



# INSTRUCTOR GUIDE

## LESSON 1: INTRODUCTION TO BOWHUNTER ED

V.2/2018

### Bowhunter Education 2017 Standards – Section 1 Objectives 1, 2, 4, & 5

#### Instructor Notes



This lesson introduces the students to the importance and goals of bowhunter education as well as funding for conservation. This lesson corresponds with Chapters 1 & 2 (pgs. 6-15) in the Today's Bowhunter student manual. Teach this lesson first to the entire class.

#### **Teaching Methods Used In This Lesson**

- **Lecture**
- **Discussion**

This lesson includes the use of a PowerPoint show (See Addendum A). Review the PowerPoint ahead of time and familiarize yourself with the functionality of the presentation. Certain slides present all information at once, while others reveal pieces of information at a time. This is intended to allow the students to see topics or questions while still hiding the additional information from view. This allows the instructor to use questioning techniques throughout the lecture.

#### Time Suggested



30 Minutes

**Materials  
Required**



- Audio visual equipment (projector & screen)
- Laptop w/ PowerPoint software
- PowerPoint file: Lesson 1 – Introduction to Bowhunter Ed
- See Addendum B for tips on creating a low-tech lesson if you do not have access to PowerPoint

**Station  
Set-up**



10 minutes

1. Set up projector, screen, and laptop and open the PowerPoint slideshow.
2. This opens the show to the first slide. This is the title slide that should be displayed as students arrive to the course.

**Vocabulary  
Builder**



Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.

**Association of Fish & Wildlife Agencies (AFWA)** – The professional association that serves as the collective voice of North America’s state, provincial, and territorial fish and wildlife agencies.

**Federal Aid in Wildlife Restoration Act of 1937 (AKA: Pittman-Robertson Act)** – A legislative act that took an 11% excise tax on firearms and ammunition and returned the funds to the states for wildlife conservation and recreation. A tax on handguns (1970) and archery equipment (1972) was added and states were authorized to spend up to one half of this addition on Hunter Education.

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**Hunter Education** – International program developed to create safe, knowledgeable, responsible, and involved hunters to prevent hunting incidents and ensure the future of the hunting tradition.

**International Hunter Education Association** – A professional hunter education association affiliated with AFWA and the 50 state hunter education programs.

**North American Model of Wildlife Conservation** – A set of principles that has guided wildlife management and conservation decisions in the United States, Canada, and Mexico.

## LESSON PLAN

### **PART A:**

#### **Focus Activity**



1 minute

Note: This lesson uses PowerPoint extensively as a teaching aid. The PowerPoint begins with a course introduction. The lead instructor will welcome the students and introduce the course, cover housekeeping issues, introduce what is involved, and the course requirements. All instructors should introduce themselves to the students at this time. Lesson 1 immediately follows the course introduction at PowerPoint slide #9, and that is where this lesson plan begins. This “click” icon (  ) is shown when the instructor should advance the PowerPoint. It is vital that you practice with the PowerPoint ahead of time so that you are familiar with the program and know how/when to navigate it properly. See Addendum A for a layout of the slides.

Slide #9 – The purpose of the focus activity is to get everyone focused on the lesson. Ask: “How many of you have ever bow hunted before?”

### **PART B:**

#### **Objectives**



1 minute

 Slide #10 – State the learning objectives to the students.

“At the end of this lesson, you will be able to:

- identify the purpose and importance of bowhunter education;
- identify the differences in hunting with a bow from hunting with a firearm;
- describe how license fees and excise taxes support wildlife conservation;
- and describe central principles of the North American Model of Wildlife Conservation.”

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**PART C:**

**Teaching  
Method**



25 minutes

Say: “Let’s take a few minutes and talk about the importance of bowhunter education.”

1. 🖱️ Slide #11 – Discuss why bowhunter education is important:
    - Decreases hunting incidents
    - Promotes responsible hunter behavior
    - Helps identify necessary equipment
  2. 🖱️ Slide #12 – Discuss the purpose of the bowhunter education program:
    - Train safe, responsible, and law abiding bowhunters
  3. 🖱️ Slide #13 – Discuss the differences of hunting with a bow from hunting with a firearm:
    - Source of power is from the bending of limbs, and rotation of cams on the compound bow, rather than from gunpowder
    - Bow hunters must typically get closer to game
    - Bow hunting relies on cutting and bleeding to produce humane kills, rather than shock
  4. 🖱️ Slide #14 – Discuss each of the funding sources one by one and take the time to explain how each source directly, or indirectly, funds wildlife conservation:
    - State wildlife agencies
    - US Fish & Wildlife Service
  5. 🖱️ Slide #15 - Explain how the Pittman Robertson Act supports wildlife conservation.
  6. 🖱️ Slide #16 – Continue with more funding sources:
    - International Hunter Education Association
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- Non-governmental associations
- Sportsmen's and civics clubs
- Local businesses

7. 🖱️ Slide #17 – Transition into this slide by instructing the students that the way wildlife is managed in North America is quite unique and different from European countries. Explain how conservation efforts in North America rely on the wise sustainable use of the resource and that hunters and hunting play a crucial role in these efforts. State how the North American Model of Wildlife Conservation breaks down North America's conservation efforts into seven main principles, and discuss how each one is directly affected by hunting.

- Wildlife as a public trust resource
  - wildlife is owned by no one and everyone at the same time; wildlife management is entrusted to state and federal wildlife agencies by the public
- Elimination of markets for game
  - with a few exceptions, the killing and selling of animals has been eliminated; in the 1800's, many species were over harvested, leading to the demise of some populations
- Allocation of wildlife by law
  - States allocate surplus wildlife by law not by market pressure, land ownership or special privilege. The public has a say in the management of wildlife
- Kill only for legitimate purposes
  - animals are only allowed to be killed if there is a legitimate reason for its killing (i.e. food, fur, prevent property damage)
- Wildlife as an international resource
  - wildlife do not respect political boundaries; many bird species are migratory and therefore this model

requires the cooperation among adjacent countries (i.e. US, Mexico, Canada)

- Science-based wildlife policy
  - decisions on the policies of wildlife management are based on scientific evidence
- Democracy of hunting
  - In other countries, wildlife is allocated by land ownership or privilege. In North American anyone in good standing can participate.

Students are not being tested at this stage; they are gaining new knowledge. Your role as the instructor is that of a facilitator/coach to help the students learn the material. The instructor should lead the students through the PowerPoint, and lead the discussion, yet allow the students to try and come up with the information themselves.

**PART D:**

**Student Summary**



3 minutes

👉 Slide #18 – Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.

- What is the goal of the bowhunter education program?
- What does the Pittman Robertson Act accomplish?
- What makes the North American Model of Wildlife Conservation so unique?

**END OF LESSON**



## POWERPOINT SLIDES FOR LESSON ONE

### Chapter 1

#### Introduction to Bowhunter Education

#9 - 

#### Objectives

At the end of this lesson, you will be able to:

- identify the purpose and importance of bowhunter education;
- identify the differences in hunting with a bow from hunting with a firearm;
- describe the central principles of the North American Model of Wildlife Conservation;
- and describe how license fees and excise taxes support wildlife conservation.

#10 - 

#### Course Importance

Bowhunter Education is important because it:

- decreases hunting incidents;
- promotes responsible bowhunter behavior to ensure the future of the tradition;
- and helps identify necessary equipment.

#11 - 

## Course Purpose

The purpose of bowhunter education is to produce hunters that are ....

*safe, responsible, and law abiding.*

#12 - MASSWILDLIFE

### Bowhunting vs. Gun Hunting

- Bowhunters must typically get closer to game
- Source of power is from limbs and cams rather than gunpowder
- Bowhunting relies on the use of an arrow for killing

#13 - MASSWILDLIFE

### Conservation Funding

- State/Provincial Wildlife Agencies
  - Sportsmen and Sportswomen pay for conservation
- U.S. Fish and Wildlife Service



Federal Aid in Wildlife Restoration Act – 1937  
“Pittman-Robertson”

#14 - MASSWILDLIFE

### Cycle of Success for Wildlife and Sport Fish Restoration Programs



#15 - MASSWILDLIFE

### Conservation Funding cont...

- International Hunter Education Association
- Other Non-governmental Organizations (NGOs)
  - Some promote shooting sports
  - Some work for species/habitat conservation
- Local Sportsmen's and Civic Clubs
- Local Businesses

#16 - 

### N.A. Model of Wildlife Conservation

The Seven Pillars:

- Wildlife as a Public Trust Resource
- Elimination of Markets for Game
- Allocation of Wildlife by Law
- Kill only for legitimate purposes
- Wildlife as an International Resource
- Science-based Wildlife Policy
- Democracy of Hunting

#17 - 

### Questions?

- What is the purpose of the bowhunter education program?
- What does the Pittman Robertson Act accomplish?
- What makes the North American Model of Wildlife Conservation so unique?

#18 - 

#### Addendum

**B**



### TIPS FOR CONDUCTING LESSON 1 WITHOUT POWERPOINT

In some instances instructors may not have access to a laptop with PowerPoint software. In this case, the instructor should

	<p>present the same information in the same order, yet use other visual aids for the students.</p> <p>Other visual aids could include:</p> <ol style="list-style-type: none"> <li>1. Writing key points on a whiteboard/easel</li> <li>2. Presenting a chart showing the process of the Pittman-Robertson Act</li> <li>3. Presenting a chart stating the seven principles of the NAMWC</li> </ol>
<p><b><u>Addendum</u></b> <b><u>C</u></b></p> <p></p>	<p><b>FREQUENTLY ASKED QUESTIONS</b></p> <ol style="list-style-type: none"> <li>1. Why is hunter education international? <i>So that hunter safety can be standardized rather than region specific</i></li> <li>2. Is archery tackle taxed like firearms and ammunition? <i>Yes, in 1972 a tax on archery tackle was added to PR funds</i></li> </ol>





# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

V. 2/2018

Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

### **Bowhunting Deer in Zone 10 during the Primitive Arms Season**

**Permits & or Stamps:** \_\_\_\_\_

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**Hunting Season Dates & Hours:** \_\_\_\_\_

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**Hunter Orange:** \_\_\_\_\_

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**Bowhunting Implements and Other Methods:** \_\_\_\_\_

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**Bag Limits/Other Restrictions on Taking:**

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**Tagging, Transportation, and Reporting requirements:**

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# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

V. 2/2018

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Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

### **Bowhunting Wild Turkey in the spring in Zone 3**

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**Permits & or Stamps:** \_\_\_\_\_

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**Hunting Season Dates & Hours:** \_\_\_\_\_

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**Hunter Orange:** \_\_\_\_\_

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**Bowhunting Implements and Other Methods:** \_\_\_\_\_

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**Bag Limits/Other Restrictions on Taking:**

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**Tagging, Transportation, and Reporting requirements:**

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# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

V. 2/2018

Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

### **Bowhunting Black Bear during the Shotgun Deer Season**

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**Permits & or Stamps:** \_\_\_\_\_

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**Hunting Season Dates & Hours:** \_\_\_\_\_

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**Hunter Orange:** \_\_\_\_\_

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**Bowhunting Implements and Other Methods:** \_\_\_\_\_

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**Bag Limits/Other Restrictions on Taking:**

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**Tagging, Transportation, and Reporting requirements:**

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# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

V. 2/2018

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Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

### **Bowhunting Deer in October within 500' of a dwelling in use**

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**Permits & or Stamps:** \_\_\_\_\_

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**Landowner Permissions/Authorizations:** \_\_\_\_\_

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**Hunting Season Dates & Hours:** \_\_\_\_\_

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**Hunter Orange:** \_\_\_\_\_

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**Bowhunting Implements and Other Methods:** \_\_\_\_\_

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**Bag Limits/Other Restrictions on Taking:**

\_\_\_\_\_

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**Tagging, Transportation, and Reporting requirements:**

\_\_\_\_\_

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# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

V. 2/2018

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Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

### **Bowhunting Deer during Shotgun season from a Treestand**

**Permits & or Stamps:** \_\_\_\_\_

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**Permissions/Authorizations to use a treestand:** \_\_\_\_\_

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**Hunting Season Dates & Hours:** \_\_\_\_\_

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**Hunter Orange:** \_\_\_\_\_

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**Bowhunting Implements and Other Methods:** \_\_\_\_\_

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**Bag Limits/Other Restrictions on Taking:**

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**Tagging, Transportation, and Reporting requirements:**

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# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

V. 2/2018

Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

### **Bowhunting Turkey during the Fall Season on a Wildlife Management Area**

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**Permits & or Stamps:** \_\_\_\_\_

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**Hunting Season Dates & Hours:** \_\_\_\_\_

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**Hunter Orange:** \_\_\_\_\_

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**Bowhunting Implements and Other Methods:** \_\_\_\_\_

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**Bag Limits/Other Restrictions on Taking:**

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**Tagging, Transportation, and Reporting requirements:**

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# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

### INSTRUCTOR'S ANSWER SHEET

V. 2/2018

Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

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#### **Bowhunting Deer in Zone 10 during the Primitive Arms Season**

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**Permits & or Stamps:** Primitive Firearms Stamp required. Antlerless permit needed to take antlerless deer.

**Hunting Season Dates & Hours:** Check abstracts annually; Season begins on the Monday following the close of Shotgun Deer Season, ends on the last day of the year; hunting hours are ½ hour before sunrise to ½ hour after sunset.

**Hunter Orange:** Must conspicuously wear on head, chest, and back a minimum of 500 square inches of “blaze orange” clothing. (A cap and vest will suffice)

**Bowhunting Implements and Other Methods:** Bows must have a draw weight of at least 40 lbs. at 28 inches or at peak draw; Arrows must have well-sharpened steel broadhead blades with at least 7/8” cutting diameter. Poisoned arrows, explosive tips, and bows drawn by mechanical means **are prohibited**. Crossbows may be used by certain permanently disabled persons by permit only. Also cannot possess any firearm except a primitive firearm.

**Bag Limits/Other Restrictions on Taking:** Annual limit for antlered deer is two; Annual limit for antlerless deer is limited by the number of permits obtained; Daily possession of unreported deer is two (except for zones 13 & 14 where it is four). No dogs, baiting, decoys, or electronic calls allowed.

**Tagging, Transportation, and Reporting requirements:** Each hunting license has two antlered “deer tags”; each antlerless permit has one “antlerless tag”. Upon killing a deer the hunter must immediately fill out and attach the “deer tag” in a conspicuous manner. Within 48 hours the person who killed the deer must report it online or present the entire carcass to an official game check station. Until reported, deer must remain visible during transport.



# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

### INSTRUCTOR'S ANSWER SHEET

V. 2/2018

Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

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#### **Bowhunting Wild Turkey in the spring in Zone 3**

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**Permit &/or Stamp requirements:** Turkey hunting permit is required. Official green safety sticker must be adhered to a firearm but not archery equipment in such a manner as to be visible when hunter is sighting down the barrel.

**Hunting Season and Hours:** Check Abstracts annually; Four week season begins on the last Monday in April; hunting hours are from ½ hour before sunrise to 12:00 noon.

**Hunter Orange requirement:** None required, but recommended when entering and exiting the woods.

**Bowhunting Implements and Other Methods:** Bows must have a draw weight of at least 40 lbs. at 28 inches or at peak draw; Arrows must have well-sharpened steel broadhead blades with at least 7/8" cutting diameter. Poisoned arrows, explosive tips, and bows drawn by mechanical means **are prohibited**. Crossbows may be used by certain permanently disabled persons by permit only.

