



Introduction to Winter Sports: Cross-country Ski Curriculum Outline

Presented by
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Acknowledgements

Many of the teaching progressions and learning activities included in this instructional unit have come from various New England Bill Koch Youth Ski League instructors, coaches, and athletes.

Curriculum Format

This cross-country ski instructional unit was designed similarly to the Snowshoe Curriculum outline, authored by Dr. G. Linda Rikard, Ed.D. (George Mason University), and Dr. Mary Marks, Ph.D. (Fairfax County Public Schools).

Curriculum Outline

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Winter Feels Good: Cross-country Skiing for Grades K-12

Section I: Introduction

Cross-country skiing addresses the standards for learning and instruction established by the National Association for Sport and Physical Education (NASPE). The NASPE Standards are listed below.

A physically educated person:

- Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.
- Standard 2: Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities.
- Standard 3: Participates regularly in physical activity.
- Standard 4: Achieves and maintains a health-enhancing level of physical fitness
- Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings.
- Standard 6: Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction

Health related physical fitness principles and activities are included in every lesson. In addition, a brief review of muscles involved and the rationale for the activity choice is also provided. Students should be encouraged to set

appropriate goals regarding technique, time, distance and grade for learning and participating in this activity in and out of school.

The use of pedometers and heart rate monitors is encouraged in lessons for student goal-setting and accountability (as developmentally appropriate). It is important that students have prior instruction and experience with these devices before implementing their use in this unit.

The instructional sequence is designed to provide learning activities for classic cross-country ski technique. Most in-school cross-country ski equipment designated for use in physical education settings includes classic (waxless) skis, boots, and poles. If you would like to teach skate techniques, many of the learning activities for classic skiing may be used. It is important, however, that students have skate equipment. Using classic skis to skate will provide very little glide, thus may not be a positive learning experience for students.

Unit Goals and Relationship to NASPE Standards

1. Students will discuss the benefits of participating cross-country skiing as a lifelong physical activity, and as a contributing factor to increases in various components of health related fitness (i.e. cardiovascular endurance, flexibility, muscular endurance, and body composition).

NASPE Standards:

2, 6

2. Students will perform basic and advanced cross-country ski skills and apply them in a variety of activities.

NASPE Standards:

1, 3, 4

Students will apply safety rules and concepts as they relate to participating in cross-country skiing.

NASPE Standards:

2, 5

3. Students will choose appropriate equipment and clothing for cross-country skiing.

NASPE Standard:

2

4. Students will keep a physical education journal as a means of tracking their daily physical activity levels and thoughts related to a variety of activities including cross-country skiing in physical education.

NASPE Standards:
3, 4, 6

5. Students will demonstrate enjoyment of outdoor winter physical activity by enthusiastic participation in cross-country ski activities.

NASPE Standard:
6

6. Students will demonstrate appropriate social skills by following all rules related to trail etiquette.

NASPE Standards:
2, 5

7. Students will work cooperatively in pairs and small groups without undue teacher intervention.

NASPE Standard:
5

8. Students will demonstrate helping behavior by assisting classmates with equipment or skill performance as appropriate.

NASPE Standard:
5

Section II: Cross-country Skiing Sample Lesson Outlines

Each of the following sample lessons can be tailored to meet the needs of your students. They are intended to provide ideas for formulating your own lesson plans and units of instruction.

Pre-unit logistics and planning: Distribute cross-country skiing information sheet to students and parents.

Instructional Notes:

It is not necessary to introduce the use of ski poles to novices. They will develop better balance and ski technique without them.

Most activities that are done in other physical education classes can be done on skis. These activities may include: low organized games (i.e. various tag games,

Capture the Flag, etc.), sports games (i.e. soccer, Ultimate Frisbee, etc.), and dance (i.e. Chicken Dance, Hokey Pokey, etc.). It is important that all students experience success during each class.

