Tips for Buying/Selecting the Right Mountain Bike for High School Racing

First thing (this might be obvious, but just to be clear)...you'll want a geared cross-country mountain bike (meaning it has anywhere from 11-30 gears) and wider/knobby tires for off-road use (1.75 to 2.5"+ wide).  These are the minimum league requirements for riding/racing with the team.  Beyond that, when selecting a  mountain bike, you'll have several options, including wheel size (26", 27.5" or 29") and Hard-tail vs Dual-Suspension, frame materials.

**Wheel size:**Most kids are either riding 29" or 27.5" (also called 650b) sized wheels. 29" seems to be the standard for most adult MTB, but 650b is also fine (and may actually be preferable for younger / smaller riders (again, not sure how big your son is, but if he's on the small side, you may want to consider the 650b option).  26" is kind of old school, but still perfectly fine to use and you can probably find good deals on used 26" bikes if you're looking at used bikes, since 27.5/29 is by far more popular these days.  The difference is the 26" wheels are typically more 'nimble' and maneuverable through tight, twisty trails.  the 29" wheels typically roll over obstacles easier and keep their momentum going easier, but may be less nimble in tight turns. The 650b was designed as trying to provide the best of both options.

**Suspension:**You have options of no suspension, front suspension or dual suspension.  No suspension is basically a rigid front fork (where the front wheel connects the to frame)...similar to a typical road bike.  It will be very difficult to find a Mountain Bike these days with no suspension, but there are some options.  The only benefit of this is that it would be lighter, but at the expense of a more jarring ride.   Front suspension - has a front suspension fork to absorb bumps and rough trails on the front wheel.  Most mountain bikes will have front suspension fork at a minimum.  Finally, you can get a full-suspension bike, which is a front suspension fork plus a rear shock typically built into the frame between the seat and bottom bracket. My advise would be to get a front suspension fork if the majority of use is for the high school MTB team and practices, as that is all that is really required for trails in our area and it will be lighter than full suspension.  If you know you'll be riding downhill trails, trails with large rocks/obstacles or riding out west, etc. then you might consider a full-suspension bike, but otherwise you'll pay more for the extra suspension and have to carry the additional weight.

**Frame Materials/Size:**The most common frame materials used for Mountain bikes is either Steel (Chrom-Moly), Aluminum or Carbon fiber, with cost increasing as you go from Steel to carbon fiber, but weight of the frame decreasing as the cost increases.  I would say the majority of entry level or new team members have Aluminum frames as they are strong, light, and relatively inexpensive.  The more elite/experienced racers will ride carbon for the weight savings, but you'll will definitely pay a premium or that so I wouldn't recommend it unless you're sure this is something your son is committed to doing (and he very well could out-grow his bike in a few years).

Speaking of frame sizes...you'll want to test ride the bike and make sure the frame is appropriate for the rider.  Frames typically come in S, M, L or XL sizes (or 17", 19", 21").  Unless your son is over 5'11" or so, you'll probably end up on a S (17") or M(19") frame (or possibly an XS).  Make sure the bike fits  him NOW...don't assume he will 'grow into' the bike....especially when starting out.  A bike that doesn't fit will make it much more difficult to master the skills and gain confidence needed to ride safely off-road.  You can always raise a seat, add spacers/extenders to handle-bars, etc. to make smaller frame feel bigger, but it's much more difficult to make too large a bike fit.

**Components:**The other consideration is components that will come on installed with the bike (e.g. shifter/derailleur , brakes, cranks, pedals, bars/stem).  Most manufacturers will put components on the bike that match it's price point (e.g. a cheaper bike will come with cheaper components).  By cheaper components, I mean they will wear faster, might be heavier and not be as reliable. I would focus on good brakes and good drive train (shifter/derailleur/gears).  Also note, that you can swap out or replace components relatively easily, but the frame is what it all sits on, so get a frame that fits well and you like.  Riding on the team for practices next year and racing will take a toll on components since you will be putting many more miles on a bike than the typical rider.

Finally, I would encourage you to visit some local shops and talk to them about what the options are, correct sizing, etc.  It's a slow time of year for most shops, so they should have time to focus on your needs and probably give you a good deal on last years models (mention that your part of the MN NICA High School league and ask about a NICA discount).  I know Michael's Cycle's has worked with many of our kids to get them set up on a bike, Penn Cycle and Eriks are also league sponsors and big supporters of the league, so we like to support them as much as we can.  You will see all kinds of brands, depending on which shop you go to...the big three or four that I see are Trek, Speacialized, Cannondale, Kona, Giant, etc.  All have good bike at entry level to top end MTB bikes, so it will come down to how much you have to spend, what kind of deal you can find and what inventory is available (Most shops will be looking to clear out remaining 2017 inventory this winter to make room for new 2018 models in spring).