Coaching Manual

In Partnership with the Sedona Mountain Bike Academy

2nd Edition - Spring 2025

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Technique Breakdowns - What, why, how?

Introduction

Welcome to the 2nd edition of the Wheel Fun (FUN) Instructor Curriculum. This curriculum was designed as an aid for instructors as they grow their after school bike club program. One of the strengths of the Wheel Fun organization is that each school has its own unique culture and identity. The writers of this curriculum want to celebrate this diversity by continuing to encourage instructor's creativity and individuality. While this curriculum may serve as a solid coaching foundation, there is simply no substitute for being able to read group dynamics and adapting to student's needs. By listening and being present with the students, instructors have the ability to deliver a safe, fun, and effective group session to their team - More skills, more fun!

The main goals of the FUN Curriculum are:

1) To have an updated resource for teaching modern day riding techniques
2) Lesson plans for quick reference, to aid instructors out in the field
3) Establishing a home for WF information, contacts, and documents
4) Making sure that all students stay safe, learn something new and have fun!

FUN Background History

Wheel Fun's (FUN) mission is to create and promote mountain bicycling opportunities for young riders of all skill levels throughout Arizona. FUN currently operates after-school mountain bike clubs in 41 schools. These after-school clubs are open to all students and there is no charge for FUN's programs.

FUN is an IRS designated 501(c)3 non-profit corporation and an Arizona Qualified Charitable Organization, QCO Code-22105. Donations to FUN are eligible for Arizona state income tax credits.

The Cottonwood Oak Creek School District named the program as a Model Program in May 2019. As the District's first Model Program, FUN is promoted to the community as an example of how businesses and nonprofits can make a difference in the schools. In August 2019, This program was also selected as one of five Shining Stars County-wide by the Arizona Community Foundation of Yavapai County for the transformative work it's performing in the community. FUN's Verde Valley after-school Mountain Bike Club Program was the sole 2022 recipient of the AZ Center for Afterschool Excellence's state-wide Program Award of Excellence. FUN was named

Collaborator of the Year by the Arizona Community Foundation of Sedona in May 2022 and received a letter of commendation signed by Governor Ducey in August 2022. One of FUN's co-founders was awarded the James L. Oberstar National Award for Outstanding Work in Bicycle Advocacy by PeopleForBikes in February 2023. FUN was also named the 2024 Non-Profit of the Year by the Arizona Community Foundation of Sedona.

FUN Contact Information

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Policies and Procedures

For new instructors, it is important to know FUN's policies and procedures.

1) In the event of multiple coaches at a school, one will be designated by the coaches to be the main school contact for interaction with the Program Director.

2) Photo releases for all FUN bike club students can be collected from school administration. Please be mindful before sharing any photos of your club.

3) FUN instructor to student ratio is (5:1) five students to every one instructor. This will create a safer environment for students and allow for more creative practice options for instructors.

4) FUN schools require volunteers to maintain a Level 1 IVP fingerprint clearance card. The fingerprint application cost is $75 that can be reimbursed by the FUN board. Each school has its own set of volunteer requirements, so please check in with the head coach about specifics.

5) Bike clubs must host an end of year party to wrap up their team's journey on bikes. FUN has a budget allocated to reimburse the parties for refreshments, ice cream, or any treats that are reasonable for students.

6) Head coaches may be donated bikes during the season or through our local bike shop resources. Some qualifications to consider when donating bikes to students in need:
    a) Public elementary school students in grades 3 through 8
    b) Demonstrates the need and desire to own a bike
    c) Exceeds school standards for, conduct, attendance, and citizenship
    d) Students selected for a bike award will be measured for proper sizing and also given a helmet so that they can ride at home.

7) All coaches are encouraged to travel to at least one other school or ride location to ride with another club. Use the head coach contact page in this manual to set up rides throughout the year.

8) Additional bikes may be possible for new kids who do not fit existing bikes.

9) Flash Reports (used to timely report incidents to headquarters) must be used for any reasonable accidents or injuries that occur with students during bike club practice. Please email flash requests and reports to: info.wheelfun@gmail.com

10) When practical, coaches will communicate (in person or through the phone) to other coaches and the Program Director, to share ideas about improving club rides.

How to Use this Manual

Lesson Plans

The FUN curriculum's main objective is to provide lesson plans and creative teaching options for the team of instructors. Because of this focus, the largest section of content is dedicated to 20 outlined lesson plans. Lesson plan 1 starts with breaking down the 101 fundamentals and safety measures needed to feel more confident on a bike right away. As coaches move on to the next lesson, they will find many lesson plans may include a small review from the previous lesson. Being that many clubs only meet once a week, this is a great way to help with lesson retention. After the review, the lesson plan will next introduce a new skill that is progressively more advanced. Instructors have sequentially phased skills, games, and techniques so that students do not get overwhelmed. When presenting the curriculum, first examine if the selected lesson plan is safe for the ability level of the team. Will they effectively learn a new skill? And is it fun?! The goal is for coaches and students to find it to be all of the above.

Technique Breakdown

Every lesson plan in this curriculum focuses on one or two progressive skills. These skills will be identified at the top of each lesson plan so that the instructor can get a quick overall feel for the practice plan and direction. For more advanced instructors, they may run with a general outline. For instructors who need a little more planning and information, every skill is referenced with its corresponding "technique breakdown" page. The breakdown pages go into greater detail as to the "what", "why", and "how" to do each skill.

Games

Instructors should always make sure that fun is near the top of their priority list - especially with young riders! There is a heavy amount of technical information in this curriculum but if it can't be related in a fun way to students, it is significantly less likely

to be well received. In each lesson plan, there will be a page number referencing the daily game. Use the game appendix before practice, or on the fly if coaches need help remembering how to play. Be real, be genuine, and have fun!

There are also games listed in the Game Index that do not revolve around mountain biking. A few are aimed at building group connection at the start of the season, while riders are still getting comfortable with one another. Some of these are targeted at debriefing a practice through review and reflection, to increase retention of skills. There are also those that can be used for downtime during practice (i.e., waiting for someone to fix a mechanical issue, transporting the team to and from the trails,). This can minimize students getting into mischief and build positive comradery within the team.

Forms

FUN Coaching Manual & Waiver
wheelfun.org

Certified Teaching Methodology

With all of these skills and techniques available to teach, it is important to deliver this information with consistency and integrity. Following the Professional Mountain Bike Instructors Association (PMBIA), Bike Instructor Certification Program (BICP), and National Interscholastic Cycling Association (NICA) guidelines support consistent coaching that is congruent with the current certified mountain bike methodology. Below are some key points to keep in mind while engaging with students:

Every student learns differently. PMBIA identifies students as being either “thinkers” “doers” and “watchers”. Having a lesson plan that caters to these different types of learning will offer the best chance of the information being successfully absorbed.

Teaching is two way communication. Listening is one of the coach’s greatest tools. Being open to feedback and then applying a solution will address student confusion in real time. Make sure to ask for feedback, otherwise it may not be expressed.

When it’s time to introduce a new idea, use the “PMBIA Instruction Wheel”: Explanation (10%), demonstration (10%), practice (60%) and feedback (20%)

Complete explanations help ensure learning. In this curriculum, “technique breakdowns” have been introduced with the PMBIA teaching structure of: What? Why? How? Covering these three questions when introducing new ideas will keep instructors on track as well as guide students to an in-depth answer.

Learning requires progression. The number one priority at WF is the safety of the students. Creating a safe and encouraging learning environment is critical to their learning progression. The WF curriculum is designed to progress through 20 lessons increasing the difficulty required with skills and techniques.

Constructive Positive Feedback. Students need to know how they can improve. How this information is presented will often determine how it is received. Adding a positive spin to constructive feedback is a great way to start a critique. Always be real and honest, but it’s how a coach positively presents the information that matters!

Lesson Plans

Lesson 1

Skills of the Day:
Neutral Position (pg 37)
Ready Position (pg 37)
Introduction to Braking (pg 38)

Equipment Needed: Cones, pool noodle (optional)

Bike Club Introduction:

- Arrival of students, welcome to team, overview of practice
- Name Game: Have each rider share: name, what are they most looking forward to learning, and spirit animal/favorite trail snack/best birthday present/ect.?)

The Daily Grip:

- Establish team expectations, Five Finger Commitment (pg 52)
- Bike & Equipment Safety Check (Bike Safety Check (pg 52)

Skill of the Day:

- In an open flat area, set up a lane of cones. Introduce Neutral Position and Ready Position. Demo shifting from one to another and have the team file through the lane of cones as coaches offer feedback.
- Discuss the broader theory of body position and how riders continually reposition their body to adapt to the trail. Position a bike on a set of stairs to demonstrate moving forward on the climb, and shifting back on the descent.
- Before the ride begins, for safety, discuss a general introduction to braking (continued in the next lesson) and the importance of using both brakes with modulation

Group Ride

Game:

- Bike Limbo (pg 61)

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 2

<u>Skills of the Day:</u>
Review Neutral and Ready Position (pg 37)
Braking (pg 38)

Equipment Needed: Cones, rubber chicken (optional)

Welcome to Bike Club Practice:

- Arrival of students, overview of practice
- Quick review of names

The Daily Grip:

- Trail Etiquette (pg 56)
    - Who has the right of way (bikes yield to everyone else)
    - Share the trail

Skill of the Day:

- In a flat area, lay out a lane of cones. Quickly review the neutral and ready position from Lesson 1. Have the team demonstrate their retention of these techniques.
- Braking (pg 38)
    - Review one finger braking and the importance of both brakes.
    - Set up a lane of cones and place a rubber chicken at the end of the lane, indicating the 'cliff edge' (3-4 cones lined up touching one another can alternatively work).
    - Ask riders to pedal at a steady pace, coast, and stop before they hit the chicken/cones, using just their rear brake. Discuss disadvantages and higher tendency of skidding due to just using the rear brake. (For more advanced groups, indicate a "no braking zone" in the first two-thirds of the lane. Riders are not permitted to use their brakes in this area, only afterwards (between the last third of the lane of cones and "cliff edge"). This condenses the amount of time they have to use their brakes, encouraging more precise braking.
    - Next, in a low ready position, ask riders to pedal, coast, and then stop before the rubber chicken by just using their front brake.