**Bag Limits/Other Restrictions on Taking:** Annual limit and possession limit is two birds; spring season limit is two bearded birds (only one bird/day); or if one bearded bird is taken in the spring then one of either sex can be taken in the fall. Use of electronic calls, bait, dogs, and driving turkeys is prohibited.

**Tagging, Transportation, and reporting requirements:** Two tags provided with permit. Upon killing a turkey, the hunter must immediately fill out and attach the "tag" in a conspicuous manner. Within 48 hours the person who killed the turkey must report it online or present the entire carcass to an official check station. No transporting requirements.



# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

### INSTRUCTOR'S ANSWER SHEET

V. 2/2018

Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

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#### **Bowhunting Black Bear during the Shotgun Deer Season**

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**Permit &/or Stamp requirements:** Black bear hunting permit is required

**Hunting Season Dates & Hours:** Check abstracts annually; 12 Day season begins on the Monday after Thanksgiving and ends on the second Saturday thereafter; hunting hours are ½ hour before sunrise to ½ hour after sunset.

**Hunter Orange:** Must conspicuously wear a minimum of 500 square inches of “blaze orange” clothing on head, chest, and back.

**Bowhunting Implements and Other Methods:** Bows must have a draw weight of at least 40 lbs. at 28 inches or at peak draw; Arrows must have well-sharpened steel broadhead blades with at least 7/8” cutting diameter. Poisoned arrows, explosive tips, and bows drawn by mechanical means **are prohibited**. Crossbows may be used by certain permanently disabled persons by permit only.

**Bag Limits/Other Restrictions on Taking:** Annual limit is one black bear per calendar year, of any sex, age, or size. Baiting and use of dogs is prohibited.

**Transportation & Reporting: Tagging, Transportation, and reporting requirements:** A “bear tag” is attached to each permit. Upon killing a bear the hunter must immediately fill out and attach the “tag” in a conspicuous manner. Within 48 hours, the person who killed the bear must report it online or present the entire carcass to an official check station. Bear must remain visible during transport until reported.



# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

### INSTRUCTOR'S ANSWER SHEET

V. 2/2018

Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

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#### **Bowhunting Deer in October within 500' of a dwelling in use**

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**Permits & or Stamps:** Archery Stamp required. Antlerless permit needed to take antlerless deer.

**Landowner Permissions/Authorizations:** Need authorization by owner or occupant thereof to release an arrow from a bow within 500' of a dwelling in use.

**Hunting Season and Hours:** Check abstracts annually; Six week season begins on the sixth Monday prior to Thanksgiving, and continues through the Saturday following Thanksgiving. Hunting hours are ½ hour before sunrise to ½ hour after sunset, except on WMA's stocked with pheasant/quail during the pheasant/quail season when hunting hours are sunrise to sunset.

**Hunter Orange requirement:** None, except on WMA's stocked with pheasant/quail during the pheasant/quail season where an orange hat or cap is required.

**Bowhunting Implements and Other Methods:** Bows must have a draw weight of at least 40 lbs. at 28 inches or at peak draw; Arrows must have well-sharpened steel broadhead blades with at least 7/8" cutting diameter. Poisoned arrows, explosive tips, and bows drawn by mechanical means **are prohibited**. Crossbows may be used by certain permanently disabled persons by permit only. Also a person shall not use/ have in his possession a rifle, a shotgun, or a firearm of any kind.

**Bag Limits/Other Restrictions on Taking:** Annual limit for antlered deer is two; Annual limit for antlerless deer is limited by the number of permits obtained; Daily possession of unreported deer is two (except for zones 13 & 14 where it's 4). No dogs, baiting, decoys, or electronic calls allowed.

**Tagging, Transportation, and Reporting requirements:** Each license has two antlered "deer tags"; each antlerless permit has one "antlerless tag". Upon killing a deer the hunter must immediately fill out and attach the "deer tag" in a conspicuous manner. Within 48 hours the person who killed the deer must report it online or present the entire carcass to an official game check station. Until reported, deer must remain visible during transport.



# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

### INSTRUCTOR'S ANSWER SHEET

V. 2/2018

Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

#### **Bowhunting Deer during Shotgun season from a Treestand**

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**Permit &/or Stamp requirements:** Antlerless permit needed to take antlerless deer.

**Permissions/Authorizations to use a treestand:** Written permission of the landowner is required on private or public lands to fasten a hunting platform or structure to a tree by nails, bolts, wire, or other that go through the bark into the wood or to emplace a platform that is fastened or erected in any manor for a period exceeding 30 days.

**Hunting Season Dates & Hours:** Check abstracts annually; 12 Day season begins on the Monday after Thanksgiving and ends on the second Saturday thereafter; hunting hours are ½ hour before sunrise to ½ hour after sunset.

**Hunter Orange:** Must conspicuously wear on head, chest, and back a minimum of 500 square inches of “blaze orange” clothing. (A cap and vest will suffice)

**Bowhunting Implements and Other Methods:** Bows must have a draw weight of at least 40 lbs. at 28 inches or at peak draw; Arrows must have well-sharpened steel broadhead blades with at least 7/8” cutting diameter. Poisoned arrows, explosive tips, and bows drawn by mechanical means **are prohibited**. Crossbows may be used by certain permanently disabled persons by permit only. Also a person shall not hunt with or have in possession a rifle, revolver or pistol.

**Bag Limits/Other Restrictions on Taking:** Annual limit for antlered deer is two; Annual limit for antlerless deer is limited by the number of permits obtained; Daily possession of unreported deer is two (except for zones 13 & 14 where it's 4). No dogs, baiting, decoys, or electronic calls allowed. Also a person shall not hunt with or have in possession a rifle, revolver or pistol.

**Tagging, Transportation, and Reporting requirements:** Each hunting license has two antlered “deer tags”; each antlerless permit has one “antlerless tag”. Upon killing a deer the hunter must immediately fill out and attach the “deer tag” in a conspicuous manner. Within 48 hours the person who killed the deer must report it online or present the entire carcass to an official game check station. Until reported, deer must remain visible during transport.



# LESSON 2 HUNTING LAWS AND REGULATIONS

## STUDENT EXERCISE WORKSHEETS

### INSTRUCTOR'S ANSWER SHEET

V. 2/2018

Use the Massachusetts Guide to Hunting, Freshwater Fishing, and Trapping Laws as a reference to find the pertinent information for the fields below:

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#### **Bowhunting Turkey during the Fall Season on a Wildlife Management Area**

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**Permit &/or Stamp requirements:** Turkey hunting permit is required. Official green safety sticker must be adhered to a firearm but not archery equipment in such a manner as to be visible when hunter is sighting down the barrel.

**Hunting Season Dates & Hours:** Hunting hours begin ½ hour before sunrise and end ½ hour after sunset. Except on WMAs stocked with pheasant or quail during the pheasant or quail season, hunting hours are sunrise to sunset.

**Hunter Orange:** Not required, except on WMA's stocked with pheasant/quail during the pheasant/quail season where an orange hat or cap is required.

**Bowhunting Implements and Other Methods:** Bows must have a draw weight of at least 40 lbs. at 28 inches or at peak draw; Arrows must have well-sharpened steel broadhead blades with at least 7/8" cutting diameter. Poisoned arrows, explosive tips, and bows drawn by mechanical means **are prohibited**. Crossbows may be used by certain permanently disabled persons by permit only

**Bag Limit & Other Restrictions** Annual limit is two birds; During the fall season, the bag limit and possession limit is one bird of either sex, provided, that two turkeys were not taken during the spring season.

**Tagging, Transportation, & Reporting:** Two tags provided with permit. Upon killing a turkey, the hunter must immediately fill out and attach the "tag" in a conspicuous manner. Within 48 hours the person who killed the turkey must report it online or present the entire carcass to an official check station. No transporting requirements.



# INSTRUCTOR GUIDE

## LESSON 2: RESPONSIBILITIES OF A BOWHUNTER

V.2/2018

### Bowhunter Education 2017 Standards – Section 5 Objectives 22, 23, 24 & 25

#### Instructor Notes



This lesson introduces the students to the responsibilities of a bowhunter and bowhunting laws and regulations. This lesson corresponds with Chapter 3 (pgs. 22-27) in the student manual. Teach this lesson to the entire class.

#### **Teaching Methods Used In This Lesson**

- **Lecture**
- **Discussion**
- **Small group work**

This lesson includes the use of a PowerPoint show (Addendum A). Review the PowerPoint ahead of time and familiarize yourself with the functionality of the presentation. Certain slides present all information at once, while others reveal pieces of information at a time. This is intended to allow the students to see topics or questions while still hiding the additional information from view. This allows the instructor to use questioning techniques throughout the lecture.

#### Time Suggested



75 Minutes

**Materials  
Required**



- Audio Visual equipment (projector and screen)
- Laptop w/ PowerPoint software
- PowerPoint file: Lesson 2 – Responsibilities of a Bowhunter
- A sample of Hunter orange clothing (i.e. vest or hat)
- One copy of the current *Massachusetts Fish and Wildlife Guide To Hunting, Freshwater Fishing, and Trapping* and one copy of the *Migratory Game Bird Regulations* for each student (included in course materials)
- One set of Lesson 2 Student Worksheets (included in course materials)

**Station  
Set-up**



15 minutes

1. Set up projector, screen, and laptop and open the PowerPoint presentation to the title slide (Slide #1).
2. Stage the printed student materials for this lesson at the instructor's desk/podium. Do not distribute until the student exercise portion of the lesson begins.
3. Station the white board/easel near the front of the room.

**Vocabulary**  
**Builder**



Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.

**Blaze orange** – “Hunter Orange” is the fluorescent orange color which, when worn by hunters, has helped decrease the number of hunting incidents.

**Conservation** – The wise sustainable use of resources.

**Fair chase** – Ethical pursuit and taking of animals that does not give the hunter an unfair advantage over game.

**Legal means** – Legal firearms or bows (i.e. hunting implements) used in the taking of game.

**Legal methods** – Approved hunting practices as allowed by statute or regulation (e.g. game calls, decoys, driving deer).

**Ordinance** – A statute enacted by the legislative department of a city or county government.

**Poaching** – Taking game out of season, shooting more than the limit allows, or taking game before or after shooting hours. Poaching is illegal.

**Privileges** – Extra benefits given to a person or group that meets certain conditions. A privilege can be taken away if conditions are not met.

**Regulations** – Laws or rules by which conduct is regulated.

**Rights** – Powers to which a person has a just claim. Unlike a

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privilege, a right cannot be taken away from you.

**Statutes** – A law passed by a legislative body and appears in a formal document.

**Trespassing** – Going onto posted private property without the owner's permission. Trespassing is illegal.

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## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p>Note: This lesson begins with PowerPoint. This “click” icon (  ) is shown when the instructor should advance the PowerPoint. It is vital that you practice with the PowerPoint ahead of time so that you are familiar with the program and know how/when to navigate it properly. See Addendum A for a layout of the slides.</p> </div> <p> Slide #2 – The purpose of the focus activity is to get everyone focused on the lesson. Ask: “Who can tell me the difference between a right and a privilege?”  Follow up this question with: “Is hunting a right or a privilege?”</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p> Slide #3 – State the learning objectives to the students. “At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"> <li>• explain why hunting laws and regulations are enacted;</li> <li>• list official resources that contain bowhunting rules/regulations including federal, state/provincial, and county/local information/access;</li> <li>• know where/how to find agency and landowner rules that apply to bowhunting in addition to regulations;</li> <li>• and explain why developing responsible bow hunting behavior is important for every hunter and the future of bowhunting.</li> </ul>
<p><b><u>PART C:</u></b></p> <p><b><u>Teaching Method</u></b></p>	<p>1.  Slide #4 - Say: “because hunting is a privilege, the way hunters are perceived is very important to the future of hunting. If someone were to describe you as a hunter, what terms would you hope they use?” Give the students time to</p>



15 minutes

give you some answers. 🖐️ Then reveal the common terms found on the PowerPoint.

2. 🖐️ Slide #5 – Tell the students that one word in particular is significant. Ask the question: “responsible to whom or what?” Give the students time to give you some answers. 🖐️ Then reveal the answers on the PowerPoint.
  - Themselves
  - Other hunters
  - Non-hunters
  - Landowners
  - Natural resources
3. At this point the instructor should take a minute to quickly summarize the key points of hunter ethics:
  - The sportsman’s code
  - Fair chase
4. Say: “while fair chase emphasizes self-restraint and the development of personal skills, some standards of fair chase are defined by law. Next we will focus on the legal aspects of bowhunting.”

Note: At this point in the lesson the instructor should allow an EPO (if present) to deliver the remainder of the lesson.

5. 🖐️ Slide #6 – Ask: “what is the legal definition of the verb ‘to hunt’ ”?
  - Explain to the students “hunting has a much broader legal definition than you may realize” e.g. helping with a deer drive, calling turkeys for another

- 
6. 🖱️ Slide #7 – Read the definition of the term, as found in the MA General Laws, Chapter 131, Section 1. “The verb ‘to hunt’, in all of its moods and tenses, includes pursuing, shooting, killing and capturing mammals and birds and all lesser acts such as disturbing, harrying or worrying, or placing, setting, drawing or using any device commonly used to take mammals and birds, whether or not such acts result in taking; and includes every attempt to take and every act of assistance to any other person in taking or attempting to take mammals and birds.”
7. 🖱️ Slide #8 – Say: “there are four main reasons why hunting laws exist. Can anyone name one?” Use questioning techniques to draw the correct answers from the students. Ask the students to give examples of specific laws for each of the four reasons and offer some examples if they cannot.
- 🖱️ Protect people (public safety)
    - no discharge of a firearm within 500 feet of an occupied dwelling or building in use
    - mandatory Hunter Education
    - hunter orange
  - Protect wildlife (conservation of resources)
    - bag limits
  - Fair distribution (opportunity and fair share)
    - season limits
    - possession limits
  - Fair chase
    - restricting use of artificial lights at night to kill deer
8. 🖱️ Slide #9 – Have the students try to come up with the three primary sources for laws. Explain the differences between the different levels and ask the students to give examples of laws from each source.
- 🖱️ Federal laws and regulations.
    - Examples: Lacey Act of 1900, Weeks-McLean Act of
-

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1913, Migratory Bird Treaty Act of 1918, Migratory Bird Hunting Stamp Act of 1934.

- State laws and regulations.
  - Example: State agency regulations define Hunting seasons, hunting hours and bag limits of deer and turkey.
- Municipal/Local laws, ordinances, and regulations.
  - Example: Local ordinances can be more restrictive than other laws and regulations such as prohibiting the discharge of a firearm or requiring written permission of the landowner or the town.

9. 🖱️ Slide #10 – Say: “Now that we know the reasons and sources for laws governing hunting, the next step is to know where and how to find them.”

10. Pass out copies of the Massachusetts Fish & Wildlife Guide to Hunting, Freshwater Fishing, and Trapping and copies of the Migratory Bird Regulations pamphlet.

