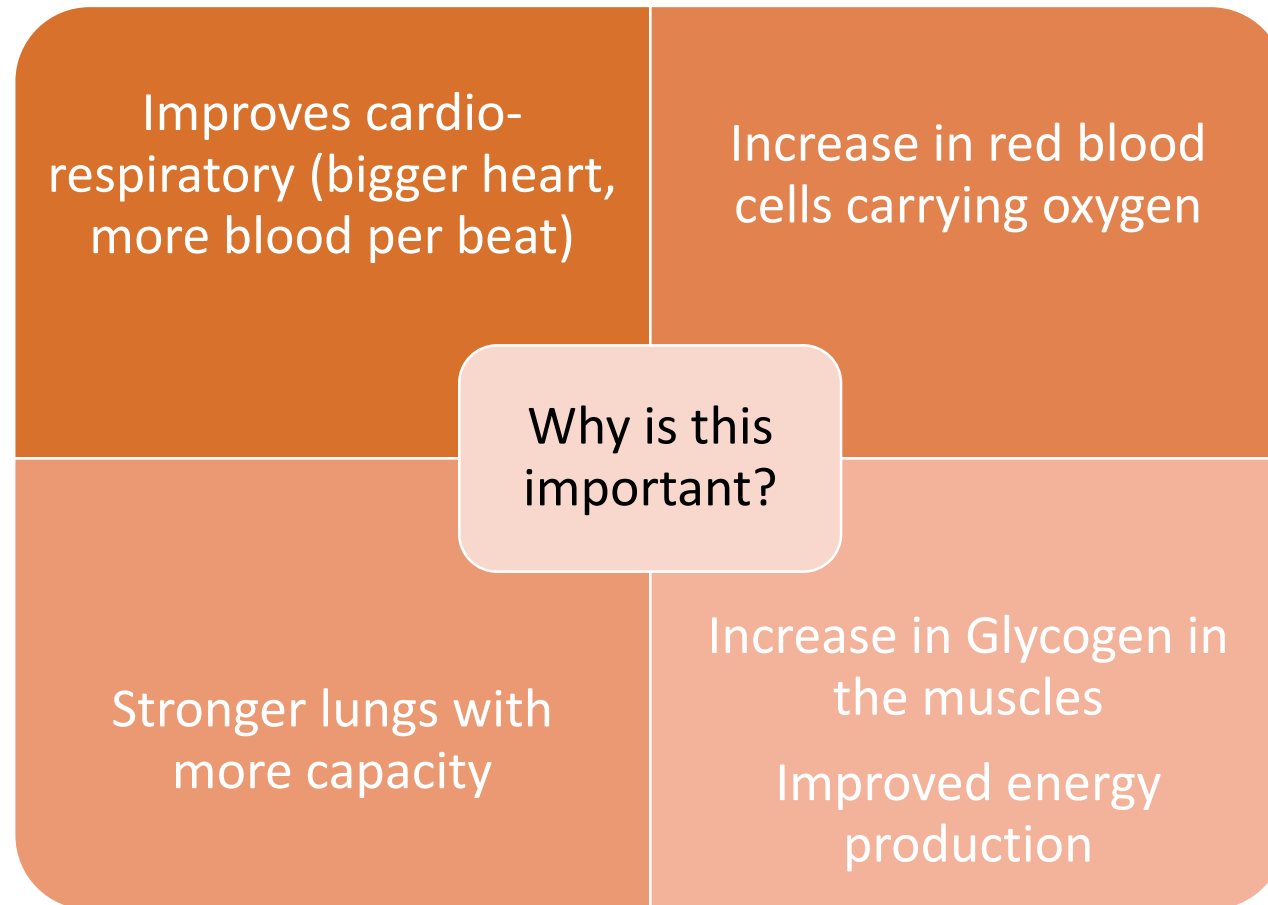
# Components of Fitness

Training Specifically

# Components of Fitness – What are they?

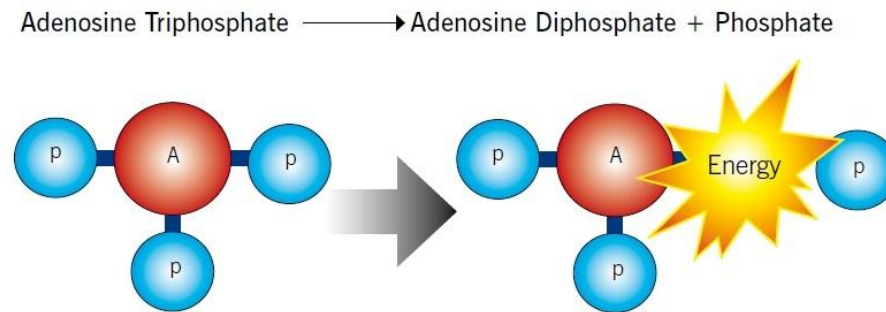


# What does Aerobic Endurance (AE) give me?



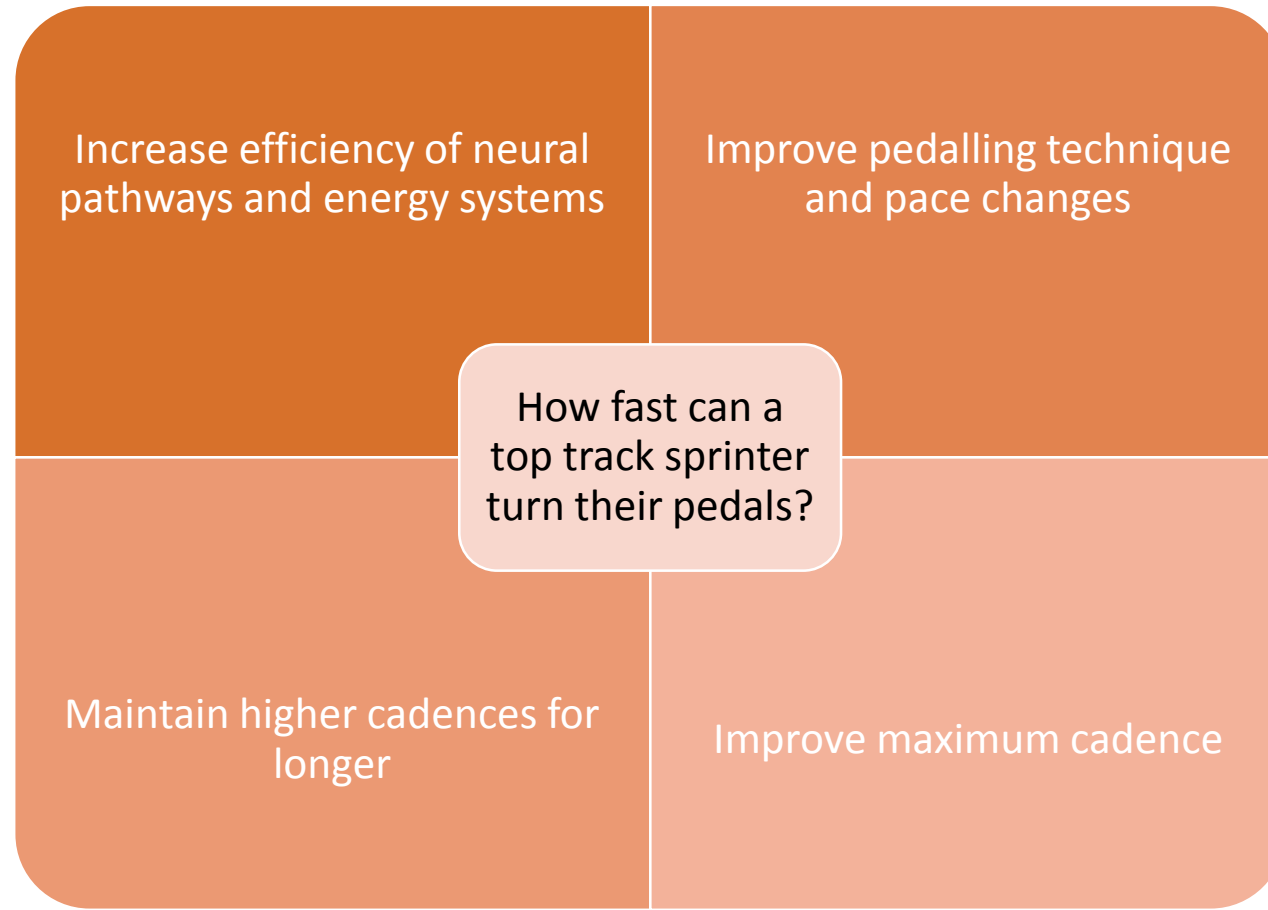
# The Geeky Bit

- Pure sprint efforts last from just a few seconds to a maximum of around 30, therefore your immediate or short-term energy generation systems play a big role.
- For the first second or two of a sprint, you'll use the high-energy compound –and basic unit of energy in the body –ATP (Adenosine Triphosphate). After that, stored ATP runs out.