Discuss the increased stopping power by using just their front brake, but potential to be propelled over the handlebars.
    - Then invite students to pedal, coast, and stop before the chicken by using both brakes. Look for no skidding (‘ninja’ braking) and one finger braking techniques.
    - Challenge riders by asking them to go faster through the lane of cones.

Group Ride

Game:

- Red Light, Green Light (pg 61)
- Slow Race (65 pg), conducted on an open descent, looking for proper braking technique as slow as possible

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 3

Skills of the Day:
Review Braking (pg 38)
Shifting (pg 39)
Cadence (pg 40)

Equipment Needed: Cones, floor pump, hand pump, electronic tire gauge (optional)

Welcome to Bike Club Practice:

- Arrival of students, overview of practice
- Quick review of names

The Daily Grip:

- How to pump up a tire
  - Discuss consequences of not checking tire pressure and riding on under-inflated tires, riding intentionally with a lower tire pressure (more traction but higher chance of pinch flats), and over inflating (faster roll, less comfortable of a ride, less traction).
  - Explain benefit of a floor pump (efficient, pumps up tire fast) versus hand pump (portable, but not as efficient).
  - Show use of electronic tire gauge and demonstrate how much more accurate it is compared to a floor pump.

Skill of the Day:

- Review one finger braking, why it is important to use both brakes
- Shifting
  - Discuss where shifters are located on the bike, how to use them to make it easier or harder to pedal
  - Make sure students understand that shifting is done when the rider is pedaling, and should not be done when stopped.
  - Emphasize preemptive shifting and how to anticipate what is next.
- Introduce the concept of cadence
  - Efficiency vs power
  - How to find the right cadence

Game:

- Granny Gear Challenge (pg 62), inquire whether their cadence was “fast” or “slow” after each round, encourage riders to note which was their favorite round/how out of breath they are after each round/what worked best for them,

Group Ride

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 4

<u>Skills of the Day:</u>
Intro to Climbing - Seated vs Standing (pg 40)

Equipment Needed: None
Terrain Needed: Slight incline (ideally off-road) with space for group to session

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- Trail Etiquette continued (pg 56)
    - Ride in Control

Group Ride (Skill of the day practiced on group ride)

Skill of the Day:

- On the group ride, find a slight hill with moderate to good traction (i.e., a gradual forest road or double track hill)
- Introduce two types of climbing, Seated and Standing (pg 40). Inquire with students the pros and cons of these two types, and which they use more frequently.
- Play Mark the Spot (pg 64) to identify when students need to be shifting to successfully make it up the hill. Incorporate discussion around correct gear(s)/shifting for each type of climbing and how cadence changes depending upon the type of climb.

Game:

- Follow the Leader (pg 63), state that riders not only need to follow the same line, but also the same body position/type of climbing as the person in front of them.

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 5

<u>Skills of the Day:</u>
Review Seated vs Standing Climbing (pg 40)
Crouched Climb (pg 40)

Equipment Needed: None
Terrain Needed: Slight incline (ideally off-road) with space for group to session,

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- Parts of a Bike (pg 54)
  - Dependent upon age range of the group, open up a discussion about different parts of the bike. Identify wheels, spokes, shifters, brake levers, pedals, crank arms, cassette, derailleur, etc.,
- If applicable, use Bike Park Labeling Game (pg 62) for an experiential exercise in small groups.

Group Ride (Skill of the Day practiced on Group Ride)

Skill of the Day:

- On your group ride, find a slight hill with moderate to good traction.
- Review Seated and Standing Climbing.
- Introduce Crouched Climb.
- Continue ride and locate places to practice Crouched Climbs.

Game:

- Foot Down (pg 63)

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 6

<u>Skills of the Day:</u>
Cornering - Level Pedals (pg 42)

Equipment Needed: Cones

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- Trail Etiquette continued (pg 56)
    - Respect the Landscape

Skill of the Day:

- Begin with introducing the concept of using Bike Body Separation. The different ways your bike can move independently from your body.
    - Left & right, forward & back, up & down
- Connect the idea that Bike Body Separation is how riders initiate a corner.
- Cornering: Create a lane and have riders coast through, starting in a ready position and then leaning the bike side to side (windshield wiper arms). Focus on riding a straight line while leaning the bike.
- Set up a gradual, sustained corner and have each rider enter the lane and maintain correct bike body separation for the full duration of the corner. Look for a straight inside arm and level pedals, with the outside hip counterbalancing the bike.
- Once understanding a single gradual corner, have riders participate in Slalom with Cones Game.

Game:

- Slalom with Cones (pg 64)

Group Ride

- Session leaning the bike through corners on-trail.

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 7

<u>Skills of the Day:</u>
Cornering continued (adding footwork)(pg 42)

Equipment Needed: Cones

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- Nutrition and Hydration for Mountain Biking
    - Discuss the appropriate amount of water/snacks for varying lengths of rides. Note how hydration starts the day before the ride and the best way to treat dehydration is prevention. Mention how to carry water/food with hydration packs, hip packs, and bottles.
    - Encourage students to list common signs of dehydration and not enough food (thirst, low energy, introduce the “bonk”).

Skill of the Day

- Begin with revisiting level pedal cornering with Slalom with Cones game.
- Discuss advantages and disadvantages of dropping outside foot.
- Set up a gradual, sustained corner and have each rider enter the lane and maintain correct bike body separation for the duration of the corner with the outside foot dropped.
- Once mastering a single gradual corner, have riders participate in Slalom with Cones Game, with correct outside foot down footwork.

Game:

- Slalom with Cones (pg 64)
    - To increase challenge, make corners different sizes, tighter, or closer in succession.

Group Ride

- Session leaning the bike through corners on-trail.

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 8

<u>Skills of the Day:</u>
Pumping (pg 44)
Discuss Prep for Adventure Ride

Equipment Needed: Cones, fully equipped pack for The Daily Grip discussion

Welcome to Bike Club Practice:

- Arrival of Students, overview of practice

The Daily Grip:

- What's in my Pack (pg 55)
    - Gradually unpack a fully stocked pack (water, food, rain jacket, multitool, tire levers, tire plugs, map, first aid kit, etc.,) and discuss why each item is needed.
    - Encourage students to add their thoughts on what could be added for longer rides or removed for shorter rides.

Skill of the Day:

- Introduce Pumping
    - For schools with a pump track nearby, use the bike park features stressing how to gain momentum without pedaling.
    - For schools without a pump track, find a roller where riders can feel the increase in speed as they push down. Reverse this for riders to get light up and over the roller.
    - For advanced riders, introduce pumping a corner.
    - Explain how riders should ride trails similar to a pump track.

Game:

- Foot Down (pg 63)

Group Ride

Wrap Up:

- Remind students of next practice's adventure ride and what they need to do to prepare.

Lesson 9

<u>Skills of the Day:</u>
How to manage an adventure ride

Equipment Needed: extra snacks, water, tubes, gear for adventure ride

Welcome to Bike Club Practice:

- Arrival of students, overview of route for adventure ride.
- The adventure ride will last almost the entire practice.
- Ask each student to set a goal or identify a new skill they hope to use on the adventure ride.
- Introduce the idea of pacing a ride. Why is it important to save energy for the entire duration of a ride, or specifically the end?
- Stretching Circle (pg 67)

The Daily Grip:

- Navigation: How will riders navigate during our adventure ride?
    - Maps, cell phone app, or gps.
    - Emergency plan

Skill of the Day:

- How to pace an adventure ride.

Adventure Ride

Wrap Up:

- Ask students one new accomplishment they had on the adventure ride
- Remind students of party details for next week

Lesson 10

Skills of the Day:
Review of All Skills

Equipment Needed: Cones, miscellaneous equipment for review

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- Trail Etiquette continued (Pg 56)
    - Review and Ride Open, Legal Trails

Skill of the Day:

- Review all skills covered
    - Neutral and Ready Position (pg 37)
    - Braking (pg 38)
    - Shifting and Cadence (pg 39-40)
    - 3 types of Climbing (pg 40)
    - Cornering, Level Pedals and Outside Foot Down (pg 42)
    - Pumping (pg 44)

Game/Group Ride:

Student's choice

Team Party:

- Coaches may throw an ice cream party for students which can be reimbursed with FUN funds.

Wrap Up:

- Ask each student to share their favorite memory from the last 10 practices.
- Ask each student to set a goal for what they still want to work on when the team reunites.
- Say goodbyes for fall break.

Lesson 11

<u>Skills of the Day:</u>
Review of All Skills

Equipment Needed: cones, rubber chicken

Welcome to Bike Club Practice:

- First day back from winter break
- Arrival of students, overview of practice
- Ask each student to share one fun memory of their time away from Bike Club.

The Daily Grip:

- Review Bike Safety Check (pg 52)
    - Ask for individual riders or small groups to perform Bike Safety Check on coaches bikes.
    - For increased difficulty, ask riders to review tire pressure and pump up tires as needed.

Skill of the Day/Group Ride :

- Review all skills covered while out on a group ride. During the first half of ride:
    - Neutral and Ready Position (pg 37)
    - Braking (pg 38)
    - Shifting and Cadence (pg 39-40)
- During the second half of ride:
    - Three Types of Climbing (pg 40)
    - Cornering, level pedals and outside foot down (pg 42)
    - Pumping (pg 44)

Game:

Slalom with Cones (pg 64)
Foot Down (pg 63)

Wrap Up:

- Rose, Bud, Thorn (pg 67)

Lesson 12

<u>Skills of the Day:</u>
Review Pumping (pg 44)
Wheel Lifts - Front and Rear (pg 45)

Equipment Needed: Cones, rubber chicken or stick (for Up and Over Game)

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- How to Lube a Chain (clean, lube, wipe, ride!)
    - Discuss why it is important - Less noise, preserve drive train, smooth shifting.
    - How to put a chain back on after it falls off.