11. Ask students to turn to the table of contents (page 1) of the Guide and familiarize themselves with the contents. Explain the importance of the guide and point out these important sections:

- Page 1 - New for “year”
- Page 6 - Environmental Police offices and 800 number
- Page 8 - Licenses
- Page 22 - General regulations
  - stress the archery and treestand sections
- Page 23 - WMA regulations
- Page 24 - Wildlife Management Zones
- Page 28 - Time table
- Page 29 - General prohibitions
- Page 31-42 - Species specific regulations

**PART D:**

**Student  
Exercise**



30 minutes

12. 🖱️ Slide #11 – Break the class into 7 small groups. There are seven different hunting scenario worksheets provided with the course materials. Pass out a different worksheet to each group.
13. Tell the groups: “using your hunting laws and regulations Guide, find the specific information for each blank listed on the worksheet as it pertains to the hunting scenario listed on the sheet.” Give the students 10 minutes to complete the exercise.
14. Working right down the list on the PowerPoint, have each group present their information to the class as time allows. As the students report certain facts, ask them to relate the information back to one of the four reasons for hunting laws. Use questioning techniques to maximize responses. When discussing the term “hunter orange”, emphasize its importance (*allows an individual to be more easily seen and identified as a human; prevents shooting related hunting incidents*).

Students are not being tested at this stage; they are gaining new knowledge. Your role as the instructor is that of a facilitator/coach to help the students learn the material. Do not be negative to students who miss information on the worksheets. Help them find the information and discuss the importance of being thorough when reading the regulations.

**PART E:**

**Student  
Summary**



3 minutes

👉 Slide #12 - Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.

- What is the difference between a right and a privilege?
- What are the four reasons we have hunting laws?
- What are the three sources of hunting laws?

**END OF LESSON**

**Additional  
Instructor  
Notes**



1. If available it may be helpful to display different styles of hunter orange (e.g. vest style vs. jacket style).
2. If you have an example of faded hunter orange clothing that is no longer serviceable, it may be a good display item to show why periodic replacement is necessary.

Addendum

A



**POWERPOINT SLIDES FOR LESSON FOUR**



Bowhunting Ethics, Laws, & Regulations

#1 -

**Hunting Laws & Regulations**

- What is a right? What is a privilege?
  
- Is bowhunting a right or a privilege?

#2 -

MASSWILDLIFE

**Objectives**

At the end of this lesson, you will be able to...

- explain why hunting laws and regulations are enacted;
- list official resources that contain bow hunting rules/regulations including federal, state/provincial, and county/local information/access;
- know where/how to find agency and landowner rules that apply to bowhunting in addition to regulations;
- and explain why developing responsible bowhunting behavior is important for every hunter and the future of bowhunting.

#3 -

MASSWILDLIFE

If someone were to describe you as a hunter, what terms would you hope they use?

Safe  
Ethical  
Successful  
Fair  
Lawful  
Confident  
Responsible

#4 -

MASSWILDLIFE

Responsible to Whom or What?

Themselves  
Other Hunters  
Non-Hunters  
Landowners  
Natural Resources

#5 -

MASSWILDLIFE

What is the MA legal definition of the verb 'to hunt'?

#6 -

MASSWILDLIFE

## “To Hunt...”

### M.G.L. c131, S. 1

“The verb ‘to hunt’, in all of its moods and tenses, includes pursuing, shooting, killing, and capturing mammals and birds and all lesser acts such as disturbing, harrying or worrying, or placing, setting, drawing or using any device commonly used to take mammals and birds, whether or not such acts result in taking; and includes every attempt to take and every act of assistance to any other person in taking or attempting to take mammals and birds.”

#7 -

MASSWILDLIFE

## “Why do hunting laws exist?”

There are four reasons...

- Protect people
- Protect wildlife
- Fair distribution
- Fair chase



#8 -

MASSWILDLIFE

## “Where do they come from?”

There are 3 sources of hunting laws...

- Federal
- State
- Municipal



#9 -

MASSWILDLIFE

## “How do you find these laws?”



#10 -

MASSWILDLIFE

### Group exercise

1. Bowhunting deer in zone 10 during the primitive arms season
2. Bowhunting deer in October within 500' of a dwelling
3. Bowhunting deer from a permanently built tree stand
4. Bowhunting black bear during the Shotgun Deer Season
5. Bowhunting turkey in the spring in Zone 3
6. Bowhunting turkey with a crossbow during the spring season
7. Bowhunting turkey during the fall season on a Wildlife Management Area

#11 -

MASSWILDLIFE

### Summary

- What is the difference between a right and a privilege?
- What are the 4 reasons we have hunting laws?
- What are the 3 sources of hunting laws?

MASSWILDLIFE

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**Addendum**

**B**



**FREQUENTLY ASKED QUESTIONS**

You may receive a number of questions regarding the legality of different issues. Answer these questions to the best of your ability, but admit it if you do not know the answer. Find out the answer to the question before the next class and inform them then.

1. Why is the pheasant season limited to only two birds per day? *The reason for this law is fair distribution. Pheasants are a “put and take” resource, and by limiting the daily bag limit to two birds, it ensures that everyone will have an opportunity.*
2. Can a bowhunter carry a handgun for personal protection while bowhunting?





# INSTRUCTOR GUIDE

## LESSON 3: INTRODUCTION TO BOWHUNTING EQUIPMENT

V.2/2018

### Bowhunter Education 2017 Standards – Sections 2, 3, & 6 Objectives 6, 7, 9, 10, 11, & 27

#### Instructor Notes



This lesson introduces the students to bowhunting equipment. This lesson corresponds with Chapter 4 (pgs. 28-35) of the Today's Bowhunter student manual. Teach this lesson to the entire class.

#### **Teaching Methods Used In This Lesson**

- **Lecture**
- **Discussion**

This lesson includes the use of a PowerPoint slideshow (See Addendum A). Review the PowerPoint ahead of time and familiarize yourself with the functionality of the presentation. Certain slides present all information at once, while others reveal pieces of information at a time. This is intended to allow the students to see topics or questions while still hiding the additional information from view. This allows the instructor to use questioning techniques throughout the lecture.

#### Time Suggested



50 Minutes

**Materials  
Required**



- Audio visual equipment (projector & screen)
- Compound bow
- Crossbow
- Laptop with PowerPoint software
- Long bow
- PowerPoint file: Lesson 3 - Introduction to Bowhunting Equipment
- Recurve bow

**Station  
Set-up**



10 minutes

1. Set up projector, screen, and laptop and open the PowerPoint show.
2. This opens the show to Slide #1 – the Title slide should be displayed.
3. Place the bows on a table near the front of the room.

Note: While discussing the different bows, it would be beneficial to hold up to the class the different styles.

**Vocabulary**  
**Builder**



Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.

**Arm guard** – A wrap around an archers bow arm that prevents the bowstring from slapping the archer’s arm.

**Arrow fletching** – A feather or plastic vane glued onto the rear of the arrow shaft that causes the arrow to spin and stabilize the arrow in flight.

**Arrow shaft** – The body of the arrow, typically made with wood, fiberglass, aluminum, or carbon fiber.

**Blunt tip** – A tip of an arrow with a flat end used for shooting small game.

**Bolt** – A crossbow arrow consisting of a head, shaft, fletch, and nock.

**Bowstring** – The string of the bow which is pulled to engage the limbs and released to propel the arrow.

**Bow stringer** – A string used to flex the limbs of a traditional bow so that the bowstring can be put on the bow.

**Broadhead** – A tip of an arrow with razor sharp blades used for big game.

**Cable** – The strings of a compound bow or crossbow which link the cams.

**Cable guard** – A rod that extends back from the riser of a

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compound bow that holds the cables out of the path of the arrow.

**Cam** – The mechanical wheel at the end of a compound bow's (or crossbows) limb.

**Compound Bow** – A bow with one or two cams mounted on the end of the limbs that allow faster speeds, greater energy, and let-off.

**Crossbow** – A bow with the limbs mounted horizontally on a shouldered stock and is fired like a firearm.

**Dry-fire** – Pulling a bowstring back and releasing it without having an arrow in the bow.

**Expandable broad head** – see Mechanical broad head.

**Finger tab/glove** – A piece of fabric used to shield the archer's fingers from the bowstring to allow a smooth release of the bowstring.

**Fixed-blade broad head** – A broad head typically used for big game with at least two permanent blades.

**Fletching** – Feathers or plastic vanes around the nock end of the arrow shaft that helps stabilize the flight of the arrow.

**Flu-flu** – An arrow with large fletching's to produce increased drag to limit the distance the arrow will fly. Generally used for aerial shooting.

**Helical** – Fletching's are glued on in a slight spiral pattern around the shaft.

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**Horizontal bow** – A bow that is held horizontally while shooting (e.g. crossbow).

**Judo point** – A tip of an arrow used for shooting small game that consists of a blunt end with wires sticking out to the side.

**Kisser button** – A small piece of plastic that fits around the bowstring slightly above the nocking point that is placed at the corner of the shooter's mouth upon drawing the bow back.

**Let-off** – A percentage that the draw-weight is reduced upon reaching full draw.

**Long bow** – A bow resembling a stick and string.

**Mechanical broad head** – A broad head typically used for big game with at least two blades that open upon impact with the target.

**Mechanical release aid** – A trigger device an archer uses instead of their fingers to draw and release the bowstring.

**Nock** – A slot in the end of an arrow that fits on the string.

**Nocking point** – The location on a bowstring where the arrow is connected.

**Peep sight** – A small piece of plastic or metal that is inserted into the bowstring above the nock to serve as a rear sight window.

**Quiver** – A container that may or may not be attached to the bow that stores the arrows and can cover broad heads securely.

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**Recurve bow** – A bow resembling a stick and string with the limbs curved away from the archer.

**Removable-blade broad head** – A broad head typically used for big game with at least two replaceable blades.

**Riser** – The stiff frame of a bow that the limbs extend from.

**Serving** – A small diameter string that is wound tightly around the bowstring, typically where the arrow is nocked and where the bowstring meets the cams.

**Target point / Bullet point / Field tip** – A tip of an arrow used for shooting practice targets.

**Traditional Bow** – A longbow or recurve bow.

**Vertical bow** – A bow that is held vertically when shooting (e.g. compound, longbow, recurve).

## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<p>Note: This lesson uses PowerPoint extensively as a teaching aid. This “click” icon (  ) is shown when the instructor should advance the PowerPoint. It is vital that you practice with the PowerPoint ahead of time so that you are familiar with the program and know how/when to navigate it properly. See Addendum A for a layout of the slides.</p> <p>Slide #1 - The purpose of the focus activity is to get everyone’s attention focused on the lesson. Ask, “how many of you already own a bow?”</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p> Slide #2 - State the learning objective to the students. “At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"><li>• identify common types of bows, components, and characteristics of each type;</li><li>• identify and describe components of a finished arrow, uses of each component, and types of arrow points used in shooting/hunting;</li><li>• describe the benefits of stated accessories;</li><li>• list the common types of bowhunting injuries and how to prevent them;</li><li>• describe how to properly inspect bows and arrows and use a quiver and a broad head wrench for safety;</li><li>• And list the proper broad head/game point for game hunted.”</li></ul>

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**PART C:**

**Teaching  
Method**



46 minutes

1. 🖱️ Slide #3 – Introduce the types of bows
  - Longbow
  - Recurve bow
  - Compound bow
  - Crossbow
  
2. 🖱️ Slide #4 - Discuss the main characteristics of traditional bows (i.e. longbow and recurve), and highlight their differences:
  - Held vertically
  - Stick and string
  - the farther it is pulled, the heavier the draw
  - Typically shot with fingers
  - A recurve bow's limbs create more energy and force than an equivalent poundage long bow
  
3. 🖱️ Slide #5 - Discuss the main characteristics of the Compound bow:
  - Held vertically
  - Has cams and cables
  - Has let-off
  - Typically shot with a mechanical release aid
  
4. 🖱️ Slide #6 - Discuss the main characteristics of the Crossbow:
  - Held horizontally
  - May or may not have cams and cables
  - Sighted and fired like a firearm
  
5. 🖱️ Slide #7 – Describe the primary parts of vertical bows:
  - Grip
  - Riser
  - Limb
  - String

- 
- Nocking location
  - Sight
  - Rest
  - Silencers

6. 🖱️ Slide #8 – Describe the parts specific to compound bows:

- Cam
- Cable
- Stabilizer
- Wrist Loop
- Peep Sight
- D-loop

7. 🖱️ Slide #9 – Describe the parts specific to crossbows:

- Cocking mechanism
- Sight
- Safety
- Trigger
- Stock and rail
- Foot stirrup

8. 🖱️ Slide #10 – Transition into arrows by stating “No matter what type of bow is used, what truly makes it a bow is that the projectile it sends down range is an arrow or bolt.”

Identify the components of a finished arrow/bolt:

- Shaft
- Nock
- Fletching
- Tip

9. 🖱️ Slide #11 – Describe the types of shafts:

- Wood
- Fiberglass
- Aluminum

- Carbon fiber
- Aluminum/carbon fiber

10. 🖱️ Slide #12 – Describe styles of nocks:

- Notched wood
- Glue on
- Insert
- Crossbow specific

11. 🖱️ Slide #13 – Describe the types and styles of fletching:

- Feathers
- Vanes
- Straight fletch
- Helical fletch
- Flu-flu

Note: When introducing the bowfishing spear tip below, do not go into depth on the process of bowfishing. In Massachusetts (and many other states) bowfishing requires a fishing license. Inform students that if they wish to get into bowfishing, they will need to look into it further.

12. 🖱️ Slide #14 – Describe different tips, when each style is used, and what game would be hunted (if any) with each:

- Target points
  - field vs. bullet
- Small game head
  - judo point
  - blunt tip
  - bowfishing spear tip
- Broadhead
  - fixed-blade
  - removable-blade
  - mechanical

Note: Now is a good time to discuss the pros and cons of each broad head style and stress the importance of practicing with the chosen broad head to ensure the arrows still hit their mark.

13. Discuss the importance of razor sharp broad heads and how to prevent cuts to themselves and equipment
  - Use a quiver
  - Use a broad head wrench
14. 🖱️ Slide #15 – Describe the benefits of other accessories and when and how to use them properly:
  - Mechanical release-aid
  - Finger tab/glove
  - Arm guard
  - Bow stringer
  - Quiver
15. 🖱️ Slide #16 – Discuss the importance of inspecting equipment before and after each time shooting. Cover the following:
  - Cracks in bow limbs
  - Loose screws/bolts on the bow
  - Frayed strings
  - Dry-rotted peep tubing
  - Cracked or splintered arrows
  - Loose/damaged fletching's
  - Wax the bowstring
  - Rail lube on crossbow

**PART E:**

**Student  
Summary**



2 minutes

👉 Slide #17 - Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.

- What are the four types of bows?
- What are the four components of a finished arrow?
- What is the difference between a fixed-blade broad head and a mechanical broad head?
- What accessory do archers use to prevent the bowstring from slapping their arm/clothing?

**END OF LESSON**

**Additional  
Instructor  
Notes**



During this lesson, it is very easy to go into excessive detail about things like draw weight, draw length, and arrow spine. Remember that these topics will be covered in lesson 6.

Addendum

A



**POWERPOINT SLIDES**



Introduction to Bowhunting Equipment

#1 -

**Objectives**

At the end of this lesson, you will be able to:

- identify common types of bows, components, and characteristics of each type;
- identify and describe components of a finished arrow, uses of each component, and types of arrow points used in shooting/hunting;
- describe the benefits of stated accessories;
- list the common types of bowhunting injuries and how to prevent them;
- describe how to properly inspect bows and arrows and use a quiver and a broadhead wrench for safety;
- and list the proper broadhead/game point for game hunted.