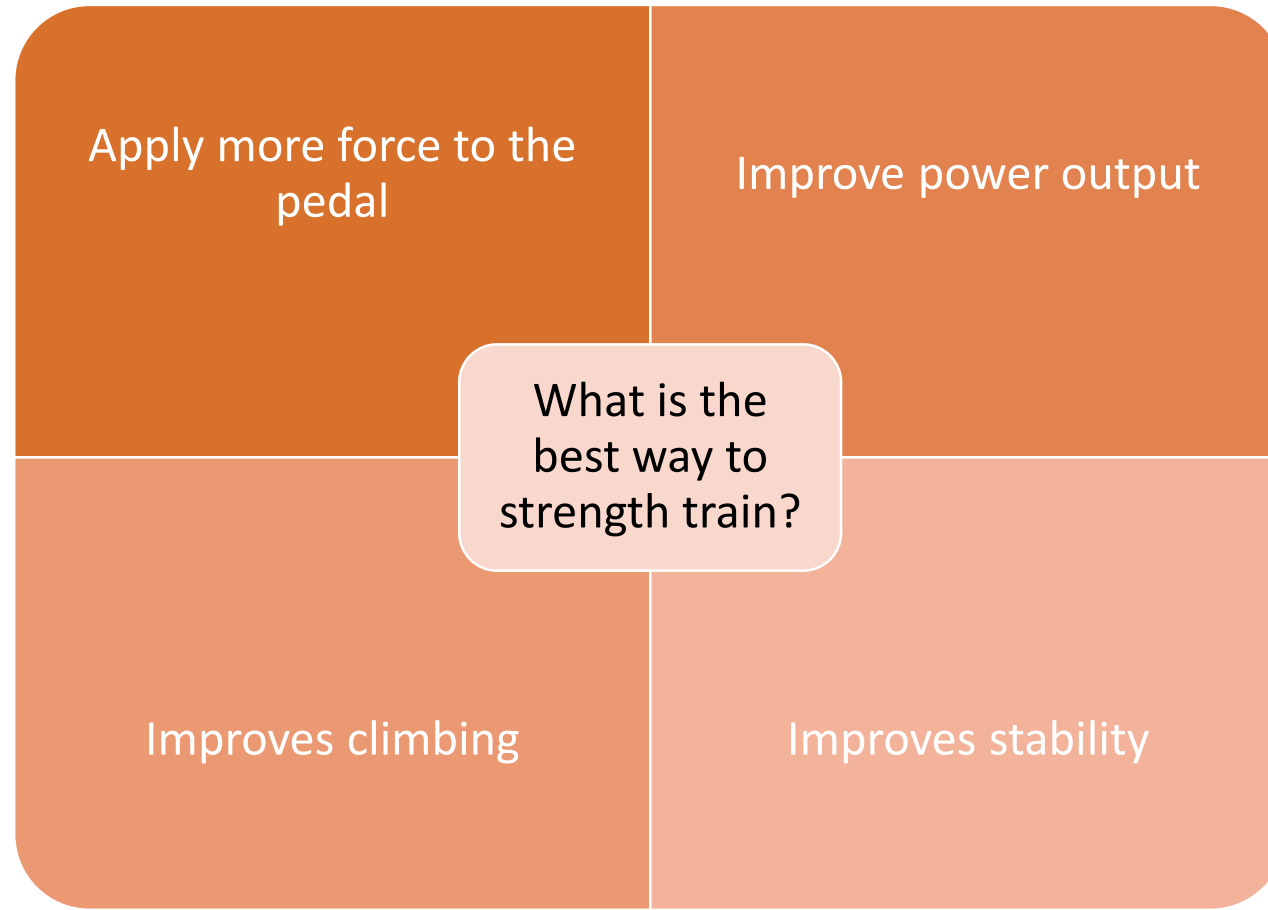


- For sprints peaking at around 10 seconds, your body switches to another compound, creatine phosphate (CP), to produce more ATP. All of this is done without the need for oxygen –in other words, anaerobically.
- Beyond 10 seconds of sprinting, ATP is produced by the breakdown of carbohydrate – a process called glycolysis. This in turn produces pyruvate. In normal endurance riding, the oxygen you take in helps convert pyruvate into even more ATP.
- However, when you're sprinting and not getting enough oxygen to your cells, the pyruvate is broken down into lactate for rapid energy. But it doesn't take long for lactic acid to build up, the dreaded 'burn' to start and a rapid loss of energy and power to occur.

