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## Changing Gears

## GRADES 6-8

## Explain/Elaborate

Mass of the bike and rider (in kilograms) = answer here
Record the time it took to ride 20 meters using gear 1.

| Distance <br> 20 m | Time <br> (seconds) | Velocity <br> (distance/time) | Acceleration <br> (velocity/time) | Force <br> (mass * acceleration) |
| :---: | :--- | :--- | :--- | :--- |
| Ride 1 | answer here | answer here | answer here | answer here |
| Ride 2 | answer here | answer here | answer here | answer here |
| Ride 3 | answer here | answer here | answer here | answer here |

Predict: How do you think your acceleration will compare when using gear 3? answer here

Predict: How do you think your force will compare when using gear 3? answer here