#2 -



**Bows**

- Traditional bows
  - Longbow
  - Recurve bow
- Compound bow
- Crossbow



#3 -



### Traditional Bows



Longbow



Recurve

#4 -

MASSWILDLIFE

### Compound Bows



#5 -

MASSWILDLIFE

### Crossbows



#6 -

MASSWILDLIFE

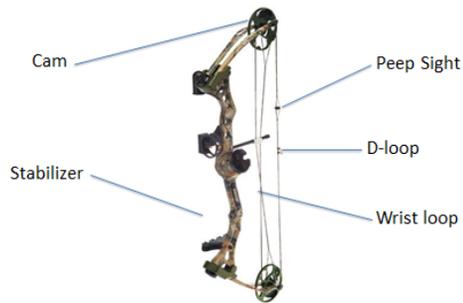
### Parts of Vertical Bows



#7 -

MASSWILDLIFE

### Parts of Compound Bows



#8 -

MASSWILDLIFE

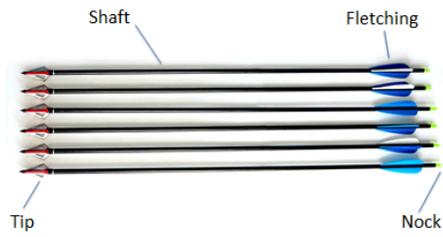
### Parts of Crossbows



#9 -

MASSWILDLIFE

## Arrows



#10 -

MASSWILDLIFE

## Arrow Shafts

- Wood
- Fiberglass
- Aluminum
- Carbon
- Carbon/Aluminum combo



#11 -

MASSWILDLIFE

## Arrow Nocks



Glue on



Insert



Crossbow



#12 -

MASSWILDLIFE

## Arrow Fletching

Feathers



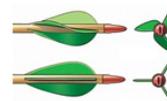
Vanes



Flu-flu



Straight vs. Helical



#13 -

MASSWILDLIFE

## Arrow Tips

Target Points



Field

Bullet

Small Game Heads



Judo

Blunt/Bludgeon

Bowfishing

Broadheads



Fixed Blade



Replaceable Blade



Mechanical/Expandable

#14 -

MASSWILDLIFE

## Accessories



Mechanical Release-aid



Finger Tab/Glove



Arm Guard



Bow Stringer



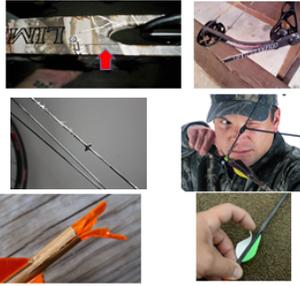
Quiver

#15 -

MASSWILDLIFE

## Inspect Equipment

- Cracked bow limbs
- Loose screws
- Frayed strings
- Dry-rotted peep tube
- Cracked arrows/nocks
- Damaged fletchings



#16 -

MASSWILDLIFE

## Summary

- What are the four types of bows?
- What are the four components of a finished arrow?
- What is the difference between a fixed-blade broadhead and a mechanical broadhead?
- What accessory do archers use to prevent the bowstring from slapping their arm?

#17 -

MASSWILDLIFE

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**Addendum**

**B**



**FREQUENTLY ASKED QUESTIONS**

1. What type of broad head is best?  
*The answer to this question really is based on personal preference. Be careful not to push certain brands when answering. Each type of broad head (or small game head) has its pros and cons. Draw on your experience to discuss these pros and cons.*
  
2. What brand of bow is best?  
*Refrain from endorsing or rejecting any brand. Everyone has their own opinion as to what is best. Rather, explain to the students that the best bow is what they are comfortable shooting, and what they can shoot well consistently. Express that a certain type of bow, or a certain brand of bow, is only as effective as its user.*
  
3. Do people ever use sights or other accessories on traditional bows?  
*Yes, there are traditional bows available that are made to accept modern conveniences. There are also different shooting techniques (e.g. walking the string, changing anchor point) that a user can employ to aid in aiming a traditional bow.*
  
4. Why aren't crossbows legal in Massachusetts?  
*By Massachusetts statute (MGL 131 s69), crossbows are not a legal means of hunting unless the hunter is permanently disabled to the point that they can't draw a conventional bow. To change a law requires an act of legislature. If individuals wish to have this law changed, they need to contact their state representatives.*





# INSTRUCTOR GUIDE

## LESSON 4: TREESTAND SAFETY

V. 2/2018

### Bowhunter Education 2017 Standards – Section 4 Objectives 10, 13, 14, 15, & 16

<p><b><u>Instructor Notes</u></b></p> 	<p>This lesson introduces the students to the knowledge and skills necessary for the safe and proper use of tree stands while hunting. This lesson corresponds with Chapter 6 (pgs. 45-49) in the Today's Bowhunter student manual. Teach this lesson to the entire class.</p> <p><b>Teaching Methods Used In This Lesson</b></p> <ul style="list-style-type: none"><li>• Lecture</li><li>• Demonstration</li></ul>
<p><b><u>Time Suggested</u></b></p> 	<p>25 Minutes</p>
<p><b><u>Materials Required</u></b></p> 	<ul style="list-style-type: none"><li>• Climbing, ladder, or hang-on tree stand</li><li>• Full Body Fall Arrest Harness System (FBFAHS)</li><li>• Haul-line</li><li>• Ladder System (if using a Hang-on)</li><li>• Lifeline climbing rope w/ Prusik knot</li><li>• Lineman's style belt</li></ul>

	<ul style="list-style-type: none"> <li>• Suspension relief strap</li> <li>• Treebelt</li> </ul>
<p><b><u>Station</u></b> <b><u>Set-up</u></b>  20 minutes</p>	<ol style="list-style-type: none"> <li>1. Attach one or more types of tree stands of your choice to a live, healthy, and straight tree for this demonstration. <ul style="list-style-type: none"> <li>• climbing tree stand: find a tree with no lower branches; attach both the bottom and upper sections of the stand no more than three feet off the ground; connect the two sections together with a connecting strap</li> <li>• ladder stand: use only the top section of the stand containing the platform; secure the stand to the tree with an attachment strap</li> <li>• hang-on stand: secure it no more than three feet off the ground; place a separate ladder or set of climbing sticks on the tree as well; have the ladder extend at least three feet above the platform of the stand</li> </ul> </li> <li>2. Hang the lifeline climbing rope with Prusik knot on the tree six feet above the platform to show the students how it would be used. The haul line should be hung from the seat of the treestand so that it is within reach while sitting.</li> <li>3. The FBFAHS should be near for easy access.</li> </ol>

**Vocabulary**  
**Builder**



Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.

**Climbing tree stand** – A tree stand consisting of two parts (an upper and lower section) used to climb the tree.

**Full Body Harness** - A harness with five points of contact (e.g. left leg, right leg, midsection, left arm, and right arm, and includes a tether)

**Full Body Fall Arrest Harness System (FBFAHS)** – A fall arrest system that includes a Full Body Harness, a tethering system designed to keep you continuously attached to the tree (tree belt, lineman’s belt, or lifeline climbing rope), and is designed to keep you upright after a fall.

**Hang-on tree stand** – A tree stand that is attached to a tree with either straps or chains where the primary means of climbing the tree is separate from the stand.

**Haul line** – A rope, or other device, that is used to pull a hunter’s equipment up into the stand.

**Lifeline climbing rope** – A rope, with Prusik knot, attached to the tree for maintaining a connection to the tree while ascending and descending.

**Ladder stand** – A tree stand with a built in ladder.

**Lineman’s style belt** – An adjustable strap or rope that is wrapped around the tree and attaches to both sides of a harness and allows the hunter to be secured to the tree with their hands free.

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**Lock-on tree stand** – Synonymous with Hang-on tree stand

**Portable tree stand** – Synonymous with Hang-on tree stand

**Prusik knot** – A friction knot used to put a loop of cord around a climbing rope.

**Suspension relief system** – In the event of a fall, a strap that is connected to your full body harness near the waist and hangs down toward your feet. The hunter stands in the strap to relieve the pressure from his lower extremities to prevent suspension trauma.

**Suspension trauma** – An effect that occurs when a hunter hangs from their harness for a period of time and blood circulation is restricted due to pressure on the lower extremities.

**Tether** – A shock absorbing strap on a full body harness that extends from the top of the hunters back to the treebelt.

**Treebelt** – A strap that surrounds the tree, to which the tether is attached, to anchor the hunter to the tree.

## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<p>The purpose of the focus activity is to get everyone focused on the lesson. Ask: “Can anyone tell me the three types of treestands?” (<i>hang-on, climbing, ladder</i>) Follow-up this question by stating that no matter which style a hunter uses; they must take safety precautions while using them.</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p>State the learning objectives to the students. “At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"> <li>• list the common types of bow hunting injuries and how to prevent them;</li> <li>• identify the causes of falls from an elevated stand;</li> <li>• identify safe practices for hunting from an elevated stand;</li> <li>• explain how the Full Body Fall Arrest Harness System is essential for reducing the risk of serious injury;</li> <li>• And describe how to recover from a tree stand fall.”</li> </ul>
<p><b><u>PART C:</u></b></p> <p><b><u>Teaching Method</u></b></p>  <p>15 minutes</p>	<p>State: “Each year, across the country more hunters are injured from falling out of a tree stand than from any other hunting related incident.”</p> <ol style="list-style-type: none"> <li>1. Ask: “Does anyone know at what point, while using a tree stand, most falls occur?” Allow time for a few responses and continue by explaining that:             <ul style="list-style-type: none"> <li>• Errors occur while climbing into or out of the stand</li> <li>• Errors are made in the placement and use of equipment                 <ul style="list-style-type: none"> <li>○ not following manufacturers recommendations; watch the video</li> <li>○ not selecting proper tree (select live trees)</li> </ul> </li> </ul> </li> </ol>

- leaving stand on tree for long periods (*weather wear; tree growth*)

Note: When showing the FBFAHS, demonstrate how to properly wear the Full Body Harness (FBH).

2. Explain and demonstrate a FBFAHS and how it works:
  - FBH is advised over single strap harness
    - distributes fall forces throughout the body, reducing the chance of injury
    - keeps the hunter suspended upright in the event of a fall
  - Explain the benefits of a vest style over a strap style FBH
    - easier to put on
    - more likely to be put on correctly
    - can easily be put on in dark
3. State the importance of staying connected to the tree with a FBFAHS from the time they leave the ground until they return to the ground, and explain how to achieve this with each option and when each option would be sufficient:
  - Lifeline climbing rope with Prusik knot – hang-on, ladder
  - Lineman’s style belt – hang-on
  - Treebelt – climbing
4. State the importance of three points of contact while climbing any treestand with a ladder or steps (i.e. two hands and one foot or one hand and two feet).
5. Explain how high above the platform to secure the treebelt to the tree and why:
  - Tether should have no slack when sitting
  - Allows the hunter to more easily re-enter the stand after a fall

- 
6. Say: “Even though you’ve taken precautions to prevent a fall from a tree stand, sometimes incidents still happen. In the event you do fall, you need to understand how to recover.” Explain to the students the process of recovering after a fall:
    - Don’t panic
    - Re-enter the stand as soon as possible
    - If they cannot re-enter the stand on their own, they will need to signal for help
      - cell phone
      - whistle
      - personal locator beacon
      - keep signaling device within reach
    - Take precautions to prevent suspension trauma
  7. Explain the dangers of suspension trauma and how to best avoid it:
    - Being suspended causes blood to pool in legs
    - Use a suspension relief strap to relieve pressure from the legs
    - Move the legs to keep blood flowing
  8. Explain the importance of proper harness care:
    - Discard a full body harness after a fall
    - Harnesses have an expiration date and should be replaced in a timely manner
  9. Explain how and why to properly and safely use a haul line to lift gear into a tree stand:
    - Have it connected within easy reach while sitting
    - Never climb with anything in their hands or on their back
    - Raise bow with nock end of arrows pointing down
    - Lower bow with nock end of arrows pointing up
    - Crossbow unloaded with barrel facing down
-

	<p>10. Explain/demonstrate to students that when shooting a bow from an elevated position the archer must maintain proper form while shooting downward by bending at the waist.</p> <p>Students are not being tested at this stage; they are gaining new knowledge. Your role as the instructor is that of a facilitator/coach to help the students learn the material. Lead the students through the discussion, and ensure everyone thoroughly understands the information and vocabulary.</p>
<p><b><u>PART D:</u></b></p> <p><b><u>Student Summary</u></b></p>  <p>3 minutes</p>	<p>Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.</p> <ul style="list-style-type: none"> <li>• When do most falls occur?</li> <li>• What device do we use to reduce injuries from falls?</li> <li>• When should you attach yourself to the tree?</li> </ul> <p><b>END OF LESSON</b></p>
<p><b><u>Additional Instructor Notes</u></b></p> 	<p>If time remains at the end of the lesson, use the time to show the students characteristics of the tree stand (i.e. climbing, hang-on, or ladder) and explain the differences among the three types of stands including how each stand works, when each stand should and can be used, and how to get in and out of each stand safely.</p> <ul style="list-style-type: none"> <li>• hang-on: use a lineman’s belt; use a lifeline climbing rope; maintain three points of contact while climbing; attach FBH to the Prusik knot before ascending; climb above the stand and step down onto the center of the platform; check to ensure the stand supports weight before placing all of your</li> </ul>

weight onto the stand

- climbing: attach the top and bottom sections to the tree; secure top to bottom with connecting straps; bottom section must be placed low enough on the tree to easily step onto the platform; top section is attached at shoulder height; step onto the platform and stand up through the top section; attach the FBH to the tree
- ladder: need multiple people for set-up; use a lifeline climbing rope; maintain three points of contact while climbing; attach FBH to the Prusik knot before ascending

Addendum

A



**INDOOR OPTION – SAFE TREESTAND HUNTING STRATEGIES VIDEO**

Although an outdoor learning station is preferred, it may not always be an option. In this case, teach the lesson with a video and discussion.

**Time allotted:** 35 minutes

Introductory discussion: ~ 5 minutes

Video: ~ 24 minutes 37 seconds

Discussion/review: ~ 5 minutes

**Materials Needed:**

- Audio visual equipment (DVD player, projector, and screen)
- “2009 Safe Treestand Hunting Strategies” DVD
- Full Body Fall Arrest Harness System (FBFAHS)
  - full body harness
  - lineman’s style belt
  - treebelt
  - suspension relief system
- Lifeline climbing rope

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**Set-up:**

Prior to the lesson, start the video and choose the “Hang-on stand” option from the Main Menu. Cue the video to 3:23 and pause until ready. Close the cover of the projector to block the image so the students don’t get distracted during the introduction.

**PART A – Focus Activity**

Complete the focus activity on page 4

**PART B – Objectives**

State the objectives on page 4

**PART C – Teaching Method**

1. Inform the students that they will now watch a 25 minute video on the proper and safe use of treestands. **End the video at 28:00 run time indicated on the DVD player.**

**Note: If you do not stop the video, it will play continuously for several minutes beyond the 28:00 minute mark.**

2. Follow up the video by reviewing the key points
  - FBFAHS
    - follow manufacturer instructions;
    - remain attached from the moment you leave the ground until you return;
    - prevent suspension trauma after a fall)
    - answer any questions the students may have.
  - If time remains demonstrate the use of the full body harness and lineman’s style belt, and inform the students that it will be available during breaks if they would like to take a closer look or try it on themselves.