Skill of the Day:

- Begin with revisiting the concept of pumping
- Ask riders to put their bikes down and jump without bending their knees (very difficult to do, comparable to lifting the front wheel without compression). Then ask them to jump while bending their knees (much easier, equivalent to adding compression). This further illustrates the importance of a strong compression in order to elicit a strong rebound.
- Wheel Lifts: Start with instructing front wheel lifts through a lane of cones and no obstacles. Encourage riders to find their lift through a larger compression.
- Play Up and Over to incorporate timing with front wheel lifts.
- Instruct Rear Wheel Lifts through a lane of cones.
- Play Up and Over to incorporate timing with rear wheel lifts.

Game:

- Play a combination of Foot Down (Pg 63) and Up and Over (pg 65). If a rider puts a foot down or hits an obstacle, they are out.

Group Ride

- Session wheel lifts on trail as is feasible

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 13

<u>Skills of the Day:</u>
Review Front and Rear Wheel Lifts (pg 45-46)
Sequential Wheel Lifts (pg 47)
Level Wheel Lifts (pg 46)

Equipment Needed: cones, rubber chicken or stick (for Up and Over Game)

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- Navigation, How to Read a Map (pg 57)
    - Discuss why it is important to have a map, and the pros/cons between using a phone app/GPS/physical map.
    - Depending upon group's age and comprehension, some possible topics to cover are:
        - Finding rider locations on a map
        - Reading the key
        - Measuring distance from point to point
        - Reading topographic lines

Skill of the Day:

- Review Front and Rear Wheel Lifts through a lane of cones.
- Introduce Sequential Wheel Lifts, discuss instances on trail when utilized. Practice skill by playing Up and Over to improve timing.
- Introduce Level Wheel Lifts, have riders practice first without obstacles and then play Up and Over.

Game:

- Play Up and Over (pg 65) with larger obstacles or multiple obstacles.

Group Ride

- Session various wheel lifts on trail as is feasible

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 14

Skills of the Day:
Ratchet Pedal Stroke (pg 48)

Equipment Needed: Cones, phone with navigation apps, and GPS for demo.

Welcome to Bike Club Practice:

- Arrival of Students, overview of practice

The Daily Grip:

- Navigation (pg 57), Phone Apps and GPS
  - Review various ways of navigating while riding discussed last practice
  - Highlight potentially detrimental aspects of using technology in the wilderness (battery life, potential to break,)
  - Discuss Phone Apps (Trail Forks, MTB Project,), demonstrate use to students,

Skill of the Day:

- Instruct ratchet pedal. Explain on-trail use (minimizing pedal strikes, helps propel rider forward while maintaining momentum).
- Have riders practice a ratchet pedal while coasting through a lane of cones. No full rotation of the crank arms allowed.
- Explore use of ratchet pedal in both ready and seated pedaling position, discuss the differences including gear selection.
- For advanced riders have them navigate technical terrain, or up and over curbs and obstacles, with the ratchet stroke. Another way to modify for advanced riders is to ask riders to use their non-dominant foot forward.

Game:

- Slow Race (pg 64) only using ratchet pedal
- Foot Down (pg 63) only using ratchet pedal

Group Ride

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 15

Skills of the Day:
Review Ratchet (pg 48)
Peek and Push (pg 49)

Equipment Needed: Cones
Terrain Needed: Sidewalk or similar step-down to practice Peek & Push

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- Trail Etiquette continued (pg 56)
  - Mind the Animals
  - Identify common species to the area

Skill of the Day:

- Review ratchet pedal with a game (i.e., Foot Down (pg 63) only using ratchet pedals)
- Instruct peek and push maneuver on a sidewalk curb, with a wide open entrance and exit.
- Start in a ready position to make sure students move forward to the bars to “peek” at the trail feature, as well as set up their range of motion
- Look for full extension on of the arms when applying the “push”
- Riders should return to a ready position immediately (as fast as they can while remaining balanced) after full extension.

Game:

Follow the leader (pg 63)

Group Ride

- Session peek and push on trail
- Encourage identification of common species to the area

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 16

<u>Skills of the Day:</u>
Review Peek and Push (pg 49)
Trail Vision (pg 49)

Equipment Needed: Cones, 2”X4” board for Board Balance Game, gear needed to demonstrating fixing a flat tire (punctured tire, new tube, tire levers, CO2 cartridges, tire pump, patch kid, tire plugs)

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- How to fix a flat tire
    - Demonstrate how to fix a flat tire first by letting all of the remaining air out of the tire and then “breaking the bead”.
    - Demonstrate how to use tire irons to remove the tire from the rim
    - Remove the tube and replace with a new tube. Be sure to explain the option of patching a tube for smaller holes.
    - With the tube inside, demonstrate how to put the tire back on the rim and inflate. The advantages of CO2 and hand pumps can be explained at this time.
    - It is critical to show how a tire looks when it is fully seated on the rim. Explain how a rider must inspect 360 degrees of the rim/bead on BOTH sides to make sure that the tire is seated properly.

Skill of the Day:

- Review peek and push using a curb or step-down.
- Discuss trail vision (where a rider’s vision needs to be while riding)
    - Have riders try to ride a trail while only looking at the “now”.
    - Now have riders try to ride a trail while only looking at the “next.
    - Discuss advantages and disadvantages of each. Both the “now” and “next” are critical for riders to anticipate trail features.
- Explore the concept of line choice. For advanced riders, explain how this vision and their line choice can alter the exit speed of a corner.

Game:

- Board Balance Game (pg 62)
    - For increased difficulty, instruct riders to place their nondominant foot forward or ride while using a Ratchet Pedal.

Group Ride:

- Stop and discuss the various pros and cons of different line choices while on trail, specifically identifying faster/smoother/more fun options.

Wrap Up:

- Rose, Bud, Thorn (pg 67)

Lesson 17

<u>Skills of the Day:</u>
Pedal Punch Wheelie (pg 45)

Equipment Needed: Cones, rubber chicken (for Up and Over Game)

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- Mental Side of Biking (pg 58)
    - Ask students to list any thing they feel (emotionally) when on the bike. How do they feel when approaching an advanced steep trail feature?
    - Inquire how biking has helped them physically, emotionally, and mentally.
    - Brainstorm strategies to manage these emotions on trail. (Hint: Breathe, focus, and visualize)

Skill of the Day:

- Discuss and demo on-trail use of Pedal Punch Wheelie.
    - Set up a lane with a line of cones at the end. Have students slow down to a crawling pace before the line of cones and then engage their Pedal Punch Wheelie to clear the obstacles.
    - For advanced students have them try this up and over a curb, adding a rear wheel lift to complete the feature.
    - Explore different gears and the advantages and disadvantages of having a harder vs easier gear.

Game:

- Up and Over (pg 65) using a Pedal Punch Wheelie technique (versus wheel lift)

Group Ride

- Stop to session any features that include a Pedal Punch Wheelie

Wrap Up:

- Rose, Bud, Thorn Debrief (pg 67)

Lesson 18

Skills of the Day:
Review all Skills

Equipment Needed: Cones, first aid kit

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- What to do in an Emergency
  - Depending upon age/ability of the group, discuss a basic emergency response plan. Emphasize staying calm and going to get help.
  - Always carrying a cell phone when on a ride.
  - Being able to handle an emergency starts before the ride begins, by being prepared. This can range from planning out navigation, to having a first aid kit.
  - Review the contents of a first aid kit.

Skill of the Day:

- Review all skills (lessons 11-18) covered, incorporate applicable games per coaches' discretion:
  - Wheel Lifts (pg 45)
  - Ratchet (pg 48)
  - Peek and Push (pg 49)
  - Trail Vision (pg 49)
  - Pedal Punch Wheelie (pg 45)

Group Ride:

- Challenge riders with a more advanced ride that will incorporate many of the skills presented in the skills review.

Wrap Up:

- Remind students of prep needed for an adventure ride next practice.

Lesson 19

Skills of the Day:
Managing an Adventure Ride
Navigation (pg 57)

Equipment Needed: Map, extra snacks, water, tubes, gear for adventure ride

Welcome to Bike Club Practice:

- Arrival of students, overview of route for adventure ride.
- Ask each student to set a goal or identify a new skill they hope to use on the adventure ride.

The Daily Grip:

- Challenge students to navigate this ride together. Maps and cell phone apps can be used by students to find their way. Set waypoints for them to test their navigation skills.
- For a more advanced group, see if they can collect data on distance traveled, elevation gained, or any other riding statistics that relate to the chosen route.

Skill of the Day:

- Being prepared to pace and manage an adventure ride. This ride will take most of class, so talk with students about the importance of pacing their energy levels.

Group Ride

Wrap Up:

- Ask students one new accomplishment they had on the adventure ride.
- Remind students of party details for next week.

Lesson 20

Skills of the Day:
Review of All Skills
Game Extravaganza
Team Party

Equipment Needed: Awards for students, bike shop schwag, local bike shop contact information, party supplies for the end of year party!

Welcome to Bike Club Practice:

- Arrival of students, overview of practice

The Daily Grip:

- Prepare awards that coaches have made for students
    - Share stories and photos from a year in the bike club.
    - Make sure all riders have a connection to a local bike shop where they can continue to get help with their own bikes and stay riding over the summer by handing out bike shop contact information.
    - Surprise the students with schwag and prizes for any deserving club members.

Game:

- Choose whichever games are favorites of the group

Group Ride/Party

- Ice cream party for all riders for completing one year of bike club! Ice cream costs associated with the party can be reimbursed by VVWF.

Wrap Up:

- Ask each student to share their favorite memory from the entire year of team practices.
- Encourage students to express acknowledgment and appreciation for any volunteer coaches or school administrators.
- Ask each student to set a goal for what they still want to work on when the team reunites.

Technique Breakdowns

Technique Breakdowns

Neutral Position

What: The energy efficient body position a rider can choose to be in when coasting down a non-technical section of the trail.

Why: Many trails offer a variety of terrain, ranging from smooth flowy single track to chunky rock technical features. In order to adapt to these features and have the stamina to complete the ride, students are encouraged to learn first how to ride in a neutral position. The neutral position is important because it allows riders to relax and conserve energy that will be needed when the trail becomes more challenging.

How: The proper form for the neutral position will includes:

- Level pedals/even weight distribution
- Standing off the seat
- Eyes ahead and alert
- Legs mostly straight with a small bend at the knees
- Slight hinge at the waist
- Arms mostly straight with a small bend at the elbows
- Heavy feet, light hands
- One finger braking

Ready Position

What: Also known as the “attack position”, the ready position is the low and dynamic body position riders need to be in when riding technical terrain.