Cross-country skiing: Grades K-3, 30-60 minutes

Day 1

Equipment

- Cross-country skis for each student
- Ski boots for each student
- Indoor carpet or large (40' x 40') carpeted gymnastics tumbling mat
- Music

Introduction to Unit

- Brief History (historical overview of how this activity has evolved into a winter recreational activity)
- Expectations (ease of learning skills necessary to participate in the sport at a recreational level, lifetime sport, enhances many components of health related fitness)
- Safety (Balance, spatial awareness)
- Identify equipment and how to fit: ski length, boots, bindings
- Demonstrate how to attach boot to binding

Choosing Equipment and "Gearing-up"

- Outfit each child with skis and boots (no ski poles)

Skills

- Putting on boots and skis
- Walking Technique
- Falling Down and Getting up
- Gliding Technique (run and glide)
- Maintaining Balance
- Travel to open spaces
- Walk/run and glide with good balance at own pace

Warm-up and Core Activities

- "Hokey Pokey"
- "Chicken Dance"
- Flexibility: calf / Achilles Stretch, lunges
- "Fishy, Fishy Cross My Ocean" tag game

Assessment

- Teacher observation/feedback of skills
- Students discuss how to select their own equipment
- Students list safety rules
- Teacher checklist for basic skills

Day 2

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Rubber chickens or extra ski hats (1/3 as many chickens / hats as students)
- Music (CD / Tape player, with extra batteries, on a milk crate)
- Snow covered outdoor space (flat)

Introduction to Class

- Safety (Balance, spatial awareness)
- Review equipment and how to fit: ski length, boots, bindings
- Demonstrate how to attach boot to binding
- Fitness Knowledge (increased heart rate): Notice how warm you feel when skiing. Why do you feel warm when you are outside in the cold?

Skills

- Putting on boots and skis
- Walking Technique
- Gliding Technique (run and glide)
- Maintaining Balance
- Travel to open spaces
- Walk/run and glide with good balance at own pace
- Stopping Technique (snow plow)

Warm-up

- "Hokey Pokey" (as children go outdoors)
- "Fishy, Fishy Cross My Ocean" tag game
- Flexibility: calf / Achilles Stretch, lunges, arm across chest stretch

Core Activities

- Run and Glide
- Demonstration and explanation, and skill practice of snow plow (flat surface)
- "Red Light, Green Light"
- "Chicken Tag"

Assessment

- Teacher observation/feedback of skills
- Students discuss how to select their own equipment
- Students list safety rules
- Students discuss reason for their body being warm when they are outside in the cold.
- Teacher checklist for basic skills
- Students help others with equipment as needed

Day 3

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Rubber chickens or extra ski hats (1/3 as many chickens / hats as students)
- Music (CD / Tape player, with extra batteries, on a milk crate)
- Snow covered outdoor space (flat and small hill)
- Optional: one Frisbee per child, and several tennis balls

Introduction to Class

- Safety (Balance, spatial awareness)
- Trail Etiquette: Downhill skiers always have the “right-of-way,” ski on the right side of the trail when possible
- Fitness Knowledge (cardiovascular fitness): Relationship between cross-country skiing and having a healthy heart

Skills

- Putting on boots and skis
- Diagonal Stride: kick and glide
- Maintaining Balance
- Travel to open spaces
- Walk/run and glide with good balance at own pace
- Stopping Technique (snow plow)
- Uphill and downhill techniques

Warm-up

- “Hokey Pokey” or “Chicken Dance” (as children go outdoors)
- Chicken or Hat tag game
- Flexibility: calf / Achilles Stretch, lunges, arm across chest stretch

Core Activities

- Run and Glide transition to “kick” and glide
- Review snow plow (flat surface)
- “Red Light, Green Light”
- Uphill Techniques: side step, herringbone (caterpillar up the hill)
- Downhill Technique: snowplow (slide and drive; may drive with a Frisbee as the steering wheel, or place tennis balls on top of the Frisbee)
- Challenge activity: partner downhill skiing

Assessment

- Teacher observation/feedback of skills
- Students discuss trail etiquette
- Students discuss how cross-country skiing relates to having a healthy heart
- Students list safety rules
- Teacher checklist for basic skills
- Students help others with equipment as needed
- In pairs, have students peer assess and provide cues and positive feedback as appropriate

Day 4

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Non-white colored, soccer-type ball
- 8-16 small cones, pinnies (if necessary for team identification)
- Music (CD / Tape player, with extra batteries, on a milk crate)
- Snow covered outdoor space (flat and small hill)

