Spencer, Mason, & Tyler

Geology And Mountain Biking

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Geology

Mountain Biking
Typically all mountain bikers would like to ride on hard and firm surfaces, but this is not always the case on most trails. Some sedimentary rocks are better served for riders hoping to cross than others. Traction is crucial for mountain bikers to have, if a biker loses traction they are very susceptible to fall off their bike and get injured.
Gravel is a rock that is a specific size. It's larger than 2mm and smaller than 2.5 inches. Gravel can be mixed with many different elements like sand, clay, limestone, dolomite, est. In mountain biking riders prefer surfaces that tend not to be loose, loose surfaces cause for bad traction.
Bad Riding Surfaces

- Siltstone's size is medium in grain size and much like shale and sandstones. This rock tends to erode and leave siltstones on the sides of trails. When a rider tries to cross it they much like the gravel will find themselves in a very uneasy surface.
Bad Riding Surfaces

- Shale is a fine grained sedimentary rock that is made up of clay or mud. Shale is the most common of the sedimentary rocks; in turn mountain bikers come across it very often. This surface can give a riders two different problems the first of course being the loose surface. The second is a result of a fall on the very sharp rocks which could potentially cut a rider badly.
Bad Riding Surfaces

- Sand is never fun for a rider to come across; it's comparable to paddling a canoe upstream. Nevertheless it is an issue that sometimes has to be faced. Sand is the most finely divided rock and mineral particles. This means it is not a very hard packed surface, which asks the rider to use about two times the energy, not very efficient.
Bad Riding Surfaces

- Dolomite is not very common but at times can be found on the side of trails or in loose gravel. This surface is not too big of an issue, but falling on it would not be recommended.
Roots are of course not a type of rock, but they are indeed a bit of a hassle. Though they usually found underneath the ground, at times a rider might come across them during a ride. Larger roots may require some riders to get off their bikes, but for the most part they will be easy to cross.
Dirt is by far the number one selection for all riders. Whether it be soft or hard packed, dirt is very reliable for traction. Dirt is made up of broken rock particles that have been changed by chemical and environmental processes.
Limestone makes for a good riding surface when it dry, but when wet it can be very hazardous. Limestone can collect biomass which is a plant like matter, which can create a very slick surface for anyone trying to cross it.
Good Riding Surfaces

- Sandstone forms through the cementation process made up of mostly quartz and feldspar. Because of the compact nature of sandstone, mountain bikers are comfortable riding on it in most conditions.
Clay and mud are both good for getting a maximum traction, but if they are wet a biker might find it harder to get speed. This in turn will make it a much more grueling ride to the end.
Mountain Biking Tips

#1. First and foremost if you are just learning or going on anything harder than an intermediate trail please wear a helmet, who cares if it messes up your hair or you don't look cool, it'll pay off in the long run.
#2. Know what trail you’re going on, most trails around the country are marked in terms of beginner, intermediate, advanced, and finally expert. The trails are rated according to elevation change, trail surface, and objects that have to be transverse.

#3. Don't forget your cell phone! If someone gets seriously injured this will be the best way to get in contact with someone who can help.
#4. BRING LOTS OF WATER! You can never have too much water on a trail.

#5. Be as prepared as you can, tire blow outs occur often on sharp rocky surfaces, and there is potential for injury when riding full speed down narrow trails. If you can bring a small first aid kit and some fix a flat.
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#6. Enjoy the scenery, yes it's good to exert a lot of energy, but every once in a while it's good to stop and check out the surroundings. Whether it's an eroded stream that turns into a waterfall or a cave made of limestone, or a fossil created over 10,000 years ago.
All in all mountain biking and geology go hand and hand, riding a bike over different terrains and different environments makes one aware of the geological perspective. Having knowledge in geology will give mountain bikers a better ability to ride, better chance not to get hurt, and a greater appreciation for the things they observe on trails.
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