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**PART D – Student Summary**

Conclude with the student summary on page 8

**END OF LESSON**

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**Addendum**

**B**



**FREQUENTLY ASKED QUESTIONS**

1. Which stand do you prefer and why?

*This is going to be a personal answer. Feel free to discuss why you prefer a specific style, but try to avoid talking about specific brands.*

2. Can you use a tree that has tree limbs?

*Yes, tree limbs can be very helpful for concealment. However you must use a hang-on or a ladder stand. A climbing stand can't be safely maneuvered around tree limbs while climbing.*

3. Does hunting out of a tree make it easier/harder to get a shot?

*Treestands typically allow the hunter to view wildlife approaching at a further distance and helps to conceal the hunter's movements; however, by being elevated, the size of the hunters target is made smaller because of the hunter's angle to the target. The higher in elevation, the more acute the angle, thus the smaller the target.*

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## LESSON 5 PERSONAL PREPAREDNESS HUNTING TRIP PLAN

V. 2/2018

Hunter's Name: \_\_\_\_\_

Hunter's Contact Info: \_\_\_\_\_

Companions & Contact Info: \_\_\_\_\_  
\_\_\_\_\_

What/how you're hunting: \_\_\_\_\_

Date and Time of Departure: \_\_\_\_\_

Date and Time of Return: \_\_\_\_\_

Destination: \_\_\_\_\_ Martha B. Deering Wildlife Management Area, Millbury, MA

Departure Route: Starting from Weston, MA; \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Return Route: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Special Equipment: \_\_\_\_\_  
\_\_\_\_\_

Vehicle Make: \_\_\_\_\_ Model: \_\_\_\_\_ Color: \_\_\_\_\_ Plate #: \_\_\_\_\_

**Note: If traveling to remote areas to hunt, attach a detailed map with travel routes marked.**

Use the road map and aerial photograph of your hunting property to complete the departure and return routes section of the hunting trip plan.



Your Hunting Property





## LESSON 5 PERSONAL PREPAREDNESS HUNTING TRIP PLAN

V. 2/2018

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Hunter's Name: \_\_\_\_\_

Hunter's Contact Info: \_\_\_\_\_

Companions & Contact info: \_\_\_\_\_

\_\_\_\_\_

What/how you're hunting: \_\_\_\_\_

Date and Time of Departure: \_\_\_\_\_

Date and Time of Return: \_\_\_\_\_

Destination: \_\_\_\_\_ English Salt Marsh Wildlife Management Area, Marshfield, MA

Departure Route: Starting from Taunton, MA: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Return Route: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

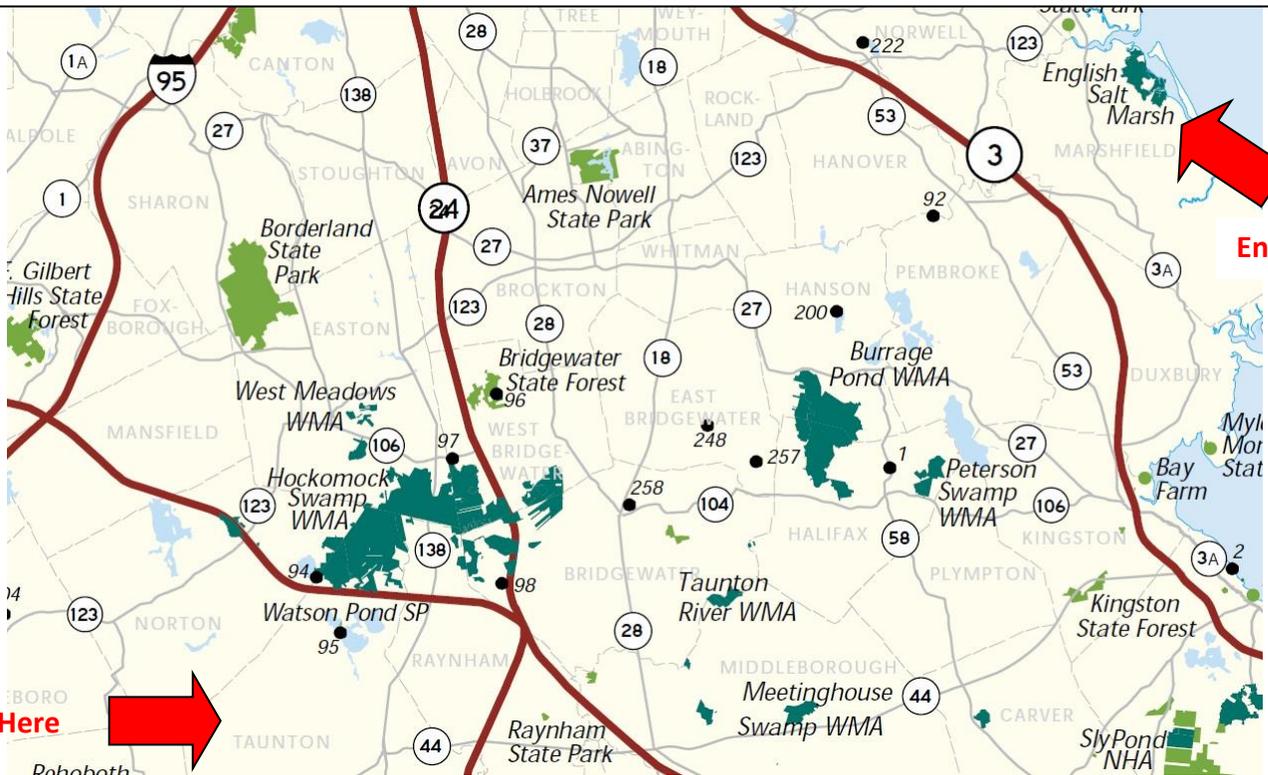
Special Equipment: \_\_\_\_\_

\_\_\_\_\_

Vehicle Make: \_\_\_\_\_ Model: \_\_\_\_\_ Color: \_\_\_\_\_ Plate #: \_\_\_\_\_

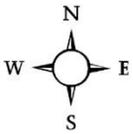
*Note: If traveling to remote areas to hunt, attach a detailed map with travel routes marked.*

Use the road map and aerial photograph of your hunting property to complete the departure and return routes section of the hunting trip plan.



Start Here

End Here



Your Hunting Property



## LESSON 5 PERSONAL PREPAREDNESS HUNTING TRIP PLAN

V. 2/2018

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Hunter's Name: \_\_\_\_\_

Hunter's Contact Info: \_\_\_\_\_

Companions & Contact Info: \_\_\_\_\_

\_\_\_\_\_

What/how you're hunting: \_\_\_\_\_

Date and Time of Departure: \_\_\_\_\_

Date and Time of Return: \_\_\_\_\_

Destination: \_\_\_\_\_ Day Mountain Wildlife Management Area, Dalton, MA

Departure Route: Starting from Goshen, MA: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Return Route: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

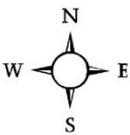
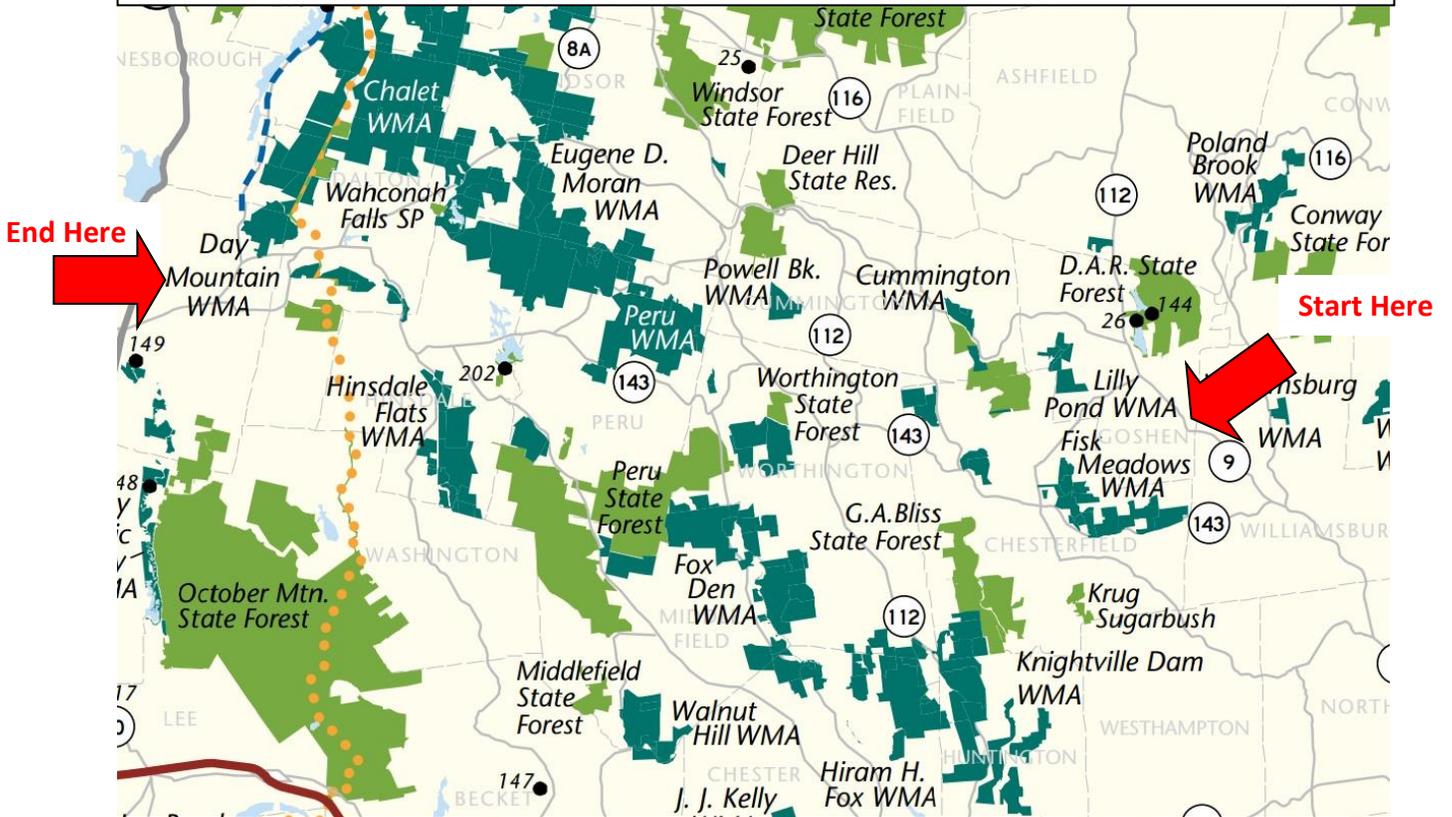
Special Equipment: \_\_\_\_\_

\_\_\_\_\_

Vehicle Make: \_\_\_\_\_ Model: \_\_\_\_\_ Color: \_\_\_\_\_ Plate #: \_\_\_\_\_

*Note: If traveling to remote areas to hunt, attach a detailed map with travel routes marked.*

Use the road map and aerial photograph of your hunting property to complete the departure and return routes section of the hunting trip plan.





## LESSON 5 PERSONAL PREPAREDNESS HUNTING TRIP PLAN

V. 2/2018

Hunter's Name: \_\_\_\_\_

Hunter's Contact Info: \_\_\_\_\_

Companions & Contact Info: \_\_\_\_\_

\_\_\_\_\_

What/how you're hunting: \_\_\_\_\_

Date and Time of Departure: \_\_\_\_\_

Date and Time of Return: \_\_\_\_\_

Destination: \_\_\_\_\_ William Forward Wildlife Management Area, Rowley, MA

Departure Route: Starting from Andover, MA; \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Return Route: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

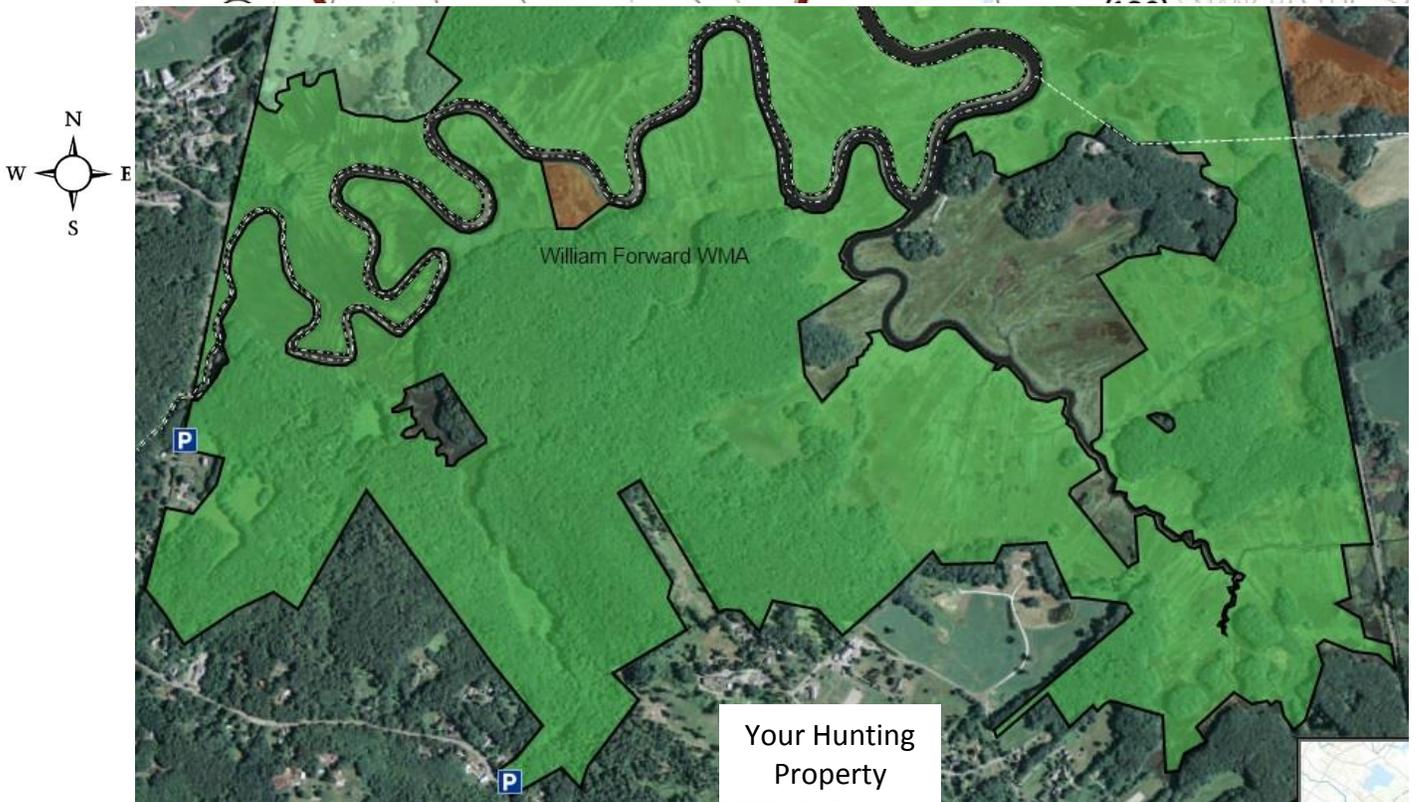
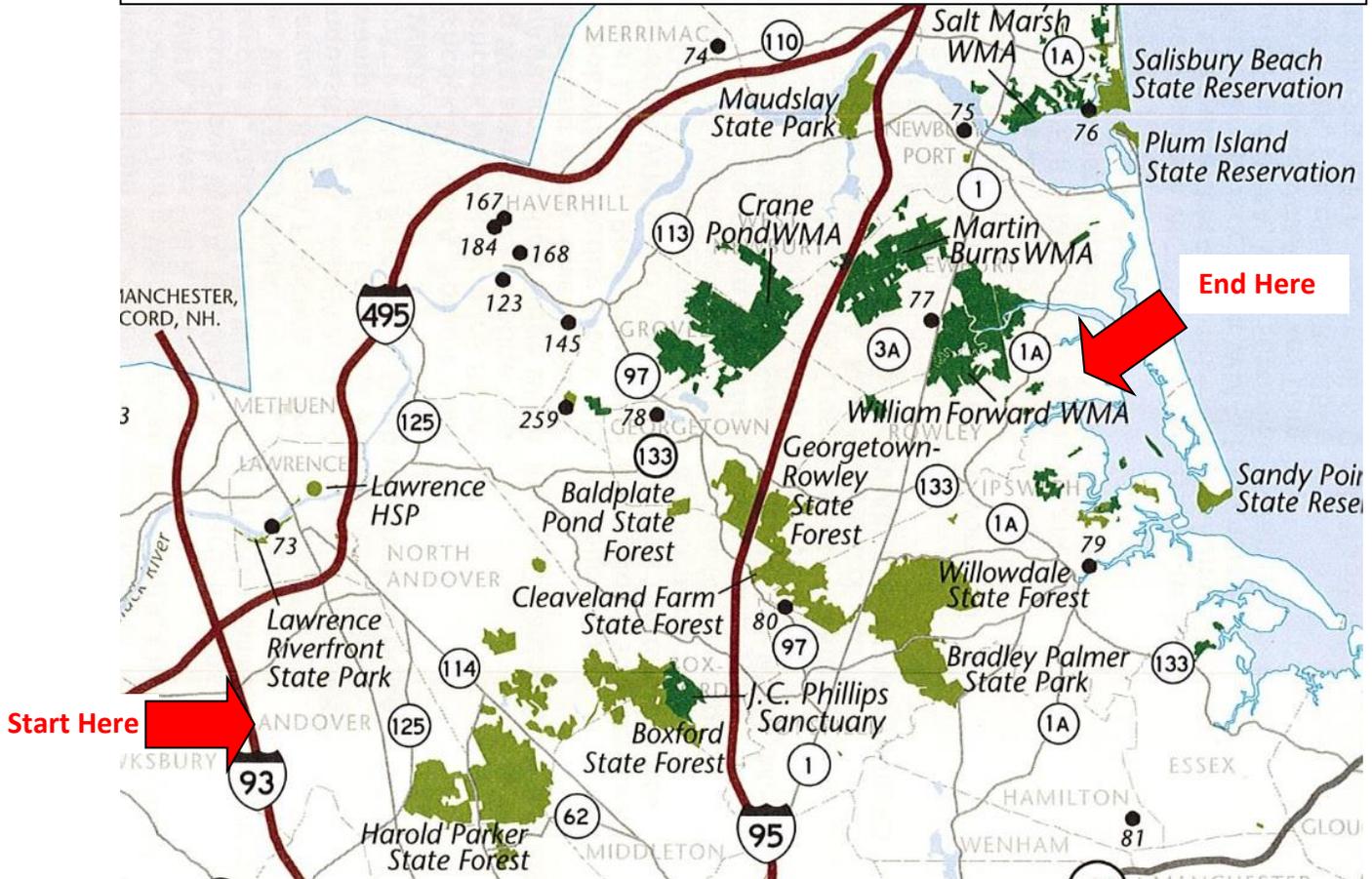
Special Equipment: \_\_\_\_\_