Introduction to Class

- Safety (Balance, spatial awareness)
- Trail Etiquette Review: Downhill skiers always have the “right-of-way,” ski on the right side of the trail when possible
- Fitness Knowledge: The importance of having a healthy heart; activities that contribute to cardiovascular fitness

Skills

- Putting on boots and skis
- Classic Technique (kick and glide) with good balance at own pace
- Maintaining Balance
- Travel to open spaces
- Stopping Technique (snow plow)
- Uphill and downhill techniques
- Snow Plow Turn

Warm-up

- “Everybody Dance Now,” or other dance that children know (as they go outdoors)
- Tunnel Tag
- Flexibility: calf / Achilles stretch, lunges, arm across chest

Core Activities

- Classic Technique (“kick” and glide)
- Downhill Technique: snowplow (slide and drive; may drive with a Frisbee as the steering wheel, or place tennis balls on top of the Frisbee)
- Uphill Techniques: herringbone (caterpillar up the hill)
- “Red Light, Green Light” on a hill
- Challenge activity: partner, and groups of 3 or more downhill skiing
- Small-sided soccer games (4 v. 4)

Assessment

- Teacher observation/feedback of skills
- Students discuss trail etiquette
- Students discuss why having a healthy heart is important, and how activities such as cross-country skiing can help one’s heart stay healthy
- Students list safety rules
- Teacher checklist for basic skills
- Students help others with equipment as needed
- In pairs, have students peer assess and provide cues and positive feedback as appropriate

Cross-country skiing: Grades 4-6, 45-60 minutes

The following sample lessons are similar to those for students in grades K-3. Teachers are encouraged to plan learning activities to meet the students' needs and developmental levels.

Day 1

Equipment

- Cross-country skis for each student
- Ski boots for each student
- Indoor carpet or large (40' x 40') carpeted gymnastics tumbling mat
- Music

Introduction to Unit

- Brief History (historical overview of how this activity has evolved into a winter recreational activity)
- Expectations (ease of learning skills necessary to participate in the sport at a recreational level, lifetime sport, enhances many components of health related fitness)
- Safety (Balance, spatial awareness)
- Identify equipment and how to fit: ski length, boots, bindings
- Demonstrate how to attach boot to binding
- Fitness Knowledge: Cardiovascular Fitness

Choosing Equipment and "Gearing-up"

- Outfit each child with skis and boots (no ski poles)

Skills

- Putting on boots and skis
- Walking Technique
- Falling Down and Getting up
- Gliding Technique (run and glide)
- Maintaining Balance
- Travel to open spaces
- Walk/run and glide with good balance at own pace

Warm-up and Core Activities

- "Hokey Pokey"
- "Chicken Dance"
- Flexibility: calf / Achilles stretch, lunges
- "Fishy, Fishy Cross My Ocean" tag game

Assessment

- Teacher observation/feedback of skills
- Students discuss how to select their own equipment
- Students list safety rules
- Discussion of how participating in cross-country skiing can enhance one's cardiovascular fitness
- Teacher checklist for basic skills
- Students help others with equipment as needed

Day 2

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Rubber chickens or extra ski hats (1/3 as many chickens / hats as students)
- Music (CD / Tape player, with extra batteries, on a milk crate)
- Snow covered outdoor space (flat)
- P.E. Journal

Introduction to Class

- Safety (Balance, spatial awareness)
- Review equipment and how to fit: ski length, boots, bindings
- Demonstrate how to attach boot to binding
- Fitness Knowledge: The importance of cardiovascular fitness, flexibility

Skills

- Putting on boots and skis
- Walking Technique
- Gliding Technique (run and glide)
- Maintaining Balance
- Travel to open spaces
- Walk/run and glide with good balance at own pace
- Stopping Technique (snow plow)

Warm-up

- "Hokey Pokey" (as children go outdoors)
- "Fishy, Fishy Cross My Ocean" tag game
- Flexibility: calf / Achilles Stretch, lunges, arm across chest stretch (Discuss: "Why is stretching important?")