Why: Riders who are low and crouched in the ready position have the greatest potential for adapting to any trail features that come their way. The ready position offers optimum range of motion, balance, and stability which will result in better opportunities to overcome trail obstacles safely.

How: The proper form for the ready position will include the following:

- Level pedals/even weight distribution between feet
- Standing off the seat
- Eyes ahead and alert

- Knees bent and out creating space for the bike to move
- Hinge at the waist, back is flat
- Chin above the bike stem
- Elbows out, bent at 90 degrees
- Heavy feet, light hands
- Heel dropped
- One finger braking
- If applicable, dropper post all the way down

Braking

What: The ability to slow down and stop, efficiently and in control. Effective braking on a mountain bike comes from knowing the differences between the front and rear brake, as well as how and when to apply the proper braking technique.

Why: Riders must be able to control their speed at all times. Speed management through effective braking allows riders to corner with the right amount of speed, flow over technical terrain, and slow down with confidence as needed.

How: First riders must understand that effective braking comes from applying gradual pressure. The technical term is brake modulation which refers to the amount of brake pressure the rider can apply when coming to a stop. Use the analogy of a light dimmer switch, as opposed to an on-off conventional light switch switch, to explain modulation to riders.

Second, riders must understand the importance of one finger braking. Modern day brakes should be strong enough to be pulled with one finger. The reason mountain bikers only use one finger on the brake levers is because the other four fingers are used to grip the handlebars safely. As soon as a rider moves more than one finger to the brake lever and off the handlebar, there is less control and strength to hold the handlebars. It is also more difficult to modulate the brakes when two or more fingers are squeezing the brake levers.

For riders with small hands or sticky brakes, this can be very difficult. A minority of riders may have to use two fingers to squeeze the brake levers while they are building up hand strength and dexterity. However this should be discouraged as much as possible as will only create a bad habit to correct in the future.

Third, riders need to understand the difference between the front and rear brake, and when to apply them both. Optimum braking is best displayed by using both

brakes at the same time, however there are situations where only one or the other will offer an advantage.

Front Brake

- More powerful and can stop bike quicker than the rear brake
- Useful when trying to get light with the rear end of the bike
- Very dangerous when over applied in corners because the front wheel will wash out
- Increased stopping power can be tough for beginner riders to control

Rear Brake

- Less powerful than the front brake
- Easier to control when coming to a stop
- More prone to “skid” when used alone without the front brake

The goal is for riders to feel the differences in both brakes. Understanding their advantages and disadvantages will allow for greater control of speed when flowing through technical terrain.

Shifting

What: The ability to anticipate terrain and change gears smoothly on the mountain bike.

Why: Having the ability to shift gears smoothly is easier physically on the rider as well as the mechanics of the bike. Improper shifting (hard shifting) can damage the bike and drivetrain, potentially leaving the rider walking home. It is essential to understand the mechanics of shifting so that a rider can easily climb hills, keep up with the pack, and have the most fun possible!

How: The first and most important rule in shifting is that it cannot be done when the rider is stopped. Doing so can cause a “ghost shift” or surprise shifting after the rider starts pedaling. Riders must be pedaling first, and shifting comes second.

In addition, the rate at which the rider turns the pedals and the amount of pressure the rider applies with each stroke, will determine how smoothly the rider is able to shift. When practicing shifting, less pressure when pedaling will often result in a smoother shift. Riders are encouraged to feel out the differences in shifting both with pressure and cadence control.

Once the mechanics are mastered, the next step is to take it on trail to apply visual anticipation. Being able to anticipate terrain and shift accordingly, will allow every rider to save energy, conquer new features, and feel the flow.

Cadence

What: Cadence refers to how fast the rider pedals. The faster the rider pedals, the faster the cadence. The slower the rider pedals the slower the cadence.

Why: Beginner riders have a tendency to stay in one gear and then get “stuck” when the terrain changes. Finding a cadence that works well for a student will allow them to be more efficient, more easily conquer climbs, and increase endurance for longer rides. Advanced riders will find that adjusting their cadence with technical climbs can be beneficial for power output and torque.

How: When exploring cadence it is beneficial to feel both an extremely high cadence and an extremely low cadence. Feeling the difference between the two will naturally teach riders to adjust to a speed that they can sustain. The key word here is “consistency”. Being able to hold a consistent cadence is critical for bike riders to remain efficient. The more variable the terrain, the more riders will have to actively shift to hold their cadence steady.

Types of Climbing

What: Types of climbing: seated climb, standing climb, hover climb.

Why: Learning how to climb with different techniques will give riders more control and confidence. Each technique has a different advantage and disadvantage. Being able to choose which technique is best suited for a climb is a skill that all riders need to develop so they can adapt to variable terrain.

Why: Seated climb: This climbing technique is great for non-technical terrain. While a rider remains seated, much of their body weight is transferred directly down onto the rear wheel. This weight keeps traction on the rear tire. By remaining seated, the rider will also conserve more energy for those long grueling hills.

The disadvantage of the seated climb is the rider is in a stagnant body position. It will be very difficult to make any dynamic moves or weight shifts up and over obstacles when remaining seated.

How: Seated Climb: The rider remains in the saddle and maintains a sustainable cadence for the duration of the continuous climb. The upper body is relaxed to preserve energy. As climbs become steeper, riders can shift their bottom towards the front of the saddle, bring the elbows in, and down will create tension in between the handlebars. This tension can add power through the legs and increase traction to the rear wheel.

Why: Standing climb: This climbing technique is great for power transfer. Riders can get off of the seat and really use their legs, upper body, and hips to power down on the pedals. This power can create much needed torque when tackling technical power climbs.

Another advantage to standing up is that it uses different muscle groups than when riders are sitting. Alternating muscle groups will help prevent fatigue over the course of a long ride. There are disadvantages to the standing climb such as less traction on the rear wheel/tire, because the weight is predominately shifted on to the front tire. Also standing up tall can be a less stable body position when climbing technical terrain.

How: Standing Climb: Start a standing climb by finding a gear that gives enough resistance to stand tall and push down with force on the pedals. If a rider is in too easy of a gear they will spin out. If they are in too hard of a gear, they will struggle to turn the cranks. Finding the right cadence is critical to successfully applying a solid standing climb. Once the rider is in a gear that works for them, they must now be aware of their body position and how to keep traction on the rear wheel/tire. Leaning too far forward will spin out the back tire, while being too far back will take away much needed power and efficiency. For the upper body, the arms can have a slight bend and be pulling back and down. This added pull from the arms will increase traction on the back tire when the rider needs it most.

Why: Crouch Climb: This climbing technique is a great combination of power transfer, while maintaining balance and stability. The lower body position keeps weight centered over the bottom bracket to increase stability. Being off of the seat allows riders to shift weight dynamically as they adjust to the uneven terrain. Riders still need to be careful of losing traction on the rear wheel/tire when shifting their weight around.

How: Crouch Climb: The crouch climb is the most versatile climb as it can apply well to most climbing situations. The reason for this is the blend of power, dynamic weight shifts, and stability. Riders need to stand up on the pedals and “hover” their bottoms an inch above the saddle. Being off the saddle allows for greater power transfer into the pedals, while hovering (versus standing) allows for greater range of motion, weight shifts, and greater overall adaptability. Unlike the standing climb, “hovering” slightly off the saddle ensures weight distribution stays low. Riders increase their stability on the bike by engaging their core and keeping their torso low.

For the upper body in a crouch climb, having the elbows in and down will create tension in between the handlebars and the rider's core. When standing off the saddle, the rear tire has a tendency to become unweighted, resulting in poor traction (spinning rear tire). To combat this, riders can begin to pull back and down on the handlebars to drive the rear wheel into the ground. The harder the rider pulls, the more traction the rider will gain from their upper body.

Cornering

What: Turning the bike to follow the trail and avoid obstacles.

Why: Mountain biking is rarely done continuously in a straight line. Effective cornering techniques are used to maintain momentum and traction, as well as stay on the trail. Poor cornering can lead to trail damage, through “blowing a corner” (i.e., riding off trail because the rider was unprepared to turn) or skidding (having to stop quickly, locking up the tires, and sliding to cause trail erosion). As good trail stewards, it is critical to emphasize appropriate cornering technique to minimize damage and maintain the singletrack for years to come!

How: The techniques used to corner are dependent on the type of corner. Some examples of types of corners include berms (commonly found in a bike park setting), flat corners, or off-camber corners (where the outside of the corner is sloping down and away from the direcion a rider is turning).

Across the board, cornering begins with bent elbows and a balanced center of mass (pg 37). To initiate the corner, the rider begins to straighten their inside arm (on a right corner, rider straightens right arm). Their opposite elbow stays bent and up. As the bike starts to lean, the rider’s center of mass shifts in the opposite direction of the bike. This counterbalance when cornering is one way to create “bike body separation”. With the rider's outside hip (center of mass) leaning to the outside, the low body position will maximize traction through the corner. For example, in a right corner, the

rider's right arm straightens, the bike leans to the right, and their left hip (center of mass) shifts to the left.

Variations of this include maintaining level pedals, or not. There are pros and cons to each technique:

- Outside Foot Down is a technique that allows riders to hold their balanced body weight through a corner for a longer period of time. This is encouraged when riders have time to "drop the heel". Doing so will reward them with a tighter cornering radius and more bike body separation.
- Level Pedals is fantastic for circumstances where dropping a pedal is not conducive, such as in rock gardens or in corners occurring in quick succession. By maintaining level pedals, a rider is more prepared for whatever obstacles are ahead and does not need to be preoccupied to return back to level pedals after the corner is complete. For this reason, using level pedals increases traction for corners that are more at an apex and require a quick rebound. For more advanced riders who are experimenting with 'pumping' through a corner, having level pedals increases the rider's power and traction by weighting the bike equally between both legs.

  It is not uncommon for riders to struggle creating enough bike-body separation when their pedals are level. If this is a challenge, instructors can cue riders to sink lower into a ready position, so they increase their range of motion and have more room to lean their bike the way they want to go.