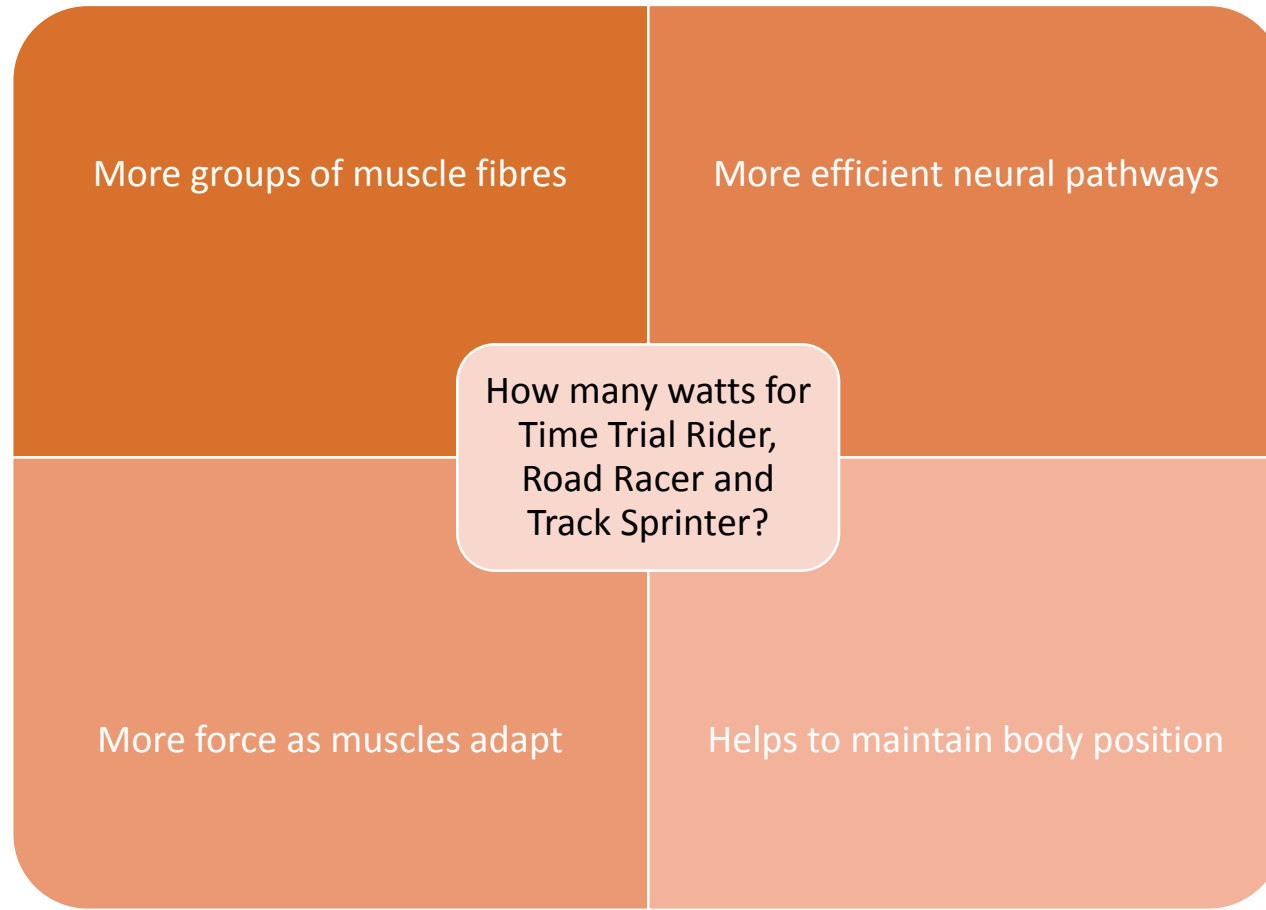
# What does Muscular Speed give me?