Core Activities

- Run and Glide
- Demonstration and explanation, and skill practice of snow plow (flat surface)
- “Red Light, Green Light”
- “Chicken Tag”

Assessment

- Teacher observation/feedback of skills
- Students discuss how to select their own equipment
- Students list safety rules
- Students discuss the importance of cardiovascular fitness and flexibility
- Teacher checklist for basic skills
- Students help others with equipment as needed
- In pairs, have students peer assess and provide cues and positive feedback as appropriate
- P.E. Journal Entry

Day 3

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Music (CD / Tape player, with extra batteries, on a milk crate)
- Snow covered outdoor space (flat and small hill)
- Optional: one Frisbee per child, and several tennis balls
- P.E. Journal

Introduction to Class

- Safety (Balance, spatial awareness)
- Trail Etiquette: Downhill skiers always have the “right-of-way,” ski on the right side of the trail when possible
- Fitness Knowledge (muscular strength and endurance, “muscle fitness”): Relationship between cross-country skiing and muscle fitness

Skills

- Putting on boots and skis
- Diagonal Stride: kick and glide
- Maintaining Balance
- Travel to open spaces
- Walk/run and glide with good balance at own pace
- Stopping Technique (snow plow)
- Uphill and downhill techniques

Warm-up

- “Everybody Dance Now” (or other dance that the children know)
- Tunnel Tag
- Flexibility: calf / Achilles Stretch, lunges, arm across chest stretch
- Fitness: “Be thinking about which muscles we are using as we cross-country ski today.”

Core Activities

- Run and Glide transition to “kick” and glide
- Review snow plow (flat surface)
- “Red Light, Green Light”
- Uphill Techniques: side step, herringbone (caterpillar up the hill)
- Downhill Technique: snowplow (slide and drive; may drive with a Frisbee as the steering wheel, or place tennis balls on top of the Frisbee)
- Challenge activity: partner downhill skiing, downhill skiing on one ski only

Assessment

- Teacher observation/feedback of skills
- Students discuss trail etiquette
- Students discuss muscles used when cross-country skiing
- Students list safety rules
- Teacher checklist for basic skills
- Students help others with equipment and skills as needed
- In pairs, have students peer assess and provide cues and positive feedback as appropriate
- P.E. Journal Entry

Day 4

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Non-white colored, soccer-type ball
- 8-16 small cones, pinnies (if necessary for team identification)
- Music (CD / Tape player, with extra batteries, on a milk crate)
- Snow covered outdoor space (flat and small hill)
- P.E. Journal

Introduction to Class

- Safety (Balance, spatial awareness)
- Trail Etiquette Review: Downhill skiers always have the “right-of-way,” ski on the right side of the trail when possible
- Fitness Knowledge: Benefits of physical activity, especially cross-country skiing; Places to cross-country ski outside of class

Skills

- Putting on boots and skis
- Classic Technique (kick and glide) with good balance at own pace
- Maintaining Balance
- Travel to open spaces
- Stopping Technique (snow plow)
- Uphill and downhill techniques
- Snow Plow Turn
- Step-turn (as developmentally appropriate)

Warm-up

- “Electric Slide” or other dance that children know (as they go outdoors)
- Tunnel Tag
- Blob Tag
- Flexibility: calf / Achilles stretch, lunges, arm across chest

Core Activities

- Classic Technique (“kick” and glide)
- Uphill and Downhill Techniques “Red Light, Green Light” on a hill
- Snow plow and/ or step turns: Figure Eight Obstacle Course
- Small-sided soccer games (4 v. 4)

Assessment

- Teacher observation/feedback of skills
- Students discuss trail etiquette
- Students discuss the benefits of physical activity, especially participating in cross-country skiing, and where they might ski outside of class
- Students list safety rules
- Teacher checklist for basic skills
- Students self-referee game play without undue teacher intervention
- Students help others with equipment and skills as needed
- P.E. Journal Entry

Day 5

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Pair of classic ski poles for each student
- Various “hidden treasures” and clue cards
- Snow covered outdoor space (flat and small hill)
- 1 pedometer for each student
- P.E. Journal

Instructional Note: Students should have had prior instruction and experience with the use of pedometers.