While initiating a corner, a rider needs to be mindful of their trail vision. Oftentimes, it is helpful to think of having "eyeballs" on the hips and belly button (as well as the head). Cue riders to look through the corner with all of their five eyeballs. When executed, this concept will aid in a more exaggerated counterbalance of the body and lean of the bike. The rider needs to look where they want to go, and the bike will follow.

Additional Notes: Proper cornering technique is notably more challenging when the rider does not have a dropper post. This is because their seat is higher up and will hit the inside of their leg sooner, so the bike will be unable to lean as significantly. To adjust for this, riders must create space in between their legs for the bike to lean. A slight flair (wide knees) of the legs will help. In addition to this, having student's drop

their seat while working on practicing these techniques will be beneficial. More advanced riders can use a cross country race tactic that has riders shift their weight forward, allowing the saddle to pass behind their backside when the bike leans.

Pumping Terrain

What: Pumping refers to combining the rider's weight and dynamic body movements to build momentum through transitions on a trail. It is important to note that pumping is not done when pedaling, but when a rider is using momentum to coast forward with level pedals.

Why: Pumping offers many advantages:

- Increases speed - Sometimes pedaling through technical terrain is not an option due to obstacles preventing a full pedal stroke (i.e., rocks, roots,). Being able to pump through terrain with the pedals level is a great way to clear obstacles while gaining momentum.
- Better traction - Being able to weight and unweight the bike is an essential skill that will dramatically improve traction. When a rider becomes heavy on the bike their tires will hook up with the ground through better traction, increasing a rider's confidence.
- Flow and style - Riders who can adapt to a trail with solid pumping technique not only ride faster and smoother, but they also start to develop their own riding style. It is important for the rider to find their own flow and rhythm when growing as a mountain biker.

How: Whether a rider is at a bike park or on their local trail, there are bumps, slopes, and berms all around. Being able to utilize these features to gain speed and traction is key. There are several steps needed in order to pump correctly.

1) The first step when approaching a bump or upward slope is to initiate a pre-load. The pre-load should be timed for when the rider is just before where the bump/upward slope begins to rise. This permits the rider to time the rebound of their compression and "get light", carrying the body weight up and over the next bump/slope. Without a preload the rider's weight will travel directly into the upward slope, causing them to lose speed.
2) The second step in pumping happens after the rider has reached the top (apex) of the bump. At the top of the feature, riders must then push down the backside

of the slope with both feet and hands (with force!) to multiply their weight and speed. The harder the rider pumps and pushes down, the more speed they will receive in return.

3) Depending on the terrain or bike park features, it may be necessary to start the whole process again if there is another bump/slope coming up.

Pump tracks are great tools to learn on because they are designed to let a rider find their flow without pedaling. All of the speed and flow must come from pumping. On trail pumping techniques are often forgotten about because natural features are more difficult to recognize out in the wild. Riders are encouraged to start to train their trail vision to start riding trails like a pump track.

Wheel Lifts

Front Wheel Lift

What: The ability to lift the front wheel off the ground when starting in a neutral position.

Why: The front wheel lift is an essential skill that every rider must learn. Wheel lifts are the foundation for many skills and transfer over to many on trail situations. The most common example is using this technique to lift the front wheel up and over obstacles on the trail. Without the lift, larger objects will slow down a rider or stop them all together. Other techniques discussed in this document begin with a front wheel lift, but incorporate additional steps as well.

How: A rider begins in a neutral body position, coasting at a steady but controlled pace. They then compress their suspension by initiating a pre-load. This is done by getting tall in the neutral position and stomping down through the pedals/bottom bracket. To exaggerate and increase the size of the wheel lift, riders can focus on emphasizing this initial compression. The larger the compression, the larger the rebound. Once a rider has mastered a successful use of a pre-load to lift the wheel, they can begin to integrate the proper use of pulling the handlebars up towards their chest at the top of the wheel lift.

When teaching a front wheel lift, a three step cue for riders is “Neutral, Load, Explode”.

Rear Wheel Lift

What: The ability to lift the rear wheel off the ground when starting in a neutral position.

Why: As step ups and obstacles increase in size, riders will reach a point where they can no longer roll their rear tire up and over. This is where the rear wheel lift comes into play. Having the ability to get light and intentionally guide the rear wheel is an essential skill for riders to learn. Another advantage of this type of lift includes repositioning your rear wheel in tight switchbacks. Sometimes the turning radius is so tight that it can only be managed by lifting and pivoting the rear wheel.

How: Similar to a front wheel lift, the rider begins in a neutral body position. They compress through the bottom bracket by standing up tall, bending the knees and stomping down into level pedals. The larger the stomp, the larger the wheel lift can become. At the end of this pre-load, the bike and body will start to rebound upward. The timing of the upward motion (rebound) must be in unison with the body and legs.

The legs and feet will start with what is typically described as a scooping motion. It is also frequently referenced as a “donkey kick”. As the body moves forward the feet are going to point down and “scoop” back and up to lift the rear end of the bike. The motion is similar to a donkey kick, or smearing something off of the bottom of a shoe. As the legs are lifting the rear end, the rider’s chest begins to lean forward to unweight the back tire. As the rear tire gets lighter, use the weight shifting forward into the handlebars to push back and create tension through the body, between the pedals and the handlebars. When the connection is tight, the feet will have enough force against the pedals to lift back and up.

Additional Notes

This maneuver is much more difficult for riders to understand than the front wheel lift. Especially when teaching younger students, try to use analogies such as a donkey kick or smearing something off a shoe. This language will resonate much better than any technical terminology that works well with many adults.

Level Wheel Lift

What: Both the front and rear wheels lift off, and land back on the ground, simultaneously.

Why: While riding at high speeds, a level wheel lift can be used to clear obstacles and land back in a balanced, level position. The advantage of this wheel lift

is that it's a much easier technique to use than a manual or bunny hop. Riders can remain centered, low, and compact which results in a much safer lift. The disadvantage of the level wheel lift is that it must be done at higher speeds in order to completely clear a feature.

How: Combine front and rear wheel lift techniques together. Start in a neutral riding position, and compress through the bottom bracket by stomping down through level pedals.

When the compression is complete, the bike and body start to unload, use the upward momentum to lift the bike. Timing is everything as riders use the scooping technique from the rear wheel lift, and the lifting technique from the front wheel lift. The handlebars pull towards the chest as the feet scoop back and up. When done properly the rider will remain balanced lifting both wheels up together and placing them back down together.

Sequential Wheel Lift

What: A wheel lift where the front tire leaves and returns to the ground, followed by the rear tire leaving and returning to the ground.

Why: This maneuver is helpful for clearing obstacles with both tires, typically when moving at slower speeds when the front and then rear tires can be timed to clear an obstacle.

How: Follow the technique for a front wheel lift, and immediately follow with a rear wheel lift. Timing is key with this technique. The faster a rider's speed, the quicker the sequential wheel lift must become. Add challenge to your students by increasing and decreasing speed during their sequential wheel lifts.

Pedal Punch Wheel Lift

What: This is an alternative technique to lifting the bike's front wheel, as it starts from a slow, seated pedaling position.

Why: The pedal punch wheelie is helpful for on trail scenarios when the rider is looking to lift the front tire, but does not have the speed or body position to fit in a standard front wheel lift. This could be the case when a rider is in a seated climbing position, or the trail has decreased a rider's speed immediately before a step up.

How: The rider begins in a seated pedaling position with relaxed arms. Moving at a steady and controlled pace, the rider moves one pedal to the top of a pedal stroke

(12 o'clock). The rider pauses their pedal stroke here for a moment (to disengage the chain), and then with straight arms pushes (or punches) the pedal down. The force of the pedal stroke travels through the body, shifting body weight back and lifting the front wheel off the ground. It is important to keep the arms straight and not to pull on the handlebars.

Additional Notes

Gear selection - If the selected gear is too difficult the rider will not be able to apply enough force to lift the wheel off of the ground. Alternatively, if the gear is too easy, their punch may lift but it will be too short and difficult to maintain. Have riders experiment by going up or down one or two gears until they find one that works for them.

During practice of this mauver it is critical for riders to always maintain one-finger braking, especially on the rear brake. In the case that a pedal punch is unexpectedly too powerful, the rider might "loop out" and end up over rotating onto their backside. The rear brake acts as a safety net. When applied during a lift, it will throw the front wheel back onto the ground. Experiment using the rear brake during small wheel lifts, and gradually progress to larger ones.

Ratchet

What: A modified pedal stroke used when forward momentum is still needed, and the trail limits a full rotation of the pedals.

Why: Rocks, tree roots, or other trail obstacles can prohibit a full pedal stroke. In order to maintain forward movement, this modified pedal stroke continues to propel the bike. Riders are able to maintain clearance over these obstacles by returning to level pedals after each ratchet stroke.

How: A rider begins in a balanced ready position. The easiest way to describe a ratchet pedal is to picture each pedal stroke as an analog clock. Starting with level pedals (3 o'clock and 9 o'clock), back pedal a small amount bringing the front pedal to 10 o'clock (for left foot forward riders). To increase forward momentum, pedal forward until the front pedal is at 8 o'clock. Riders must then backpedal so the front pedal returns to 10 o'clock to begin another ratchet stroke. Repeat this motion until the rider has navigated the terrain safely. The larger the obstacle, the smaller the ratchet stroke must be for successful clearance.

Notes: For first-time learners, instruct the ratchet pedal from ready position. However, on-trail application may indicate use of a ratchet pedal while in any of the various body positions used while riding (i.e., neutral position, seated climbing position, etc.,).

Peek & Push

What: The term “peek & push” refers to peeking over the edge of the feature to ensure the rider is ready, and pushing the bike out in front while shifting weight back, to absorb the change in terrain.

Why: When a rider descends down a change in pitch (approximately the size of a sidewalk curb or larger), their balance point needs to absorb the change in terrain through a shift in body position. There is a moment when the front tire is on a different level than the rear tire. To absorb this change in pitch, there is a momentary shift in body position. Without this shift, a stiff rider’s center of mass will be thrown off it’s balance point, increasing the chances of crashing or being caught unprepared for features ahead.