\_\_\_\_\_

Vehicle Make: \_\_\_\_\_ Model: \_\_\_\_\_ Color: \_\_\_\_\_ Plate #: \_\_\_\_\_

*Note: If traveling to remote areas to hunt, attach a detailed map with travel routes marked.*

Use the road map and aerial photograph of your hunting property to complete the departure and return routes section of the hunting trip plan.





# INSTRUCTOR GUIDE

## LESSON 5: PERSONAL PREPAREDNESS

V. 2/2018

### Bowhunter Education 2017 Standards – Sections 4 & 6 Objectives 17, 18, 19, 20, 21, & 38

<p><b><u>Instructor Notes</u></b></p> 	<p>In this lesson, students are introduced to the knowledge considered necessary for physically preparing for a hunt, and the equipment and skills needed in a survival situation. This lesson corresponds with Chapter 8 (pgs. 65-74) in the Today's Bowhunter student manual. Teach this lesson to the entire class.</p> <p><b>Teaching Methods Used In This Lesson</b></p> <ul style="list-style-type: none"><li>• Lecture</li><li>• Discussion</li><li>• Small group work</li></ul>
<p><b><u>Time Suggested</u></b></p> 	<p>40 Minutes</p>
<p><b><u>Materials Required</u></b></p> 	<ul style="list-style-type: none"><li>• Audio visual equipment (projector &amp; screen)</li><li>• Silvertip's "Hunter Education Video Series" DVD</li><li>• Whiteboard/easel</li><li>• Hunting Trip Plan Worksheets (1 for every 2-4 students)</li></ul>

**Station**

**Set-up**



10 minutes

1. Setup the AV equipment with the Silvertip DVD.
2. The video will run through 30 seconds of intro credits before getting to the main menu.
3. Close the projector cover until you are ready to show the video.
4. Place the whiteboard/easel in the front of the room to the side of the screen.
5. Stage the hunt trip plan worksheets so they're readily accessible.
6. Decide ahead of time how you will divide the students into groups.

**Vocabulary**

**Builder**



Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.

**First-aid kit** – A collection of equipment for use in giving first aid to an individual.

**Heat cramps** – A condition where excessive sweating depletes the body of salt and moisture, leading to painful muscle cramps.

**Heat exhaustion** – A condition of having symptoms of heavy sweating, rapid pulse, and dehydration as a result of your body overheating.

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**Heat stroke** – A serious medical condition where the body becomes excessively overheated and dehydrated.

**Hunting trip plan** – A written plan of where you intend to hunt, how long you plan to be gone, who you are hunting with, and the time and date you will return.

**Hyperthermia** – The condition of having an abnormally high body temperature.

**Hypothermia** – The condition of having an abnormally low body temperature.

**Personal flotation device (PFD)** – A piece of equipment designed to keep a user afloat in water.

**Survival kit** – A pack of equipment available for personal use in emergency situations.

**Wind chill** – The rate of heat loss from exposed skin caused by wind and cold.

## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<p>The purpose of the focus activity is to get everyone focused on the lesson. Ask: “Has anyone ever been lost or participated in the rescue of someone who was lost?”</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p>State the learning objectives to the students. “At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"> <li>• identify items that should be included in every survival kit;</li> <li>• describe the STOP principle and how it helps if lost outdoors;</li> <li>• identify reasons for preparing and following a hunt plan;</li> <li>• explain the importance of personal preparedness when outdoors;</li> <li>• identify causes, symptoms, and treatments of hypothermia and heat exhaustion;</li> <li>• and describe layering for both mild and cold weather climates.”</li> </ul>
<p><b><u>PART C:</u></b></p> <p><b><u>Teaching Method</u></b></p>  <p>20 minutes</p>	<p>Say: “We’re going to begin with a video that introduces several topics about outdoor safety and personal preparedness. After the video we will have a brief discussion and do an exercise in small groups.”</p> <ol style="list-style-type: none"> <li>1. Play the “Outdoor Safety” chapter of the DVD. The video has a run time of 15 minutes and 35 seconds. Stop the video when the end credits begin to play and cover the projector lens.</li> </ol>

2. After the video, have a brief discussion with the students summarizing topics from the video. Begin by asking the students “why is personal preparedness important for a hunter?”
3. Ask the students, “if you are in a survival situation, and you can’t get yourself out of the situation, what is something you could have done ahead of time to ensure that someone will search for you and find you?”
4. Emphasize the importance of filing a Hunting Trip Plan with two responsible people who you know will follow up with the authorities if you don’t report back when scheduled.
5. Ask the students, “What information should be included in a Hunting Trip Plan”? Write the three W’s on the white board and explain each:
  - Where – informs others of your location (i.e. where to search for you)
  - Who – informs others of your companions (i.e. who is going with you)
  - When – informs others of your schedule (i.e. when to consider you overdue and to alert the authorities)

**PART D:**

**Student Exercise**



15 minutes

6. The purpose of the student activity is to have the students identify the reasons for preparing a plan. Have the students work in small groups to complete the Trip Plan Worksheet using the maps on the reverse side. Give the students 5 minutes to complete the Trip Plan.

Note: There are 4 different hunting locations/maps on the worksheets (1 in Western MA, 1 in Central MA, 1 in Northeast MA, and 1 in Southeast MA.)

	<p>7. Select groups to report back to the class as time allows. Use the Southeast MA location (English Salt Marsh WMA) to discuss the importance of a Personal Flotation Device (PFD) while hunting.</p> <p>Students are not being tested at this stage; they are gaining new knowledge. The role of the instructor is that of a facilitator/coach to lead the students the discussion.</p>
<p><b><u>PART E:</u></b></p> <p><b><u>Student Summary</u></b></p>  <p>3 minutes</p>	<p>Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.</p> <ul style="list-style-type: none"> <li>• What items should be in every survival kit?</li> <li>• What are the symptoms of hypothermia?</li> <li>• What are the symptoms of heat exhaustion?</li> </ul> <p><b>END OF LESSON</b></p>
<p><b><u>Addendum</u></b></p> <p><b><u>A</u></b></p> 	<p><b>FREQUENTLY ASKED QUESTIONS</b></p> <ol style="list-style-type: none"> <li>1. Have you ever been lost? <i>The answer to this question is going to be different for every instructor. Be honest. If you have been lost, explain what allowed you to get out safely.</i></li> <li>2. What are the chances of survival after getting lost? <i>Don't try to cite statistics that you do not know. Turn this question around by stating that your chances of survival are much higher if you have properly prepared by bringing extra food, a survival kit, and ways to signal for help.</i></li> </ol>

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3. How long does it take to die from Hypothermia?

*The length of time it takes for hypothermia to lead to death is completely dependent on many factors, including the age, health, and fitness of the individual, as well as whether the individual is wet or dry and the temperature they are exposed to.*





## INSTRUCTOR GUIDE

### LESSON 6: EQUIPMENT SELECTION

V.2/2018

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#### Bowhunter Education 2017 Standards – Sections 2,3 & 6

#### Objectives 8, 10, 12, 26, 28

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#### Instructor Notes



This lesson introduces the students to the knowledge needed to select the proper archery equipment. This lesson corresponds with Chapter 4 (pgs. 28-35) in the Today's Bowhunter student manual. Teach this lesson as part of a Round Robin with a small group (4-8) of students.

#### **Teaching Methods Used In This Lesson**

- **Lecture**
- **Discussion**
- **Demonstration**

#### Time Suggested



20 Minutes

#### Materials Required



- Arrow tips (target point, small game heads, mechanical broadhead, removable-blade broadhead, and fixed blade broadhead)

- 
- Arrows fletched for display (carbon, fiberglass, aluminum, wood, flu-flu, and crossbow bolt)
  - Bow Fit exerciser bands (1 of each size)
  - Bow target
  - Compound bow (equipped with sight and rest)
  - Crossbow
  - Draw length indicator bow
  - Long bow
  - Mechanical releases (wrist strap, handheld, back tension)
  - Protective equipment (arm guard and finger tab/glove)
  - Quivers (hip/field quiver, detachable bow quiver, back quiver)
  - Recurve bow
  - Tables (Two 8 footers)
  - Traditional bow stringer

**Station**

**Set-up**



20 minutes

1. Set up two 8' tables to display archery equipment.
2. Lay out all archery equipment. Place all the bows together, arrows together, and accessory equipment together in the order in which you will speak about it.

**Vocabulary  
Builder**



Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.

**Arm guard** – A wrap around an archers bow arm that prevents the bowstring from slapping the archer's arm.

**Arrow fletching** – A feather or plastic vane glued onto the rear of the arrow shaft that causes the arrow to spin and stabilize the arrow in flight.

**Arrow shaft** – The body of the arrow, typically made with wood, fiberglass, aluminum, or carbon fiber.

**Arrow spine** – The amount of deflection of a 28" arrow with a 1.94 pound weight hanging from the center of the arrow.

**Blunt tip** – A tip of an arrow with a flat end used for shooting small game.

**Bolt** – A crossbow arrow consisting of a head, shaft, fletch, and nock.

**Bowstring** – The string of the bow which is pulled to engage the limbs and released to propel the arrow.

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**Bow stringer** – A string used to flex the limbs of a traditional bow so that the bowstring can be put on the bow.

**Broadhead** – A tip of an arrow with razor sharp blades used for big game.

**Cable** – The strings of a compound bow or crossbow which link the cams.

**Cable guard** – A rod that extends back from the riser of a compound bow that holds the cables out of the path of the arrow.

**Cam** – The mechanical wheel at the end of a compound bow's (or crossbows) limb.

**Compound Bow** – A bow with one or two cams mounted on the end of the limbs that allow faster speeds, greater energy, and let-off.

**Crossbow** – A bow with the limbs mounted horizontally on a shouldered stock and is fired like a firearm.

**Draw length** – The measurement at full draw from the nock point to the throat of the grip plus 1  $\frac{3}{4}$ ".

**Draw weight** – The peak amount of weight an archer will pull while drawing the bow.

**Dry-fire** – Pulling a bowstring back and releasing it without having an arrow in the bow.

**Expandable broadhead** – see Mechanical broadhead.

**Finger tab/glove** – A piece of fabric used to shield the archer's fingers from the bowstring to allow a smooth release of the

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bowstring.

**Fixed-blade broadhead** – A broadhead typically used for big game with at least two permanent blades.

**Fletching** – Feathers or plastic vanes around the nock end of the arrow shaft that helps stabilize the flight of the arrow.

**Flu-flu** – An arrow with large fletchings to produce increased drag to limit the distance the arrow will fly. Generally used for aerial shooting.

**Helical** – Fletchings are glued on in a slight spiral pattern around the shaft.

**Horizontal bow** – A bow that is held horizontally while shooting (e.g. crossbow).

**Judo point** – A tip of an arrow used for shooting small game that consists of a blunt end with wires sticking out to the side.

**Kisser button** – A small piece of plastic that fits around the bowstring slightly above the nocking point that is placed at the corner of the shooter's mouth upon drawing the bow back.

**Let-off** – A percentage that the draw-weight is reduced upon reaching full draw.

**Long bow** – A bow resembling a stick and string.

**Mechanical broadhead** – A broadhead typically used for big game with at least two blades that open upon impact with the target.

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**Mechanical release aid** – A trigger device an archer uses instead of their fingers to draw and release the bowstring.

**Nock** – A slot in the end of an arrow that fits on the string.

**Nocking point** – The location on a bowstring where the arrow is connected.

**Peep sight** – A small piece of plastic or metal that is inserted into the bowstring above the nock to serve as a rear sight window.

**Quiver** – A container that may or may not be attached to the bow that stores the arrows and can cover broadheads securely.

**Recurve bow** – A bow resembling a stick and string with the limbs curved away from the archer.

**Removable-blade broadhead** – A broadhead typically used for big game with at least two replaceable blades.

**Riser** – The stiff frame of a bow that the limbs extend from.

**Serving** – A small diameter string that is wound tightly around the bowstring, typically where the arrow is nocked and where the bowstring meets the cams.