Introduction to Class

- Safety (Balance, spatial awareness)
- Choosing the proper size ski poles, and wearing them properly
- Application of Fitness Knowledge: Set goals for number of steps taken in class activities today, and compare to other P.E. class activities

Skills

- Classic Technique (diagonal stride, and double pole) with good balance at own pace
- Maintaining Balance
- Travel to open spaces
- Stopping Technique (snow plow)
- Uphill and downhill techniques
- Snow Plow Turn
- Step-turn (as developmentally appropriate)
- Using ski poles for propulsion (double pole, and diagonal stride)

Warm-up

- Everybody's It (tag game)
- Blob Tag
- Flexibility: calf / Achilles stretch, lunges, arm across chest

Core Activities

- Classic Technique (using poles): Double Pole, and diagonal stride
- Treasure Hunt (give students clues to find various hidden "treasures")

Assessment

- Teacher observation/feedback of skills
- Students discuss various places that they could cross-country ski outside of class
- Students list safety rules
- Teacher checklist for basic skills
- Students help others with equipment and skills as needed
- In pairs, have students peer assess and provide cues and positive feedback as appropriate
- Students work in pairs to achieve a common goal (find the "treasures")
- Students discuss number of steps taken today, and how this compares to other P.E. class activities; Did you meet your goal? If not, what could you have done to take more steps? Why is this important?
- P.E. Journal Entry

Cross-country skiing: Grades 7-12, 45-80 minutes

The following sample lessons are similar to those for students in grades 4-6. Teachers are encouraged to plan learning activities to meet the students' needs and developmental levels.

Day 1

Equipment

- Cross-country skis for each student
- Ski boots for each student
- Indoor carpet or large (40' x 40') carpeted gymnastics tumbling mat
- Music

Introduction to Unit

- Brief History (historical overview of how this activity has evolved into a winter recreational activity)
- Expectations (ease of learning skills necessary to participate in the sport at a recreational level, lifetime sport, enhances many components of health related fitness)
- Safety (Balance, spatial awareness)
- Identify equipment and how to fit: ski length, boots, bindings
- Demonstrate how to attach boot to binding
- Fitness Knowledge: Cardiovascular Fitness

Choosing Equipment and "Gearing-up"

- Outfit each child with skis and boots (no ski poles)

Skills

- Putting on boots and skis
- Walking Technique
- Falling Down and Getting up
- Gliding Technique (run and glide)
- Maintaining Balance
- Travel to open spaces
- Walk/run and glide with good balance at own pace

Warm-up and Core Activities

- "Chicken Dance"
- Flexibility: calf / Achilles stretch, lunges
- "Fishy, Fishy Cross My Ocean" tag game

Assessment

- Teacher observation/feedback of skills
- Students discuss how to select their own equipment
- Students list safety rules
- Discussion of how participating in cross-country skiing can enhance one's cardiovascular fitness
- Teacher checklist for basic skills
- Students help others with equipment as needed

Day 2

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Rubber Chickens or extra ski hats (1/3 as many chickens / hats as students)
- Music (CD / Tape player, with extra batteries, on a milk crate)
- Snow covered outdoor space (flat)
- P.E. Journal

Introduction to Class

- Safety (Balance, spatial awareness)
- Review equipment and how to fit: ski length, boots, bindings
- Demonstrate how to attach boot to binding
- Fitness Knowledge: The importance of cardiovascular fitness, flexibility

Skills

- Putting on boots and skis
- Walking Technique
- Gliding Technique (run and glide)
- Maintaining Balance
- Travel to open spaces
- Walk/run and glide with good balance at own pace
- Stopping Technique (snow plow)

Warm-up

- "Chicken Dance" (as children go outdoors)
- "Fishy, Fishy Cross My Ocean" tag game
- Flexibility: calf / Achilles Stretch, lunges, arm across chest stretch (Discuss: "Why is stretching important?")

