 **CYCLING SCIENCE**

**HOW DOES GEAR SELECTION IMPACT MY DISTANCE?**

Find a level space and determine the distance your bike travels with each pedal revolution.

In 1ST gear, one revolution equals \_\_\_\_\_\_\_\_ FEET

IN 3RD gear, one revolution equals \_\_\_\_\_\_\_\_ FEET

IN 5TH gear, one revolution equals \_\_\_\_\_\_\_\_ FEET

5TH gear allows me to go \_\_\_\_\_\_\_\_ feet more than 1ST gear

I will make \_\_\_\_\_\_\_\_ revolutions in one mile in 1st gear. (Hint: there are 5280 feet in a mile).

I will make \_\_\_\_\_\_\_\_ revolutions in one mile in 5th gear.

I will make \_\_\_\_\_\_\_\_ more revolutions traveling one mile in 1st gear than 5th gear.

How can you apply this knowledge on the trail?

How will this differ on a climb or descent?

Determine how far your bike will coast with one pedal stroke

In 1st gear, my bike travels \_\_\_\_\_\_\_\_ feet with one pedal stroke

In 5th gear, my bike travels \_\_\_\_\_\_\_\_ feet with one pedal stroke

My bike travels \_\_\_\_\_\_\_\_ more feet in 5th gear than 1st gear.

Find an open level space around 100 feet long and mark a starting and stopping point. Record your time in a sprint from a standstill. Then, after resting, record your time while at full speed when crossing the start line.

It took me \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ time to ride from a standstill.

It took me \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ time from a full speed start.

Is it easier to pedal when your bike is already moving? Why?

How could you apply this finding on the trail to be a more efficient rider?

If you sprint from a standstill then come to a complete stop for 3 seconds what is your time? Do you lose 3 seconds or more?