How: For this maneuver, always encourage riders to scope the feature before riding. Once confirming the feature is within their ability, enter in with a low ready position. As the front tire begins to roll off the edge of the step-down, the rider straightens their arms and shifts their weight back and down (think of the rider’s butt almost touching the rear tire). At this moment, it feels as though the rider is pushing the bike out in front of them.

Then as the rear tire rolls down the feature and onto level ground, the rider snaps back to the ready position with bent elbows, chin over stem, and weight centered on the bike. The faster the trail speed, the faster the peek & push technique will take place. At high speeds, the rider will demonstrate the quick “push” technique by punching the handlebars down and returning to ready position immediately.

Trail Vision

What: Strategically looking at the trail to better anticipate and perform on the upcoming terrain.

Why: Each rider has objectives, whether that be to increase speed, avoid injury, progress their technique, or just have fun in the outdoors on their bike! The rider

utilizes trail vision to focus on the trail, anticipate upcoming features, and achieve their riding goals. The farther down the trail a rider is able to identify trail features, the more time they will have to respond. It is important to recognize that trail vision does not only reference looking farther ahead. In certain situations, a rider must look directly at the technical feature in front of them. Thus, trail vision is a dynamic focus that requires all of a rider's attention looking both down the trail and in front of them.

How: While riding, use the concept of “now” and “next” to cue a dynamic visual scanning. Essentially, “now” and “next” are two continually changing locations a rider is looking at to collect information. Variables such as trail difficulty, rider’s ability, speed, and trail conditions all impact trail vision.

“Now” refers to trail features that are immediately encountered by the rider’s front wheel. The faster a rider is going, the further away “now” will be from the front wheel.

“Next” references trail features up ahead after the “now”. This can identify features as far along the trail into the distance as is reasonably possible.

Be aware that the more technical a trail is, the more likely a rider can become stuck fixating on the “now”. In these situations, riders need to be encouraged to continue scanning ahead to the “next” in order to maintain momentum, remain dynamic and prepare for what is ahead. Getting stuck looking at the “now” can result in decreased momentum, directing your tire into an obstacle, and less time to react. A helpful cue to prompt riders who are stuck in the “now” is “eyes up” and “look where you want to go”.

The Daily Grip Breakdowns

The Daily Grip Breakdowns

Group Dynamics

It can be challenging to engage all riders for the duration of practice, especially when there is a diverse range of skill levels, athletic abilities, overall interest in biking, or age. There are so many elements out of the coach's control, that a rider's disinterest in practice could very likely have nothing to do with the coach personally. It is the coach's responsibility to establish boundaries and expectations to encourage positive group culture. Ideally, this will help avoid a negative learning environment due to degrading group dynamics.

There are many ways to set these expectations with the team. One way is the Five Finger Contract. It is a great way to set boundaries with the entire group at the start of the season. Each finger of the hand is one component to a supportive bike team. The visual of using five fingers is an accessible and easy reminder to touch back upon as the season progresses.

Thumb = ENCOURAGEMENT - Agreement to work toward group and individual goals through lifting each other up (thumbs up!), no negative commentary when a fellow rider is trying something new,

Pointer Finger = RESPONSIBILITY - Taking responsibility instead of pointing blame at others,

Middle Finger = AWARENESS - Bike clubs and real friendship have no room for negativity and put-downs,

Ring Finger = COMMITMENT - willingness to commit to bike club and improvement of skills, as well as letting things go,

Pinky = SAFETY - the smallest and more vulnerable finger, always behaving with safety as the first priority,

Discuss this Five Finger Contract with the team and ask them to give examples of ways to adhere ("How can you make sure you and your teammates are riding safely? What would it look like to see you encouraging others on our team? Why is it important to be committed to our bike club through the entire season?")

Basic Bike Safety Set-up

Before heading out to ride, a quick bike inspection can minimize injury and mechanical issues. While instructing, encourage riders to get into this habit so they can

take care of themselves when not riding with their team. There are two components to a safe set-up: bike and gear.

Bike - A correctly set-up bike is one that will ride longer, smoothly, safer, and faster. A great way to remember a basic bike set-up is the acronym “ABC”:

- Air: Using a tire gauge or pump, check the tire pressure of the front and rear tire. Support riders in memorizing their correct tire pressure. Lower tire pressure can result in better traction and a softer ride. Tires with more pressure have lower rolling resistance and will be more structurally sound when cornering. The disadvantage of lower tire pressure is that if it’s too low, the tire can fold over in corners. Riders can also get pinch flats and endanger their rims. With a tire pressure that is too high, the ride can feel rough and riders may struggle to find comfortable traction. Educate the bike club to understand which scenarios might make sense to slightly adjust their tire pressure.

  If the student has an air fork or shock, make sure to examine the suspension pressure so that it aligns with the rider's body weight and riding style. More advanced information on how to do this is listed online through Fox Suspension or Sram/Rock Shox.
- Brakes: Standing beside the bike, roll the bike while subsequently initiating each brake. Test for noise, lack of responsiveness, unusual tension and proper fit. Check brakes to confirm they are secure on the handlebars, and ensure they are properly adjusted to comfortably allow for one-finger braking.
- Chain: Check the tension on the chain (make note of any sagging or dirt build up). If possible, while the bike is on a bike stand run through the gears and listen for any crunching/unusual noise. On an even surface, pedal the bike and notice if there is any skipping of the chain when attempting to shift gears, or inability to move the chain into the easiest/hardest cassette cog.
  - Double check the shifters on the handlebars for any movement (tighten if so). Hands should not be required to stretch or significantly move for fingers to reach sifters.

Gear - It is also important to check a rider’s gear to make sure they are safely prepared for the ride. Some key aspects to look out for:

- Helmet - proper fit (snug but not too tight chin strap, covering over forehead and base of skull, no cracks or major imperfections on helmet)

- Hydration Pack - no dangling straps that could potentially get caught in the bike, all buckles are connected and cinched down
- Gloves - ensure there is a proper fit and not impeding riders ability to brake/shift
- Shoes - need to be closed toed, laces tied, with a rubber athletic sole that can grip to pedals
- Pads - proper placement and fit to minimize slipping while riding

Parts of a Bike

_____Having a general understanding of a bike's parts aids in a rider's knowledge of how to operate each component, as well as how to fix potential damage and wear. As the industry evolves, bikes and bike parts continue to change with the times. It is a rider's responsibility to educate themselves on the parts of their bike and to keep up with the ever changing direction of the industry. Below is a diagram that will help coaches identify each part of the bike and corresponding components.

Equipment (what's in my pack)

Mountain biking differs from many other sports because it takes riders into the backcountry, away from civilization. Riders need to be prepared to overcome common challenges on the trail that are caused by environmental factors, bike issues, fatigue, or injury. The largest resource when in the wilderness is a rider's preparedness, which is directly linked to the contents of their pack.

As riders progress in their technical skill and local trail knowledge, the contents of their pack can change depending upon the length of outing and size of group. However, the motto "better safe than sorry" applies and it is an individual's personal responsibility to be self-sufficient no matter who they are riding with.

<u>For all rides:</u>

- Water (16 ounces prior to a ride, 20 ounces per hour during the ride, and 16 ounces after the ride)
- Snacks (One 200 calorie bar per hour of riding time, or more)
- Flat tire repair kit
    - Hand pump (and Co2 cartridges, if desired)
    - Tire levers
    - Tube
- Cell phone with map downloaded, or physical map,
- Multi Tool with allen wrenches compatible to bike and chain brake tool
- First Aid kit
- Sunscreen
- Money
- Lip balm with SPF (optional)
- Tire plugs (optional but very helpful for tire punctures caused by cactus)

<u>For longer or more remote rides, additionally carry:</u>

- Electrolyte tablets to add to water
- Chain lube and small rag
- Derailleur hanger
- Quick link or master link
- Zip tie
- Duct Tape
- Headlamp
- Toilet paper, wet wipes
- Shock Pump
- Rain Jacket, extra layers (if weather appropriate)

Trail Etiquette

What: How riders safely interact with other trail users while on mountain bikes and how to sustainably take care of trail systems.

Why: Most mountain bike trails are shared with other users whether that is hikers, equestrians, or other outdoor enthusiasts. Knowing how to share the trail properly will help keep all trail users safe. Riders must know who has the proper right of way when passing each other, as well as the proper technique to yield.

In order to preserve access to current trail systems and to continue to grow the sport, trail etiquette is increasingly important. As outdoor recreation communities grow, more and more enthusiasts are out on trail. Being able to properly communicate and work through issues will ensure equal access for all.

Another big part of trail etiquette is understanding that trails do not build themselves. Volunteers, the United States Forest Service, mountain bike clubs, and trail building organizations all come together to help share in what they love. “No dig, no ride” is a common motto in the mountain bike community. Many people believe that trail users earn the right to ride trails with environmental stewardship and trail work.

How: The International Mountain Biking Association has broken down trail etiquette into IMBA’s “Rules of the Trail”:

Respect the landscape

- Be good stewards of the natural environment
- Keep singletrack single
- Do not ride muddy trails

Share the trail

- Mountain bikers yield to both hikers and equestrians
- Descending riders yield to climbing riders

Ride open, legal trails

- Do not poach illegal trails
- Stay away from building illegal singletrack

Ride in control

- If the rider needs to pass, slow down, verbally announce yourself or use a bell
- Wait until the other trail user is off the path
- Be extra careful around horses not to startle them

Plan ahead

- Bring proper gear, food, and water so the rider is self sufficient

- Ride with a partner or share the plan, so people know the anticipated route

Mind the animals

- Give animals enough room and time to adjust to you
- Dismount and walk around a horse if it cannot leave the trail
- Be kind

Navigation and Maps

What: Navigation is having the ability to guide yourself and others safely on new trails and in new terrain.

Why: Part of being a mountain biker means exploring new trails. Being able to safely ride in new areas requires skill, preparation and the proper gear. There are a number of tools that mountain bikers can use to navigate new trail systems. Maps, GPS devices, and cell phone apps are just a few helpful resources that riders should be familiar with. These tools are packable, portable, and easy to use. When determining which ones to use, it's wise to take a look at the advantages and disadvantages of each, then selecting which tool(s) are best for the scenario.