**Target point / Bullet point / Field tip** – A tip of an arrow used for shooting practice targets.

**Traditional Bow** – A longbow or recurve bow.

**Vertical bow** – A bow that is held vertically when shooting (e.g. compound, longbow, recurve).

## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<p>The purpose of the focus activity is to get everyone’s attention focused on the lesson. Ask, “can anyone tell me why ensuring the bow is properly fitted to the shooter would be important?”</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p>State the learning objective to the students. “At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"> <li>• list three ways bowhunting equipment must be properly matched;</li> <li>• list the common types of bowhunting injuries and how to prevent them;</li> <li>• explain why proper storage and transportation is important;</li> <li>• describe how to match a bow with an arrow and then to the individual hunter;</li> <li>• and describe how to adjust a bow to fit the hunter’s current physical condition.”</li> </ul>
<p><b><u>PART C:</u></b></p> <p><b><u>Teaching Method</u></b></p>  <p>8 minutes</p>	<p>Ask: “does anyone know the two ways a bow must fit an archer?” Discuss the following topics:</p> <ol style="list-style-type: none"> <li>1. Explain what draw weight is and why it’s important:             <ul style="list-style-type: none"> <li>• The peak weight pulled when the bow is drawn back</li> <li>• Must be a weight that an archer can comfortably pull back multiple times without stress</li> <li>• Wearing layers of clothes in cold weather may change the weight a bowhunter can pull</li> </ul> </li> </ol>

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2. Explain what draw length is and why it's important:
    - Distance from the nocking point to the grip while the bow is at full draw, plus  $1\frac{3}{4}$ "
    - There are several methods for determining draw length, and all will put the archer in the correct range, yet it needs to be fine-tuned by a professional bow technician
    - Proper form is a necessity when fine-tuning draw length
  3. Discuss briefly the basic fundamentals of proper form:
    - Foreword arm slightly bent
    - Rear arm straight back
    - Grip hand relaxed
    - Bow string to nose and corner of mouth
    - Crossbow should be held with firearm fundamentals
  4. Discuss the importance of selecting the proper arrow for the bow:
    - Arrow length
      - Arrow must be long enough to prevent being drawn back beyond the rest
      - Arrow must be long enough to prevent a broadhead from cutting a finger on the shooter's grip hand or making contact with the riser
    - Arrow weight
      - The unit of measure for arrow weight is grains
      - An arrow too light will not properly absorb the energy of the bowstring and may shatter when released
    - Arrow spine (i.e. stiffness)
      - Heavier draw weights require stiffer arrows
      - Arrows that are not stiff enough may shatter from the force of the bowstring
      - Use the chart on the box, or manufacturer's website, to determine recommended arrow
-

**PART D:**

**Student  
Exercise**



13 minutes

5. Explain to the students what dry-firing a bow is and why it should never be done:
  - Drawing a bowstring and releasing it (intentional or not) without an arrow on the bow; never draw a bow without an arrow
  - The majority of the energy of a bow is transferred to the arrow during the shot. Without an arrow on the bow, all of the energy is disseminated throughout the bow. This can cause the bow to break and accessories to fly off.
6. Inform the students that they will now be allowed handle any of the equipment (no drawing the bows) and open the lesson up for discussion.
7. Explain the importance and proper method for storing and transporting archery equipment:
  - Wax the bowstring
  - Store/transport in a hard case
  - Some jurisdictions require that a bow be in a case when in a vehicle or on an ATV/UTV
  - Do not store a bow in a hot vehicle

Students are not being tested at this stage; they are gaining new knowledge and practicing proper form. Your role as the instructor is that of a facilitator/coach to help the students learn the material.

**PART E:**

**Student  
Summary**



2 minutes

Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.

- What are the two measurements that a bowhunter must consider when purchasing a bow?
- What is the bare minimum weight an arrow should be?
- What is dry-firing a bow and why is it a bad thing to do?

**END OF LESSON**

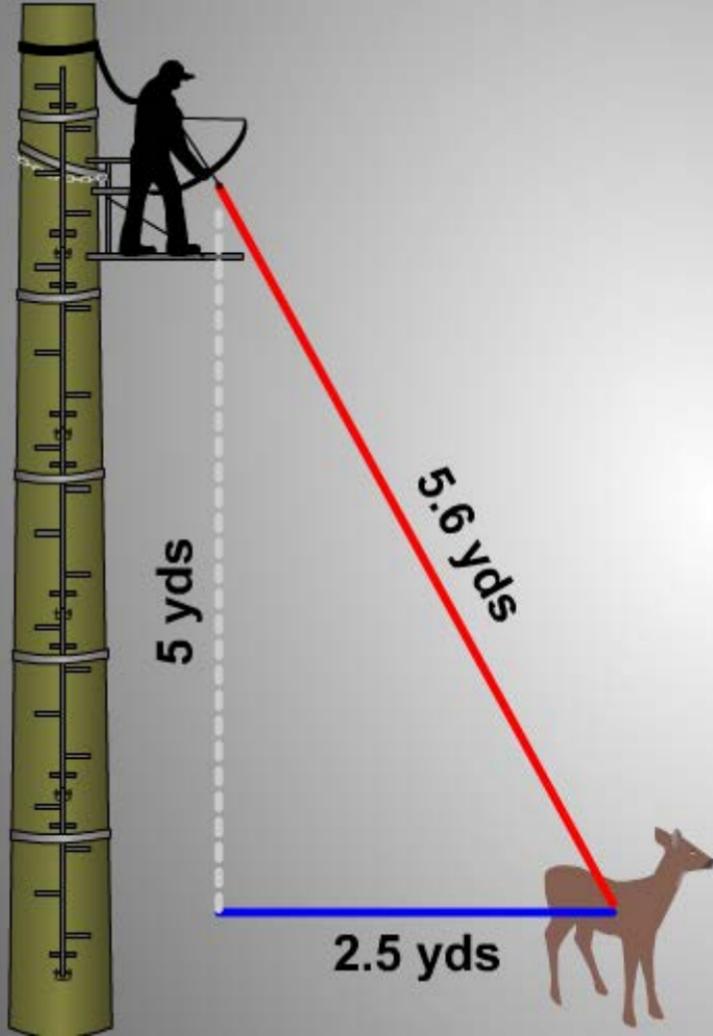
**Addendum**

**A**



**FREQUENTLY ASKED QUESTIONS**

1. Why would a bowhunter choose to use a traditional bow?  
*Some hunters prefer the “traditional” feel of using a recurve or longbow. Some hunters just prefer the added challenge of these traditional methods.*
2. Is one mechanical release aid safer than another?  
*The most important factor in the safety of the different releases is the user’s familiarity with the release. All of the releases are effective in the hands of a user who is familiar with the release.*
3. Why aren’t crossbows legal in Massachusetts?  
*By Massachusetts statute (MGL 131 s69), crossbows are not a legal means of archery equipment for hunting unless the hunter is permanently disabled to the point that they can’t draw a conventional bow. To change this law requires an act of legislature. Bills are periodically presented to the state House and Senate to change this law, but so they have failed to pass.*



## KEY

-  = Aiming (Horizontal) Distance
-  = Line of Sight Distance
-  = Elevation

When you fire a shot from a gun or a bow, gravity begins pulling the projectile down to earth.

To be accurate when shooting up or down, you should estimate the horizontal distance between you and the target. The actual line of sight distance is irrelevant.

In this illustration, you would aim as if the animal were 2-1/2 yards away.



# INSTRUCTOR GUIDE

## LESSON 7: JUDGMENT AND SHOT PLACEMENT

V. 2/2018

### Bowhunter Education 2017 Standards – Section 6 Objectives 31, 32, 33, 34, & 35

<p><b><u>Instructor Notes</u></b></p> 	<p>This lesson introduces the students to the knowledge and skills needed to determine safe versus unsafe shots and making the best and most ethical shot for the sake of the animal. This lesson corresponds with Chapter 7 (pgs. 53 – 58) in the Today's Bowhunter student manual. Teach this lesson as part of a Round Robin with a small group (4-8) of students.</p> <p><b>Teaching Methods Used In This Lesson</b></p> <ul style="list-style-type: none"><li>• Lecture</li><li>• Discussion</li><li>• Student hands-on activity</li><li>• Demonstration</li></ul>
<p><b><u>Time Suggested</u></b></p> 	<p>20 Minutes</p>
<p><b><u>Materials Required</u></b></p> 	<ul style="list-style-type: none"><li>• Arrow with Field Point</li><li>• 3D archery deer target with exposed vitals</li><li>• 3D archery turkey target with exposed vitals</li></ul>

**Station**

**Set-up**



20 minutes

1. Have the arrow stationed for easy access.
2. Set up 3D targets so they stand broadside to the students with the vital organs hidden.

**Vocabulary  
Builder**



Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.

**Big game** – A classification of legally hunted wild bird or mammal offering a challenge such as deer, bear, and turkey.

**Broadside** – When an animal is standing perpendicular to the shooter, exposing its entire side.

**Clean kill** – When a good shot is delivered and the animal dies quickly with as little suffering as possible.

**Clear shot** – Any shot that is safe and free from obstruction where the animal's vital area is presented to the hunter.

**Quartering away** – When an animal is angled away from the hunter but has not completely turned so that it is facing directly away from the hunter.

**Sky-lined animal** – A game animal that is on top of a hill or in such a position that there is nothing behind the animal to stop an arrow in case of a missed shot.

**Sound shot** – A shot fired at a sound without any other target identification. This is an extremely unsafe practice.

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**Target identification** – The practice of knowing with absolute certainty exactly what a hunter is going to shoot.

**Vital area** – The part of a game animal targeted for an effective kill including the heart, lungs, liver, and major blood vessels of big game.

**“What lies beyond”** – The knowledge that the entire path of the shot, including the area beyond the target, is safe.

## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<p>The purpose of the focus activity is to get everyone’s attention focused on the lesson. Ask: “why would your shot placement on an animal be important?” Follow this question with: “what factors make shot placement more critical with a bow than with a gun?”</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p>State the learning objectives to the students. “At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"> <li>• list various animal orientations or shot angles;</li> <li>• describe why steeper shot angles reduce exposure to vital area;</li> <li>• explain how to properly adjust for uphill/downhill shots;</li> <li>• list vital organs found in the chest cavity;</li> <li>• and identify an aiming spot on an animal diagram for a high percentage shot in the chest cavity.”</li> </ul>
<p><b><u>PART C:</u></b></p> <p><b><u>Teaching Method</u></b></p>  <p>16 minutes</p>	<p>Ask: “what are some things you should consider before taking a shot while bowhunting?”</p> <ol style="list-style-type: none"> <li>1. Discuss the primary target for bowhunters and what vital organs are located in the chest cavity:             <ul style="list-style-type: none"> <li>• Heart</li> <li>• Lungs</li> </ul> </li> <li>2. Discuss the which angles provide the best shots for big game animals with a bow and arrow:             <ul style="list-style-type: none"> <li>• Broadside</li> <li>• Quartering away</li> </ul> </li> </ol>

Note: For steps 3 & 4, ask the students to instruct you where to place the arrow in the target. After the arrow is placed through the hole in the target, instructors should turn the target around so that students can see the path of the arrow and what organs would be hit.

3. Use the 3D deer target to show the students where the vital organs are located within the chest cavity. At this point use the arrow to identify high percentage shots in the chest cavity from different angles.
  - Broadside
  - Quartering away
  - Broadside from an elevated stand
  - Quartering away from an elevated stand
4. Use the 3D deer target to show the students where poor shots and poor shot angles are. Use the arrow and proper holes to demonstrate the following poor shots:
  - Quartering towards
  - Direct shoulder hit
  - Facing away
5. Use the 3D deer target to show the students how steep angle shots reduce exposure to the vital organs. Use the following example:
  - When a hunter takes a broadside shot on an animal with proper shot placement the arrow will pass through both lungs. On a steep angle shot, the arrow will only pass through one lung and the animal could travel a long distance before expiring resulting in a long blood trail.
6. Pass out the Judgment & Shot Placement Student Handout. Instruct students to aim for the horizontal distance to a target, not the line-of-sight distance, while taking uphill and

	<p>downhill shots.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Note: If time remains, use a 3D turkey target to discuss the proper aiming point on a turkey.</p> </div>
<p><b><u>PART D:</u></b></p> <p><b><u>Student Summary</u></b></p>  <p>2 minutes</p>	<p>Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.</p> <ul style="list-style-type: none"> <li>• What vital organs are found in the chest cavity?</li> <li>• What is the best shot angle for a big game animal with archery tackle?</li> <li>• When shooting uphill or downhill, should bowhunters aim using the line of sight distance or horizontal distance?</li> <li>• What force affects arrow trajectory?</li> </ul> <p><b>END OF LESSON</b></p>
<p><b><u>Addendum A</u></b></p> 	<p><b>DIAGRAM</b></p>
<p><b><u>Addendum B</u></b></p> 	<p><b>FREQUENTLY ASKED QUESTIONS</b></p> <ol style="list-style-type: none"> <li>1. What angle is too steep for an ethical shot?</li> <li>2. Is it ok to take head shots?  <i>Only on birds or small game with the proper arrow point. Head shots are not ethical and are rarely lethal for big game animals.</i> </li> </ol>



# INSTRUCTOR GUIDE

## LESSON 8: DISTANCE ESTIMATION

V. 2/2018

### BowHunter Education 2017 Standards – Section 6

#### Objective 29 & 30

<p><b><u>Instructor Notes</u></b></p> 	<p>This lesson introduces the students to the knowledge and skills needed to accurately estimate the distance to a target. This lesson corresponds with Chapter 5 (pgs. 41 &amp; 42) of the Today's Bowhunter student manual. Teach this lesson as part of a Round Robin with a small group (4-8) of students.</p> <p><b>Teaching Methods Used In This Lesson</b></p> <ul style="list-style-type: none"><li>• Lecture</li><li>• Discussion</li><li>• Student hands-on activity</li><li>• Demonstration</li></ul>
<p><b><u>Time Suggested</u></b></p> 	<p>20 Minutes</p>
<p><b><u>Materials Required</u></b></p> 	<ul style="list-style-type: none"><li>• Flagging (at least two pieces)</li><li>• Laser rangefinder (a 100' measuring tape may be substituted if you don't own a laser range finder)</li><li>• Orange cones (4)</li><li>• Pieces of scrap paper (one per student)</li><li>• Writing utensils (one per student)</li></ul>

**Station**

**Set-up**



20 minutes

1. Place an orange cone as the meeting spot for the lesson.
2. Place the remaining three orange cones at varying distances over an open area, or through the woods. Do not place them in a straight line.
3. Place flagging on the ground, or on two objects, exactly 10 yards apart.
4. Have the laser rangefinder, writing utensils, and pieces of paper stationed for easy access.

Note: Do not set up the orange cones on an archery range with target butts at varying distances. This makes it too easy for the students to judge distance.

**Vocabulary Builder**



Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.

**Hunter's effective range** – The maximum distance a hunter can take a shot at an animal with a high probability of a well-placed lethal shot. Varies per individual.