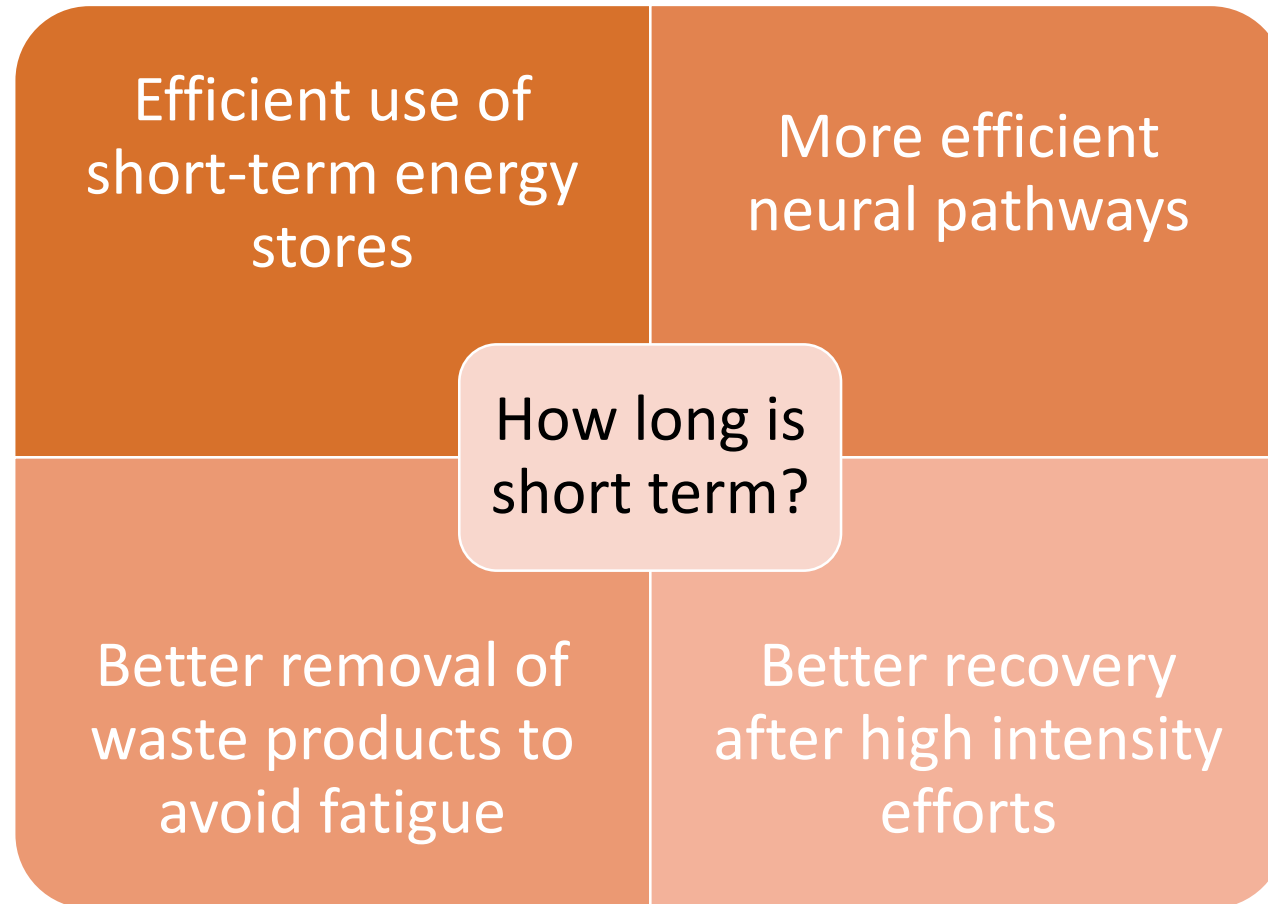
# What does Strength give me?



