STRETCHLEARN · WORKBOOK

Bike Maintenance & Repair — Workbook

This workbook turns the course into hands-on practice on your own bicycle. Each section pairs with a course module and mixes guided exercises, fill-in worksheets, and checklists you will use at the workstand. Work through it with your bike, tools, and a torque wrench within reach, and keep the templates to track wear and tune-ups over time.

Workshop Setup, Bolts, and Safety

Build your toolkit, learn your bike's torque specs, and lock in a pre-ride safety habit.

Worksheet: My Bike's Spec Sheet

Find these values from the bolts, the sidewall printing, and your bike or component manuals, and record them so you never have to guess mid-repair.

Bike make and model

Brake type (rim or disc)

Front tire pressure range (psi, from sidewall)

Rear tire pressure range (psi, from sidewall)

Stem bolt torque spec (Nm)

Seatpost clamp torque spec (Nm)

Wheel system (quick-release or thru-axle)

Thru-axle torque spec, if applicable (Nm)

Checklist: Minimum Toolkit Acquisition

[ ] Hex key set including 2, 2.5, 3, 4, 5, 6, and 8 mm
[ ] T25 Torx key for disc rotors and many cranks
[ ] Torque wrench covering roughly 2 to 14 Nm
[ ] Set of three tire levers
[ ] Floor pump with a working pressure gauge
[ ] Chain checker (wear gauge)
[ ] Bicycle-rated cable cutter
[ ] Repair stand or a way to hang the bike off the ground

Exercise: Run the ABC Quick Check

Perform the ABC plus quick-release and drop test on your bike, then answer the prompts. Repeat before your next three rides to build the habit.

• Were both tires within the printed pressure range, and if not, how far off?

• Did each brake lever firm up well before reaching the bar?

• Did the drop test reveal any rattle, clunk, or buzz, and where did it seem to come from?

• How long did the full check take once you knew the steps?

Wheels, Tires, and Flat Repair

Practice the full flat-repair sequence, diagnose punctures, and confirm your wheels are secure and true.

Exercise: Timed Flat Repair Drill

Remove a wheel, take the tube out, reseat or swap it, and reinflate, following the course sequence. Do it twice and compare. Practicing on a calm afternoon makes the roadside version effortless.

• Did you remember to shift to the smallest cog before removing the rear wheel?

• What did you find when you ran your fingers around the inside of the tire?

• How did you avoid pinching the tube while seating the final section of bead?

• What was your repair time on attempt one versus attempt two?

Worksheet: Puncture Diagnosis Log

For the next flat you get, inflate the removed tube, locate the hole, and fill this in to identify the root cause before you reinstall.

Date and ride conditions

Hole location (tread side, rim side, or sidewall)

Number of holes (single or paired snakebite)

Suspected cause (debris, pinch, rim tape, valve, blowout)

What I found in the tire casing on inspection

Tire pressure I was actually running

Action taken to prevent a repeat

Checklist: Wheel Security and True Check

[ ] Wheel seated fully and squarely in the dropouts
[ ] Quick-release lever needs firm effort to close and leaves a palm imprint
[ ] Thru-axle threaded fully and torqued to spec
[ ] Wheel spins centred between brake pads or caliper with no rub

[ ] No side-to-side rim wobble while spinning
[ ] All spokes feel evenly tensioned when plucked

Brakes and Shifting

Set pad clearance and lever feel, replace worn pads or cables, and index your gears for clean shifts.

Exercise: Brake Setup and Lever Feel

Adjust your brakes for correct pad contact and clearance, then test the lever feel. For disc brakes, practice the loosen-squeeze-tighten centring trick to eliminate rotor rub.

• Do the pads contact the braking surface squarely, missing the tire and the frame?

• How far does the lever travel before it firms up, and does it stop well short of the bar?

• If you have disc brakes, did the centring procedure remove the rub?

• Did you keep all oil and lube away from the rotor or rim surfaces?

Exercise: Index the Rear Derailleur

Following the limit-screw then cable-tension sequence, index your rear derailleur in the stand. Then run every gear up and down to confirm each shift lands in one click.

• Did setting the H and L limit screws stop the chain from overshooting either end?

• When a shift to a larger cog was slow, which way did you turn the barrel adjuster?

• How many quarter-turn adjustments did it take to get clean shifts across the cassette?

• Which gears, if any, still hesitate, and does that point to limits or tension?

Worksheet: Brake and Shift Service Record

Record what you inspected and replaced so you know when each wear item was last touched.

Date of service

Brake pad condition front and rear

Pads replaced (yes or no)

Brake cables replaced (yes or no)

Pinch bolt torque set to (Nm)

Barrel adjuster final position notes

Shifting quality after indexing (1 to 5)

Drivetrain Care and Seasonal Tune-Up

Clean, measure, and lube the chain, check bearing systems, and run a complete seasonal service.

Exercise: Chain Clean, Measure, and Lube

Clean and dry your chain, measure it with a chain checker, then apply one drop of lube per roller and wipe off the excess. Choose dry or wet lube based on your typical riding conditions.

• What did your chain checker read against the 0.5 and 0.75 percent marks?

• Based on that reading, does the chain need replacing now or can it keep going?

• Did you choose dry or wet lube, and why for your conditions?

• After wiping, does the chain look nearly dry on the outside?

Exercise: Bearing Play Diagnosis

Check the headset and bottom bracket for play and roughness using the course tests. The goal is accurate diagnosis, not overhaul.

• When you held the front brake and rocked the bike, did you feel any headset knock?

• Was the steering smooth, or gritty and notchy, when you swept the bars?

• Did the crank have any side-to-side play when you pushed and pulled it?

• Did you hear or feel any grinding when backpedaling, and is it a fix-now or shop item?

Checklist: Seasonal Tune-Up Run-Through

[ ] Bike washed, dried, and frame inspected for cracks near welds and head tube
[ ] Tire pressure and tread checked, casing inspected for cuts and debris
[ ] Wheels secure and spinning true
[ ] Chain cleaned, measured, and replaced if past 0.75 percent
[ ] Brakes adjusted with firm levers and worn pads replaced
[ ] Derailleur indexed and every gear confirmed
[ ] Headset and bottom bracket checked for play and roughness
[ ] Stem, seatpost, and brake-mount bolts re-torqued to spec
[ ] Low-speed test ride completed and signed off

Your Action Plan

1. Assemble the minimum toolkit and complete the My Bike's Spec Sheet worksheet so every torque and pressure value is on hand.
2. Run the ABC quick check before each of your next three rides until it becomes automatic.
3. Practice the timed flat-repair drill twice at home so the roadside version is calm and quick.
4. Start the Puncture Diagnosis Log and use it to fix the root cause of your next flat, not just the symptom.
5. Set up your brakes for correct pad clearance and a firm lever, replacing pads or cables if worn.
6. Index the rear derailleur and run every gear up and down until each shift lands in one click.
7. Clean, measure, and lube the chain, recording the wear reading in the Drivetrain Wear Tracker.
8. Diagnose headset and bottom bracket play, and decide which jobs you will do versus hand to a shop.
9. Run one complete seasonal tune-up following the checklist from wash to test ride.
10. Schedule your next tune-up two to four months out and log it in the Maintenance Schedule template.