Core Activities

- Run and Glide
- Demonstration and explanation, and skill practice of snow plow (flat surface)
- “Red Light, Green Light”
- “Chicken Tag”
- “Blob Tag”

Assessment

- Teacher observation/feedback of skills
- Students discuss how to select their own equipment
- Students list safety rules
- Students discuss the importance of cardiovascular fitness and flexibility
- Teacher checklist for basic skills
- Students help others with equipment as needed
- In pairs, have students peer assess and provide cues and positive feedback as appropriate
- P.E. Journal Entry

Day 3

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- 1/3 as many rubber chickens (or additional ski hats) as students
- Music (CD / Tape player, with extra batteries, on a milk crate)
- Snow covered outdoor space (flat and small hill)
- Optional: one Frisbee per child, and several tennis balls
- P.E. Journal

Introduction to Class

- Safety (Balance, spatial awareness)
- Trail Etiquette: Downhill skiers always have the “right-of-way,” ski on the right side of the trail when possible
- Fitness Knowledge (muscular strength and endurance, “muscle fitness”): Relationship between cross-country skiing and muscle fitness

Skills

- Putting on boots and skis
- Diagonal Stride: kick and glide
- Maintaining Balance
- Travel to open spaces
- Walk/run and glide with good balance at own pace
- Stopping Technique (snow plow)
- Uphill and downhill techniques

Warm-up

- “Everybody Dance Now” (or other dance that the children know)
- Tunnel Tag
- Flexibility: calf / Achilles Stretch, lunges, arm across chest stretch
- Fitness: “Be thinking about which muscles we are using as we cross-country ski today.”

Core Activities

- Run and Glide transition to “kick” and glide
- Review snow plow (flat surface)
- Uphill Techniques: side step, herringbone (caterpillar up the hill)
- Downhill Technique: snowplow (slide and drive; may drive with a Frisbee as the steering wheel, or place tennis balls on top of the Frisbee)
- Challenge activity: partner downhill skiing, downhill skiing on one ski only
- “Chicken Tag” on slight hill

Assessment

- Teacher observation/feedback of skills
- Students discuss trail etiquette
- Students discuss muscles used when cross-country skiing
- Students list safety rules
- Teacher checklist for basic skills
- Students help others with equipment and skills as needed
- In pairs, have students peer assess and provide cues and positive feedback as appropriate
- P.E. Journal Entry

Day 4

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Non-white colored, soccer-type ball
- 8-16 small cones, pinnies (if necessary for team identification)
- Music (CD / Tape player, with extra batteries, on a milk crate)
- Snow covered outdoor space (flat and small hill)
- P.E. Journal

Introduction to Class

- Safety (Balance, spatial awareness)
- Trail Etiquette Review: Downhill skiers always have the “right-of-way,” ski on the right side of the trail when possible
- Fitness Knowledge: Benefits of physical activity, especially cross-country skiing

Skills

- Putting on boots and skis
- Classic Technique (kick and glide) with good balance at own pace
- Maintaining Balance
- Travel to open spaces
- Stopping Technique (snow plow)
- Uphill and downhill techniques
- Snow Plow Turn
- Step-turn (as developmentally appropriate)

Warm-up

- “Electric Slide” or other dance that children know (as they go outdoors)
- Tunnel Tag
- Blob Tag
- Flexibility: calf / Achilles stretch, lunges, arm across chest

Core Activities

- Classic Technique (“kick” and glide)
- Uphill and Downhill Techniques “Red Light, Green Light” on a hill
- Snow plow and/ or step turns: Figure Eight Obstacle Course
- Small-sided soccer games (4 v. 4)

Assessment

- Teacher observation/feedback of skills
- Students discuss trail etiquette
- Students discuss the benefits of physical activity, especially participating in cross-country skiing
- Students list safety rules
- Teacher checklist for basic skills
- Students self-referee game play without undue teacher intervention
- Students help others with equipment and skills as needed
- P.E. Journal Entry

Day 5

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Pair of classic ski poles for each student
- Various “hidden treasures” and clue cards
- Snow covered outdoor space (flat and small hill)
- P.E. Journal

Introduction to Class

- Safety (Balance, spatial awareness)
- Choosing the proper size ski poles, and wearing them properly
- Application of Fitness Knowledge: Places to cross-country ski outside of class

Skills

- Classic Technique (diagonal stride, and double pole) with good balance at own pace
- Maintaining Balance
- Travel to open spaces
- Stopping Technique (snow plow)
- Uphill and downhill techniques
- Snow Plow Turn
- Step-turn (as developmentally appropriate)
- Using ski poles for propulsion (double pole, and diagonal stride)

Warm-up

- Everybody's It (tag game)
- Blob Tag
- Flexibility: calf / Achilles stretch, lunges, arm across chest