# What does Muscle Power give me?

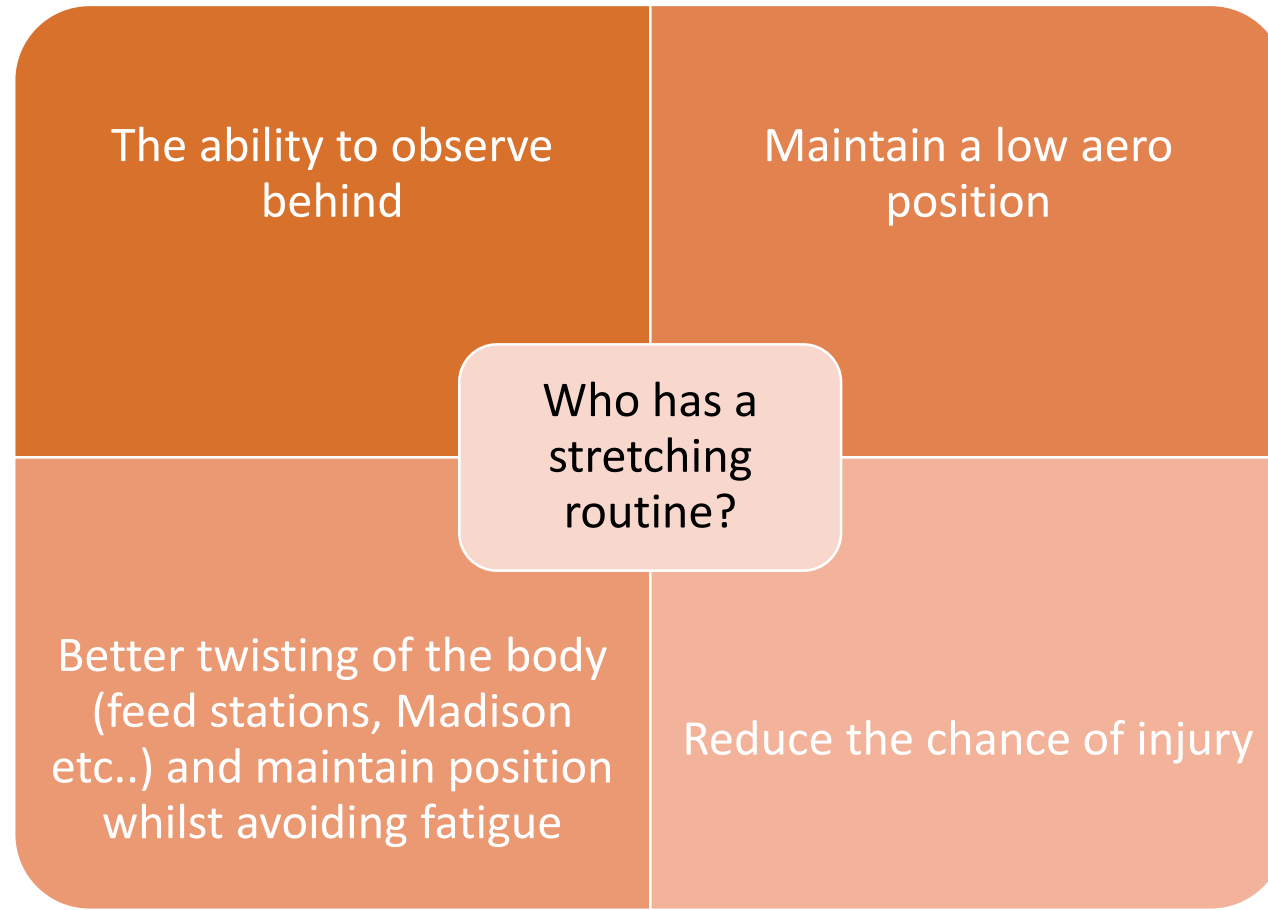


# What does STME give me?





# What does Flexibility give me?



# Where are they required?

	Crit/Road Racing	Time Trial (10-25miles)	Track Sprint	Track Endurance	MTB Cross Country
Aerobic Endurance	★★★★★	★★★★	★	★★★	★★★★★
Speed	★★★★★	★★★	★★★★★	★★★★	★★★★
Strength	★★★★	★★★★	★★★★★	★★★★	★★★★
Muscle Power	★★★★	★★★	★★★★★	★★★★	★★★★
STME	★★★	★★	★★★★★	★★★★	★★★
Flexibility	★★★	★★★	★★★	★★★★	★★★★★

# What next?

In your group, design a 20 minute turbo session for:

- Group 1: A 10 mile time trial rider
- Group 2: A track sprinter
- Group 3: A MTB XC Rider
- Group 4: A road race specialist