How: Maps are the foundation of all navigational tools. Being able to read a map is a critical skill for riders to learn before venturing out on their own. One key point when teaching how to read a map is identifying the key. Start explaining the key so students can understand what all of the lines and symbols mean. From here, coaches can move on to explain how distance can be measured, not only from using the key but also from trail waypoints.

If the coaches have a more detailed map and an advanced group, they can move on to explain topographical features. Being able to read the grade of a climb with a topographical map is a very helpful tool when navigating out in the wilderness on a mountain bike. One of the goals as a mountain biker is to be as self sufficient as possible. Having navigation skills is essential for this independence and for the safety of others.

Map Advantages:

- No battery life
- No cell/gps signal needed
- Foldable, packable
- Solid source of information

Map Disadvantages:

- No GPS location
- Less information storage than cell phone apps
- Usually carried in addition to a cell phone or gps
- No emergency call out

GPS Advantages:

- GPS location and tracking
- Small and packable device
- Some services have emergency GPS calling enabled
- Library of maps can be loaded and interchanged

GPS Disadvantages:

- Limited to the maps and information that were pre-loaded
- No cell phone calling or verbal communication
- Battery life/electronic screen

Cell Phone Advantages

- Small and packable device
- In service calling
- Different app and gps choices
- The most versatile choice all in one

Cell Phone Disadvantages

- Limited battery life/electronic screen
- No service, no data, no calling
- Heat and cold sensitive

Mental Side of Biking

Like many athletic endeavors, mountain biking can be as equally (or sometimes more) mentally challenging than physically demanding. Riders can be in situations that feel scary, overwhelming, uncertain, anxiety provoking, or frustrating. While the large majority of the time the coaches are instructing the physical side of mountain biking, there will be circumstances where the coaches need to support a rider's mental and emotional state.

There are two general types of risk present when mountain biking: inherent and perceived. Inherent risk is the danger that unavoidably comes with fast speeds, technical terrain, outdoor adventure away from civilization, and more. Coaches work to minimize the inherent risk of mountain biking by instructing proper technique, doing safety checks on bikes and equipment, establishing safe norms within the team around spacing between riders while on-trail, and more.

There is also perceived risk, which is where the impression of a situation is dangerous even though statistically it is not. An example of this would be when a beginner rider is scared to ride off a small curb. The rider is not statistically at a high risk to be injured, however emotionally and mentally they feel endangered. These are the circumstances where a rider's emotions distort the reality.

In these scenarios it is important to be sensitive to how a student is feeling and meet them where they are in the moment. Minimize social pressures by removing any unhelpful attention from other students and communicate to co-coaches to shift the team's focus away from the struggling rider. Some additional strategies to calm down a rider after an emotionally stressful situation (crash, disagreement with another student, etc.,) include:

- Empathy - validate the rider's emotional state, ("I bet that crash was really scary for you")
- Reassure - after doing a first aid assessment, share any findings with the rider to help correct their distorted perception of reality, ("Squeeze my fingers... it feels like a strong grip so that tells me you probably didn't break a finger. And I checked out your bike and nothing looks broken which is good. I think it would be helpful to put a bandaid on the scratch on your knee. How do you feel about that?")
- Breathing - if possible encourage deep "belly breaths", by instructing the rider to exhale "like they are blowing out birthday candles" to bring attention to the breath and away from the emotional trigger. Coaches can breathe alongside them as a guide.

Game Index

Game Index

Skill Focused Bike Games

Each of these games focuses on one or a few technical skills from this curriculum. By practicing skills in an amusing (and at times competitive) context, riders will be more engaged and have more fun! Some of the games below are modified from Outdoor Sport institute Bike Curriculum Guide.

Bicycle Red Light, Green Light

Skills Addressed: Braking, bike handling, shifting,

Materials Needed: None

Location: Open flat area

How to Play: Adapt the classic playground game to be played on a bicycle. All riders begin behind a starting line, and the first to cross the finish line wins. One coach yells “green light” and turns their back, while riders begin to pedal toward the finish line. The coach yells “red light” and turns around, at which time riders have to immediately stop. If a rider is out of control and does not stop abruptly (or skids due to improper breaking) they return back to the starting line. Who can make it to the Coach at the finish line, without getting caught moving or skidding during the “red light”?

Modifications: Ask all riders to shift into their hardest or easiest gear for the duration of the game’s round. Compare and contrast how the game was different in different gears. Which was more fun (easier or harder gear)? How much fun would biking be if the bike didn’t have the option of different gears?

For more advanced riders, ask them to practice track stands during every “red light”.

Bike Limbo

Skills Addressed: Bike/body separation through a proper ready position

Materials Needed: A flexible limbo stick (pool noodle)

Location: Open area free of obstacles.

How to Play: This game is played the same as a typical limbo except participants must go under the limbo “stick” while on their bikes. For obvious safety reasons the limbo stick must be easily flexible, and those holding it should be ready to let go or lift up as needed. The idea is to challenge riders to “get low”, but not create a situation where they touch the limbo stick with their helmet.

This game adds an additional variable to ready position and encourages a correct ready position to become 'default', as a rider's brain is focused on ducking below the limbo stick.

Modifications: Ask riders to switch their front foot while coasting under Limbo Stick. More advanced students can also see how low they can get while playing with different body positions on the bike. For example, how far back or side to side they can get on their bikes while going under the limbo stick.

Bike Part Labeling

Skills Addressed: Bike parts and basic bike mechanics,

Materials Needed: Bike part labels, (enough sets for every group of 2-4 riders, labels listing "wheel", "hub", "cassette", "spoke", etc.,), packing tape (to attach labels to bike),

Location: Anywhere, could be classroom/indoor setting

How to Play: Split students into different groups. See if students can tape the correct label to the corresponding bike part. Points will be awarded for each correct answer. Review parts and the purpose of each part as a group. This activity is a great option for inclement weather.

Board Balance

Skills Addressed: Balance, bike handling, trail vision

Materials Needed: Wooden boards

Location: Flat open area with adequate space

How to Play: Lay a length of 2"x4'' and/or 2"x6" on the ground. Participants can practice riding across the boards lengthwise, keeping both wheels on the whole time. Encourage keeping eyes focused on the board's exit (riders have a tendency to look down when nervous, decreasing their chances of success).

Modifications: Explore riding the board in the neutral vs ready position. Incorporate ratchet pedal into the game, where riders need to generate speed while balancing on the board. Ask riders to add wheel lifts while balancing on the board.

Granny Gear Challenge

Skills Addressed: Shifting, bike handling

Materials Needed: Cones

Location: Flat, open area free of obstacles.

How to Play: Set up two lines 20-30 feet apart in an open flat area. Have a "race" where everyone tries to be the first person across the finish line. For the first round, have all riders in the easiest gear. Start the race to the finish line, but do not

permit any shifting. At the end of the round discuss the experience, whether or not riders were tempted to shift, and if they are out of breath.

For the second round, have riders shift into their hardest gear and repeat the race (no shifting allowed). Again discuss what this was like for them.

In the third round, permit riders to shift into whatever gears they would like before and during the race. Discuss how preemptive shifting is helpful on-trail, why shifting is important, and what it would be like to have a single speed bike (without gears).

Foot Down (Don't Touch the Lava)

Skills Addressed: Balancing, slow riding, ratcheting, track stands,

Materials Needed: Enough cones or rope to make a large circle that the whole group can fit into.

Location: Flat, open area free of obstacles.

How to Play: Create a small circle with cones or rope, where everyone and their bike can fit inside. There must be enough space that riders can pedal around but it should be close and tight. Once everyone is inside and riding around in the designated circle, the leader says "go!". From that point on, participants can't put their foot down, take their hands off the handlebars, or ride out of the circle. If they put a foot down they have been consumed by lava and must leave the circle. As riders are eliminated and there is extra room, coaches can rearrange the circle to be smaller and smaller. This will increase the difficulty of avoiding other riders and staying balanced on the bike. The goal is to be the last person left on their bike without getting consumed by the lava or going outside the boundaries. Participants can try to block others through track stands and ratchet pedals, but they cannot make contact with one another's bike or body.

Modifications: Create a smaller "no ride" zone in the middle of the circle, so the end effect looks like a donut. Establish an additional stipulation that riders can only use a ratchet pedal stroke, and if they do a full rotation they are eliminated.

Follow the Leader

Skills Addressed: Riding as a group, bike handling skills.

Materials Needed: None.

Location: An open field where riders can see the leader.

How to Play: Play follow the leader with different challenges along the way: being in different gears, varying body positions, using hand signals, etc. If possible, ride up and over curbs, demonstrate wheel lifts, ride with one hand, do a momentary track stand, etc.,

Mark the Spot

Skills Addressed: Shifting, climbing

Materials Needed: Marker for each rider

Location: Area with at least one uphill.

How to Play: Ask participants to use a stick, rock, or other object to mark where they think they will shift before the climb. Have participants ride up the hill. Did they shift at their marker? Earlier? Later? How many gears did they shift? Do a few rounds where each rider is allowed to adjust their marker and compare their experiences.

Obstacle Course

Skills Addressed: Bike handling, hand signals, riding as a group, slow riding, stopping, any other desired skills

Materials Needed: Cones, sidewalk chalk, rope, 2”x4” or 2”x6” board lengths, firewood pieces or anything creative that can add a fun obstacle course twist

Location: Open area without risk of vehicle traffic.

How to Play: The staff has full creative freedom to develop an engaging obstacle course. Use cones (or sidewalk chalk if on pavement) to lay out a path for participants to ride. Incorporate challenges such as board bridges, roll-over obstacles, or a sidewalk drop. Ride through different terrain (sand, dirt, pavement, grass,) as is feasible at the location. Add in off-bike activities like a basketball shot or ball toss. See who can ride it the slowest and the fastest. If weather permits, perhaps there are coaches with water guns at various points of the course as an option for riders to get wet. Challenge participants to use hand signals when turning or stopping. There are infinite possibilities.

Slalom with Cones

Skills Addressed: Cornering, bike handling

Materials Needed: Cones or other markers

Location: Open area with adequate space

How to Play: Set up a “slalom course” using cones for riders to make turns through. Change the distance and angles as riders become more proficient. Focus on correct body position before increasing speed or changing terrain. Then have participants try leaning their bikes (bike body separation) into the turn with correct technique.