Core Activities

- Classic Technique (using poles): Double Pole, and diagonal stride
- Treasure Hunt (give students clues to find various hidden “treasures”)

Assessment

- Teacher observation/feedback of skills
- Students discuss various places to cross-country ski outside of class
- Students list safety rules
- Teacher checklist for basic skills
- Students help others with equipment and skills as needed
- In pairs, have students peer assess and provide cues and positive feedback as appropriate
- Students work in pairs to achieve a common goal (find the “treasures”)
- P.E. Journal Entry

Day 6

Equipment & Setting

- Cross-country skis for each student
- Ski boots for each student
- Pair of classic ski poles for each student
- Snow covered outdoor space (flat and small hill)
- 1 Frisbee for every 2 students
- 8-16 small cones, pinnies (if necessary for team identification)
- 16-22 small cones
- 1 heart rate monitor / transmitter for each student
- P.E. Journal

Note: Students should have had instruction and experiences with heart rate monitors prior to using them in this unit.

Introduction to Class

- Safety (Balance, spatial awareness)
- Choosing the proper size ski poles, and wearing them properly
- Wearing and using heart rate monitors properly
- Application of Fitness Knowledge: exercising in your “aerobic zone”

Skills

- Classic Technique (diagonal stride, and double pole) with good balance at own pace
- Maintaining Balance
- Travel to open spaces
- Stopping Technique (snow plow)
- Uphill and downhill techniques
- Snow Plow Turn
- Step-turn (as developmentally appropriate)
- Using ski poles for propulsion (double pole, and diagonal stride, kick double pole)

Warm-up

- Everybody's It (tag game)
- Flexibility: calf / Achilles stretch, lunges, arm across chest

Core Activities

- Frisbee throw and catch
- Ultimate Frisbee
- Classic Technique (using poles): Double pole, kick double pole, and diagonal stride
- 10-15 minute “ski tour”

Assessment

- Teacher observation/feedback of skills
- Students discuss the differences in heart rate when performing the various class activities, and how that relates to training in their aerobic zone
- Students list safety rules
- Teacher checklist for basic skills
- Students help others with equipment and skills as needed
- In pairs, have students peer assess and provide cues and positive feedback as appropriate
- Students self-referee game play without undue teacher intervention
- P.E. Journal Entry

Day 7

Extension / Application Activity: At the end of the unit, if possible, provide students the opportunity to visit a cross-country ski area. During this visit, the focus would be primarily on touring, skiing in groomed tracks, and observing trail etiquette. The use of pedometers and heart rate monitors is encouraged.

Section III: Safety

Safety Guidelines:

Be sure that the outdoor instructional environment is free of natural and structural obstacles (i.e. streams, bleachers, stonewalls, paved areas, etc.).

Avoid instructional areas that have ice or crusted snow that may cause injury to students.

Observe students for signs of frostbite and hypothermia.

All students should wear clothing that is appropriate for the activity (see below).

Section IV: Proper Dress

- Students should dress in layers. WEARING COTTON FABRICS (i.e. cotton turtle necks, blue jeans) SHOULD BE AVOIDED! Cotton fabrics, when wet, stay wet for a very long time, and draw heat from a person's body.
- All students should wear a hat!
- Mittens tend to keep hands much warmer than gloves. Most students should be encouraged to wear mittens.
- Ideally a synthetic or silk moisture-wicking layer should be first, and worn next to the skin.
- Next, should be an insulating layer (i.e. fleece or wool).
- Finally, a wind barrier should be worn. This could be any type of wind-resistant fabric. Ideally this fabric should be breathable (it prevents wind and moisture from entering, but allows perspiration to escape).
- On their feet, students should be encouraged to wear a light synthetic liner sock, upon which a wool or fleece sock should be worn. NO COTTON SOCKS!
- Wearing sunscreen, and chap stick is encouraged.

Please note: If students do not have access to synthetic clothing for proper layer, it is important that they bring at least one change of clothes to school. They will enjoy cross-country skiing only if they are comfortable, and that means not being wet and cold during class, as well as throughout the remainder of their school day.

Section V: Resources

New England Nordic Ski Association (NENSA), Bill Koch Youth Ski League Manual (2004).

www.nensa.net

American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD)

www.aahperd.org