

LESSON 3: CLIMBING AND DESCENDING A HILL

Grade-Level Outcomes

Primary Outcomes

Outdoor pursuits: Demonstrates correct technique for basic skills in 1 self-selected outdoor activity. (S1.M22.6)

Individual-performance activities: Demonstrates correct technique for basic skills in 1 self-selected individual-performance activity. (S1.M24.6)

Embedded Outcome

Social interaction: Demonstrates the importance of social interaction by helping and encouraging others, avoiding trash talk and providing support to classmates. (S5.M6.7)

Lesson Objectives

The learner will:

- demonstrate the ability to shift gears and ride in the attack position.
- acquire the skills and knowledge to be able to climb a hill.
- acquire the skills and knowledge to be able to descend a hill.
- acquire the skills and knowledge to be able to complete a sprint.

Equipment and Materials

- Mountain bikes
- Helmets
- Access to a hill or slope
- First aid kit
- Air pump
- Mini tool kit for adjusting and repairing bikes on the go

Introduction

Today, we will review the skills we learned in the previous classes, including shifting gears and turning. You will learn the skills for climbing and descending a hill safely. Once you feel comfortable with climbing and descending hills, you will learn the skills needed for sprinting. Sprinting is the act of passing other riders and typically includes hard, fast strokes of the pedal. You also will learn the importance of social interaction and supporting your peers while biking, which is more important than any bike skill.

Instructional Task: Review Shifting Gears and Attack Position

■ PRACTICE TASK

Review discussion of how to shift and why shifting is needed.

Review discussion about the attack position and why it is important.

Guiding questions for students:

- What does the attack position look like? What are the critical elements?
- When would you use the attack position?

Give students verbal commands related to shifting gears and shifting body weight.

- *Shift up.*
- *Shift down.*
- *Push your hips toward the handlebars.*
- *Get your hips behind the seat.*
- *Pull your torso toward the pedals*
- *Get your shoulders as far away from your feet as possible.*

EMBEDDED OUTCOME: S5.M6.7. Discuss with students the importance of social interaction in mountain biking. It is helpful to discuss helping and encouraging others, avoiding trash talk, and providing support to classmates.

Give students time to ride and observe each other in pairs. While riding, students practice

- shifting from an easy gear to a more difficult gear and the attack position.

Extensions

- Students give each other commands.
- Students combine skills, such as shifting gears while riding in the attack position.

Refinements

- Make sure students understand how to shift their bikes.
- Make sure that students get their bottoms out of the saddle.

Guiding questions for students:

- Can you combine the attack position with shifting? Braking? Turning? Why is the combination of these skills so important for biking?
- How can you encourage and support your peers in mountain biking? How can you translate that to the real world?

Student Choices/Differentiation

- Students who need more instruction can work with you during the individual ride time.
- Students choose the rate at which they work through the tasks.

What to Look For

- Students listen respectfully and raise their hands before speaking.
- Students are focused and trying their best to complete the commands.
- Students are on task in small groups and are respectful of their peers. Students encourage their peers to keep trying and congratulate them when a skill is completed.

A peer checklist will be used to document completion of tasks.

Instructional Task: Climbing a Hill

■ PRACTICE TASK

Discuss skills needed for climbing a hill.

Guiding questions for students:

- How should you position your body when climbing a hill?
- What gear should you be in?
- Should you be out of the saddle?

Demonstrate climbing a hill.

In pairs, students practice climbing a hill. Students take turns observing each other.

Refinements

- Shift into a light gear before climbing.
- Shift as needed to keep a consistent pedal stroke.

Extension

Do a rolling dismount after climbing the hill.

Student Choices/Differentiation

- Experienced bikers may demonstrate for other students.
- Inexperienced students may choose an experienced student to practice with.

What to Look For

- Students are respectful listeners during the discussion and demonstrations. Students feel comfortable adding their input during the discussion.
- While practicing, students shift as needed, making sure not to shift down too early. On the incline, students stand out of the saddle, push their weight forward, have slightly bent knees, and drive their pedals in a downward motion.
- Students encourage and support their peers.

Instructional Task: Descending a Hill

■ PRACTICE TASK

Demonstrate how to safely descend a hill.

Students divide into four lines and practice descending.

Refinements

- Make sure students keep their eyes forward while descending.
- Encourage students to descend the hill in the attack position.

Extensions

- Do a running mount before descending.
- Do a rolling dismount.

Student Choices/Differentiation

Students make the choice to attempt the extensions if they feel it's safe.

What to Look For

Students are making smart, safe decisions by analyzing their own skill levels and determining what is safe to practice and what is not.

Instructional Task: Sprinting

■ PRACTICE TASK

Demonstrate and discuss sprinting.

Guiding questions for students:

- What is a sprint?
- Why is a sprint needed?
- When do you sprint?

In pairs, students practice their sprinting in a controlled environment. One student performs while the other observes.

In groups of three, students compete in races of 40 yards or meters. Students practice using the sprint technique to get a good jump off the start line.

Refinements

- Use a higher gear for a stronger, faster sprint.
- Make sure students push down hard on the pedal to gain momentum.

Extension

In groups of two, students practice using the sprint technique to pass each other on a hill.

Student Choices/Differentiation

- Students choose their partners.
- Have stronger riders challenge themselves by starting a bike length behind their opponents.
- Allow students to add people to their group to increase the difficulty of the sprint.
- If students cannot climb hills, they can continue to practice the sprint on flat land.

What to Look For

- Students are using their maximum power to pedal. The pedal stroke should be a pushing down motion as opposed to a perfect circle. Hips should be driven forward toward the handlebars, and the spine should be straight up.
 - Students are keeping safety in mind at all times, but especially while riding near or past other bikers.
 - When racing, students are cheering each other on, avoiding put-downs, and congratulating each other when the race is over, regardless of the result.
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Formal and Informal Assessments

- Peer assessment: peer checklist for previously learned skills and combining skills
- Exit slip: What skills can you, personally, combine in mountain biking?

Closure

- What skills did you practice during your skill session?
- What should your body position look like while descending a hill? While climbing a hill?
- What does it mean to sprint on a bike?
- What skills are easy to combine?

Reflection

- Are students improving toward proficiency in skills such as turning, braking, shifting gears, and attack position?
- Can all students climb and descend hills? Identify students who need modifications.
- Do students understand the concept of sprinting?
- Can students safely combine skills?

Homework

- You must accumulate 40-plus minutes of riding before the week is out. This can be done at home or at recess. You are encouraged to do more than 40 minutes. Please select one skill (e.g., descending a hill, shifting gears) that you have learned in class; practice that one skill during your riding sessions.
- Be ready to report about your training sessions. What skill did you focus on? What went well? What didn't?

Resources

Lopes, B., & McCormack, L. (2010). *Mastering mountain bike skills*. 2nd ed. Champaign, IL: Human Kinetics.