Modifications: Ask riders to practice both level pedals and outside-foot-down cornering techniques.

Slow Race

Skills Addressed: Balance, slow riding, ratcheting, track stands, brake modulation

Materials Needed: Cones to make end zones

Location: Open area with enough space for all participants to line up side-by-side.

How to Play: Set up two lines 20-30 feet apart in an open flat area. Have a "race" where everyone tries to be the last person across the finish line. They must stay in a straight line, continuously moving forward, and not touch their feet to the ground.

Modification: For more challenge, do it on a downhill while emphasizing smooth braking and balance. Alternatively ask riders to solely use ratchet pedals, and if they do a full rotation they are disqualified.

Wheel Up and Over

Skills Addressed: Wheel lifts, bike handling

Materials Needed: Obstacles to lift wheels up and over (i.e., rubber chicken, stick, 2"X4" planks, line of cones, etc.,)

Location: Flat area with adequate space

How to Play: Line up riders and ask them to ride toward an obstacle (or a line of obstacles) to practice their wheel lifts. Practice first with just the front wheel, then the rear, then sequentially, and then as a level wheel lift. Coaches can also incorporate bunny hops as the group progresses. Discuss which was easiest/most difficult for each rider, as well as places on trail that these techniques are applicable.

Modifications: Ask riders to minimize momentum and enter with as little speed as possible. Increase the height of the obstacle(s), making it more of a significant wheel lift.

Warm-up Games

These activities are great to get the kids attention and channel their focus before going on a ride or teaching a new skill. These games are also perfect if the team is waiting for the group to be ready to ride (unexpectedly needing to fix a broken bike, a group member is running late to practice, etc.,).

Gotcha

- Have the participants form a circle.
- Have each participant raise their left hand and then place it in front of the person to their left, palm facing up.

- Have the participants point their index finger to the sky with their right hand and then place their right hand finger tip on the hand that is in front of them.
- When the facilitator counts down to 3, the participants try to catch the finger that is in their left hand while trying to not get their right finger caught by lifting up.
- If a participant catches a finger then they get to say “GOTCHA!” Then have them reset and switch hands.
- Make sure every participant has flat palms (look for cuppage). This is a great time to talk about being open minded (pen palm) and respectfully calling each other out on cuppage.

Look Up Look Down

- Have the participants form a circle.
- Everyone looks down at their toes.
- When the facilitator says “Up”, everyone looks up into someone else’s eyes.
- If someone is looking back at them (someone chose to look at them as well), both parties are out of the game.
- Everyone looks back down and the game continues, until the last one or two participants remain.

Lightsaber Duels

- Have the group get into pairs.
- The pairs will face each other, then put their right arms as if they are going to do an arm wrestle.
- Then they ignite their lightsabers by pointing their index fingers out
- Begin to try and poke their opponent in the arm or leg, while maintaining the arm wrestling hold on each other’s hand.
- Whoever pokes first wins the battle!
- The group can then find new dueling partners for the next round.

Knee Tag

- Within a boundary, everyone is ‘It’ and trying to tag anyone else’s knee. Participants can cover their knees but only when they stay in one place. No covered knees moving! Go until there is only one person left.
    - Rules:
        - No running
        - Stay within the boundaries

Steal the Bacon

- Have the participants split into two teams and face each other on opposite sides of a small clearing.
- Each team assigns numbers to their participants.
- The facilitator will yell out a number, for example 1, and the participant on both teams that were assigned 1 race to the middle of the clearing to try and snatch the item in the middle (rubber chicken, water bottle,) and to take it back to their team before getting tagged by the other team.
- Reset, and call a new number.
    - *Eventually the facilitator can call out multiple numbers at once.

Stretching Circle

Pick your top 5 favorite stretches and see if any students want to lead the stretch circle next time!

Wrap-up Games

When working to build group cohesion and continuity of newly integrated skills, a quick wrap-up can be a simple way to add closure to the practice.

What Happened Today

- Challenge the group to say each thing that happened today, in order.

Rose, Thorn, Bud

Go around in a circle and ask each rider to identify their personal rose, bud, and thorn of the practice:

- Rose - What was your favorite thing that happened today?
- Thorn - What was your least favorite thing that happened today?
- Bud - What are you excited about for the next session?

Riddles

These mind games are helpful for when the team is traveling to/from the trailhead with the group. They encourage group focus and minimize distracted energy.

The Green Glass Door

Tell the participants “Only certain things can go through the Green Glass Door… for example: A tree can go through the green glass door but a flower cannot.” The trick is to name a word that has double letters like Green Glass Door.

Umbrella

Tell participants you can go from “Boston to LA” but not to “Ummm…..San Francisco to Portland” The trick is that you can go any place but you can’t go to a place that you say “ummm” in front of.

Grandma’s House…..

“I can take a doll to grandma’s house, but I can’t take a Barbie”

“I can take a butterfly to grandma’s house but not a bug”

The trick is that you can take anything with two letters in consecutive order, and you can’t take anything that doesn’t have two consecutive letters. It’s more difficult if you relate the two items because they think about their relation rather than the spelling.

Black Magic

This trick requires two leaders. Explain to the group that you can read minds and that you can figure out the item that the other person is thinking of. Have person A (the mind reader) go into a separate room. Have person B (the person whose mind is being “read”) tell the group which item they are thinking of. Person A comes back into the room. Now, have Person B ask Person A if it is various items in the room.
i.e. “Is it that gold door knob?”-“No”

“Is it the blue key ring?” – “No”

“Is it the black coat?”- “No”

“Is it the purple bowl?” - “Yes!”

The item will be the one after an item that is black. Have kids pick the item so it’s even more impressive. A variation is that you don’t actually say the color in front of the items and just know that the item will be the one after the black item. It makes it nearly impossible to guess it.

Mentorship in Wheel Fun Bike Clubs

Mentorship is a core element of the Wheel Fun experience, strengthening the positive impact of our free after-school bike programs across Arizona. As a coach, you play a critical role in creating a supportive, engaging, and empowering environment for youth riders. Building connections across a diverse group of students enhances skill development, confidence, and overall enjoyment. Effective mentorship goes beyond teaching bike handling skills—it fosters personal growth, responsibility, and a lifelong love of cycling.

The *Elements of Effective Practice for Mentoring* provide a research-based framework that can be seamlessly integrated into Wheel Fun's model. Below is a summary of the 16 elements and how they apply to our program:

1. Recruitment

Seek to build a diverse and inclusive group of young riders, ensuring all participants feel welcomed and valued in the program.

2. Screening

Wheel Fun's safety-first approach ensures that all volunteer coaches undergo appropriate background checks and training to create a secure and positive environment.

3. Training

As a mentor, understanding trauma-informed coaching, youth development principles, and effective communication strategies helps build trust and engagement with students.

4. Matching

Building positive coach-rider relationships involves recognizing each student's personality, skill level, and learning style, allowing for more meaningful mentorship.

5. Monitoring and Support

Wheel Fun provides ongoing support for mentors to ensure you have the resources needed to navigate challenges and maintain effective mentoring relationships.

6. Closure

Since bike club sessions are seasonal, ensure that students feel a sense of accomplishment, encourage continued riding, and provide opportunities for them to return in future programs.

7. Clear Expectations

Set clear, positive expectations about participation, effort, and respect, ensuring all riders understand their role in creating a supportive club environment.

8. Safety and Youth Protection

Prioritizing physical and emotional safety through well-structured ride plans, proper gear checks, and inclusive coaching practices fosters a secure and supportive space.

9. Inclusive and Identity-Affirming Practices

Recognize and respect students' diverse backgrounds, ensuring all feel seen, heard, and empowered in the biking community.

10. Ethical and Safe Use of Technology

Maintain appropriate communication with students and parents, using Wheel Fun's approved platforms to share updates and celebrate achievements.

11. Family Engagement

Encouraging families to support their child's biking journey strengthens community ties and reinforces the value of mentorship outside of club hours.

12. Closure and Transitions

Providing positive closure—celebrating growth, setting future goals, and inviting students back—ensures continuity in the mentorship experience.

13. Continual Improvement and Feedback

Regularly reflecting on your coaching methods, seeking feedback from students, and adapting your approach enhances mentorship effectiveness.

14. Cultural Responsiveness

Recognizing and valuing the cultural identities of students allows for a more inclusive, relatable, and supportive mentorship experience. In Wheel Fun, this means acknowledging that some students have never had access to trails before, while others have been riding since they were

toddlers. Volunteer coaches help bridge this gap by creating an inclusive learning space where every student feels comfortable progressing at their own pace.

15. Mentor Support Network

Utilizing Wheel Fun's mentor network and resources helps you stay connected, share strategies, and continuously grow as a volunteer coach.

16. Evidence-Based Practices

Aligning with research-backed mentoring techniques ensures that your impact is both meaningful and lasting.

A Typical Mentoring Session in Wheel Fun

Before every ride, mentors and students gather in a circle to share a goal for the day. Whether it's trying a new skill or simply having fun, this reflection fosters a sense of personal growth and teamwork. As the ride progresses, mentors provide encouragement and guidance, ensuring each student feels supported. These moments of mentorship help young riders develop confidence and camaraderie, strengthening the overall impact of Wheel Fun's programming.

By incorporating these elements, Wheel Fun volunteer coaches can foster a culture of mentorship that goes beyond biking—helping youth build confidence, resilience, and a lifelong connection to outdoor adventure. Thank you for being a key part of this mission!

References - Acknowledgements

This curriculum and the development of the FUN after school bike clubs would not be possible without the tireless and generous efforts of our volunteer coaches. With their commitment to our community and passion for growing the sport of mountain biking, the FUN bikes clubs are now in 41 schools throughout the state. (Spring 2025)

Many thanks to the National Interscholastic Cycling Association (NICA), Outdoor Sport Institute, and the Professional Mountain Bike Instructor Association (PMBIA). These organizations' content were an invaluable resource to develop this document. For more information, please visit:

- Outdoor Sport Institute (OSI Curriculum Link)
- NICA (https://www.nationalmtb.org/nica-coaches-resources/)
- PMBIA (https://pmbia.org/)