**Laser rangefinder** – A tool used to accurately measure the distance to an object by projecting an invisible laser.

**Pace** – The number of steps it takes an individual to walk a set distance. Varies per individual.

## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<p>The purpose of the focus activity is to get everyone’s attention focused on the lesson. Ask, “why would it be important to be able to accurately estimate the distance to an object.” (<i>to be able to place a lethal shot on an animal</i>)</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p>State the learning objective to the students. “At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"> <li>• State the importance of knowing how to accurately judge distances and incorporate it into practice;</li> <li>• Define the hunter’s effective range.”</li> </ul>
<p><b><u>PART C:</u></b></p> <p><b><u>Teaching Method</u></b></p>  <p>4 minutes</p>	<ol style="list-style-type: none"> <li>1. Discuss why distance estimation is more critical at longer distances for bowhunters:             <ul style="list-style-type: none"> <li>• Since arrows travel slower at longer distances, and gravity has more time to effect the drop of an arrow, the difference in impact points between two shorter distances (e.g. 20yds &amp; 22yds) will be less than the difference in impact points between two longer distances (e.g. 58yds &amp; 60yds)</li> <li>• This could mean the difference between a lethal shot and a missed, or wounded, animal</li> </ul> </li> <li>2. Ask: “what are some methods that a bowhunter can use to accurately estimate the distance to a target?” Discuss:             <ul style="list-style-type: none"> <li>• Familiarizing oneself with how specific distances appear</li> <li>• Practice shooting at unknown distances                 <ul style="list-style-type: none"> <li>○ Randomly throwing a ball target</li> </ul> </li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>○ Stump-shooting (i.e. roving)</li> <li>• Determining a bowhunter's pace</li> <li>• Using a laser rangefinder</li> </ul>
<p><b><u>PART D:</u></b></p> <p><b><u>Student Exercise</u></b></p>  <p>14 minutes</p>	<ol style="list-style-type: none"> <li>3. Inform the students that they will now get an opportunity to estimate some distances. Have each student pick up a writing utensil and a piece of paper.</li> <li>4. Have the students stand next to the orange cone and silently estimate the distances to the three other orange cones. Have each student write down their answers on the piece of paper.</li> <li>5. Once everyone has written down their distances, ask the students to state what they thought the distance was to the closest cone.</li> <li>6. Have one of the students use the laser rangefinder to determine the exact distance to the closest orange cone.</li> <li>7. Use the students previous estimates compared to the actual distance to discuss how easy it is to estimate incorrectly. If a student estimated correctly, or was close, ask them to share with the other students the method(s) they used to estimate the distance correctly.</li> <li>8. Repeat steps 5, 6, and 7 for the remaining two orange cones.</li> <li>9. Explain why it is beneficial for a bowhunter to know their pace: <ul style="list-style-type: none"> <li>• Allows a bowhunter to accurately estimate distance while setting treestands and cutting shooting lanes</li> </ul> </li> </ol>

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- Bowhunters can estimate how many steps it would take to get from object to object and then add the steps to determine distance

10. Have the students determine their pace. Have each student walk at a comfortable gate and count the number of steps they take to walk between the two pieces of flagging. Have each student walk the distance three times. The students can use their pace to extrapolate to other distances.

11. Discuss the importance of a bowhunter knowing their effective range:

- Estimating distance accurately is only part of the solution
- Being able to make a well-placed shot on an animal at varying distances is critical.
- A bowhunter must determine the maximum shooting distance they consistently and comfortably can group arrows, and then stick to that limit
- Additionally, if a bowhunter's sights are set for 20, 30, and 40 yards, how will they handle taking a 25 or 37 yard shot
- It is important to practice shooting at varying distances.

Students are not being tested at this stage; they are gaining new knowledge. Let the students learn how easy it is to misjudge distances. Your role as the instructor is that of a facilitator/coach to help the students learn the material and find ways to improve their distance estimation.

**PART E:**

**Student  
Summary**



2 minutes

Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.

- “Does a bowhunter’s effective range change based on the bowhunting implement (i.e. traditional bow, compound bow, crossbow) they use”?
- What two methods or skills bowhunters should develop in order to accurately estimate distance”(i.e. pacing known distance and size estimation of intended game.)

**END OF LESSON**

**Addendum**

**A**



**FREQUENTLY ASKED QUESTIONS**

1. Is one laser rangefinder better than another?  
*This is a personal preference answer. Do not recommend one brand over another. Instead talk about the unique features that different rangefinders will have and the pros and cons of each.*
2. Is it important for a laser rangefinder to have angle compensation technology?  
*The concept of uphill and downhill shots will be covered in Lesson 7 (Judgment & Shot Placement). A laser rangefinder with this technology just makes it easier for the hunter to ensure they are shooting for the correct distance.*



# INSTRUCTOR GUIDE

## LESSON 9: BIG GAME RECOVERY

V. 2/2018

### Bowhunter Education 2017 Standards – Section 7

#### Objective 40

<p><b><u>Instructor Notes</u></b></p> 	<p>This lesson introduces the students to the knowledge and skills needed to effectively recover big game animals. This lesson corresponds with chapter 7 (pgs. 58 – 62) in the Today’s Bowhunter student manual. Teach this lesson as part of a Round Robin with a small group (4-8) of students.</p> <p><b>Teaching Methods Used In This Lesson</b></p> <ul style="list-style-type: none"><li>• Lecture</li><li>• Discussion</li><li>• Student hands-on activity</li><li>• Role-play</li></ul>
<p><b><u>Time Suggested</u></b></p> 	<p>25 Minutes</p>
<p><b><u>Materials Required</u></b></p> 	<ul style="list-style-type: none"><li>• 3D or 2D deer decoy, or deer hide, to simulate the dead animal at the end of the trail</li><li>• Arrow shafts (2) with fletching only; no tips</li><li>• Bottle of fake blood (2-3 oz. per course) (see Addendum A for recipes on how to make your own)</li><li>• Bright and/or reflective flagging tape</li></ul>

	<ul style="list-style-type: none"> <li>• Deer hair</li> <li>• Deer hoof or man-made tool to make tracks in soil (see Addendum B on how to make your own)</li> <li>• Portable roll out deer blood trail (for indoor setup; see Addendum C for details)</li> </ul>
<p><b><u>Station</u></b> <b><u>Set-up</u></b>  20 minutes</p>	<ol style="list-style-type: none"> <li>1. Create a mock blood trail for a deer. <ul style="list-style-type: none"> <li>• start the blood trail with the area of the shot <ul style="list-style-type: none"> <li>○ use a bloody arrow, some deer hair, and some blood splatter</li> <li>○ place arrow a few feet away to simulate a “pass through” shot</li> <li>○ the trail could also simulate a deer shot with a firearm (e.g. deer hair and blood splatter, minus the arrow)</li> </ul> </li> <li>• lead the blood trail away from the area of the shot with sign every 1-2 yards</li> <li>• the blood trail should contain: <ul style="list-style-type: none"> <li>○ blood droplets</li> <li>○ broken twigs</li> <li>○ tracks</li> <li>○ pooled blood</li> <li>○ a deer bed</li> <li>○ blood on shrubs/trees</li> <li>○ gaps in the trail where blood/sign is lacking</li> </ul> </li> <li>• the length of the trail is location dependent, however, a trail of 20-25 yards is recommended</li> </ul> </li> <li>2. Place the simulated dead deer at the end of the blood trail. Place the deer behind a large tree or bush so that it can't be easily seen by the students until they are near it. This</li> </ol>

helps to prevent the students from rushing through the exercise, and gives them some excitement when they find it.

3. For this lesson, have them assume the role of an active hunter and engage the students as if they have just shot a deer. This technique can instruct the students while having them participate. Have the students meet you 5-10 yards away from the area of the shot to start.

Note: Be aware that in a typical Round Robin, multiple student groups will be using the trail. Design the blood trail so that it is easy for the students to walk beside it without trampling the sign. You may need to refresh the sign between groups.

### Vocabulary Builder



Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.

**Bed** – An oval/circular location on the ground with compacted vegetation where a deer has laid down.

**Bile** – Dark green to brown fluid produced by the liver of most game animals that aids in digestion of food.

**Blood droplets** – Blood that has slowly dropped off of an animal while it was walking or running.

**Blood splatter** – Pattern of blood left on the ground when blood has rapidly spurted out of an animal; either from an initial wound, or from arteries convulsing blood from the

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wound.

**Blood trail** – The path the animal traveled after being shot, marked by the loss of blood from the animal, extending to where it died.

**Dew line** – An observable trail created when an animal has passed through the vegetation disturbing the dew.

**Dispatch** – To safely, ethically, and legally kill a wounded animal.

**Downed animal** – An animal that has been shot and has lain or fallen down.

## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<p>The purpose of the focus activity is to get everyone’s attention focused on the lesson. Role-play and describe the scene of a hunt. For example, say: “you have a treestand set up over there, you’ve been hunting all morning, a deer has just walked into range, you take the shot, and now the real work begins.”</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p>State the learning objective to the students. “At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"><li>• describe the basic steps for successful big game recovery.”</li></ul>
<p><b><u>PART C:</u></b></p> <p><b><u>Teaching Method</u></b></p>  <p>5 minutes</p>	<p>Ask: “when does big game recovery begin? What can you do immediately to aid in recovery of the animal?” Discuss the following topics:</p> <ol style="list-style-type: none"><li>1. Carefully observe every movement of the animal after you shoot:<ul style="list-style-type: none"><li>• Make a mental note of where the animal was standing at the time it was shot</li><li>• Observe the reaction / body language of the animal when it is shot</li><li>• Observe the path the animal takes after the shot</li><li>• Make a mental note of the last spot they saw the animal</li><li>• Take a compass bearing and estimate the distance to the spot the animal was standing</li><li>• Mark your tree so you remember where you were</li></ul></li></ol>

2. Explain why they should wait for a period of time before trailing game:
- Allows the animal time to perish
  - Avoids spooking the animal if it did not go far (bumped wounded game are often unrecovered)
  - Wait 1 hour when bowhunting, or longer if unsure of the shot

Transition into having the students trail the deer by asking the students: “once we’ve waited the proper amount of time, and we start looking for the deer, what types of sign should we look for?” After they give some answers, say “good, so let’s take a look to see if we can find any sign.”

**PART D:**

**Student Exercise**



11  
minutes

Note: One technique you can employ to ensure each student participates is to have them take turns finding sign. When a student finds sign, have them stay put while the next student looks for the next sign, and so on and so forth. However, this does tend to make the exercise take longer.

3. Take the students to the beginning of the blood trail and have the students look for sign. Explain what each type of sign tells the hunter:
- Arrow
    - amount and color of blood
    - presence/absence of air bubbles in blood
    - presence/absence of hair
    - presence of bile
    - presence of fat
  - Blood splatter
  - Hair
  - Kicked up dirt and leaves

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4. Have the students follow the sign. Explain key elements of finding sign and what it means:

- Blood up on vegetation
- Deer bed with pooled blood
- Sign other than blood
  - broken branches
  - dew line
  - tracks

5. Explain how and why to mark sign they find:

- Bright, reflective flagging
- Toilet paper is biodegradable, but it's also white which can be dangerous
- Keep track of the trail
- Helps see path in the dark
- Allows an educated guess of direction of travel

Note: Have the students temporarily hang flagging, or some other marking material, as they find sign. Remember to take the flagging down after each group.

6. Explain the techniques for regaining the trail if sign is lost:

- Return to last point of sign
- Search outwardly in arcs/circles
- Look for downhill trails
- Wounded game will often follow the path of least resistance, especially toward water

Note: Discuss regaining the trail at a point along the blood trail where there is a gap between sign.

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7. Once they find the decoy, explain to them how to approach a downed animal:

- From behind
- Away from its feet

8. Explain how to ensure the animal is dead:

- Check the animal's eyes
  - the eyes of a dead animal are normally open
- Prod the rump with a stick or an arrow to see if the animal reacts

9. Explain to the students how to dispatch an animal that is still alive when found:

- Well placed lethal shot
- Ensure the shot is still legal/safe/ethical
  - greater than 500' of an occupied dwelling
  - greater than 150' from a road
  - during legal hunting hours
  - property you have permission to be on
- If it is no longer legal/safe, contact an EPO for guidance

10. Explain that there are legal requirements that must now be met and the best ways to meet them:

- Tag the animal immediately
- Where to put the tag
- How to keep tag dry
- Which animals in MA require a tag
- Reporting a harvest

Students are not being tested at this stage; they are gaining new knowledge. Let the students follow the trail and find sign on their own. Your role as the instructor is that of a facilitator/coach to help the students follow the trail and learn the material.

**PART E:**

**Student  
Summary**



2 minutes

Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.

- What should you do when you first shoot the animal?
- How much time should you wait before tracking?
- What sign do we look for and what might it mean?
- How do you regain a lost trail?
- How do you approach a downed animal?

**END OF LESSON**

**Additional  
Instructor  
Notes**



**Set-up Notes:**

1. During the summer months, ants and bees may be attracted to your fake blood, take precaution.
2. You may need to refresh the blood trail between groups. Weather may also impact the durability/longevity of the fake blood.
3. You may even consider creating two separate trails that both lead to the same deer. Take different groups along different trails.
4. Setting up the trail along a hiking path is a good way to keep the students from actually walking on the blood trail.
5. Watch for Poison Ivy and Poison Oak and avoid setting up in areas where they are present.

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**Addendum**

**A**



**RECIPES FOR MAKING FAKE BLOOD/BILE**

- Fake Blood – Option 1
  - 8 oz. of glycerin
  - 2 oz. of water
  - .75 oz. of red food coloringCharacteristics:
  - has a shiny consistency
  - holds color well as it dries
  - holds up better in wet conditions
  - most expensive to make
  - will stain clothes/hands
  
- Fake Blood – Option 2
  - whole milk (or half and half)
  - red food coloringCharacteristics:
  - can mix to desired color
  - “blood” has a high protein and fat content similar to real blood
  - readily available ingredients
  - can be lightened or darkened to simulate arterial or venous blood
  - can be made frothy to simulate a lung hit
  - has realistic color when dry
  - does not hold up well in wet conditions
  
- Fake Blood – Option 3
  - Karo Syrup
  - water (just enough to thin mixture to desired consistency)
  - red food coloringCharacteristics:

- 
- can mix to desired color
  - shiny consistency
  - holds color well
  - readily available ingredients
  - holds up well in wet conditions
  - can dry out on hot/sunny days, yet retains a good color
  - attracts ants/bees
  
  - Bile
    - 3 oz. glycerin based dish soap
    - ~5 drops yellow food coloring
    - ~3 drops blue food coloring
    - ~2 drops red food coloring
    - preserved peat moss
  - Directions:
    - mix the dish soap and food colorings to desired green/brown
    - crush some of the peat moss with your hands into a bowl
    - pour some of the bile into the bowl and mix well
    - outcome should resemble greenish/brown stomach contents
  
  - Notes:
    - a small plastic bottle works well for mixing, storage, and use
    - if you make the consistency of the fake blood thin, you may be able to use a spray bottle and mist it onto the trail
    - feel free to create multiple mixtures to show students varying colors/consistencies of blood and what each color may mean
-

**Addendum**

**B**



**DIRECTIONS FOR CREATING AN OUTDOOR “TRACK” STICK**

Cut a stick/limb that is 1½” – 3” in diameter to a length of approximately 48”-60”. Carve (with a knife, saw, or chisel) one end of the stick to look like a 3-dimensional rendering of a deer’s hoof. Use this to create tracks in the soil of your mock deer trail.

**Addendum**

**C**



**DIRECTIONS FOR CREATING A PORTABLE ROLL OUT DEER BLOOD TRAIL KIT**

This kit can be used indoors when there are no outdoor options. A few of these kits are available for check-out from all of our district offices; however, you may wish to create your own portable roll out deer blood trail kit. Below are directions on how to create, set-up, and instruct with your kit.

You will need:

- 3’ x 24’ piece of burlap
- 2 arrows with field points only; no broadheads (1 vital shot; 1 gut shot)
- 24-30 silk leaves from craft store
- two 18” Christmas trees
- 1 sandwich bag of deer hair
- 6 leafy stems to represent vegetation
- 1 fake grassy mat for deer bed
- 30 grassy stems
- thirteen 2” x 4” x 4” wooden blocks with pre-drilled holes for the grassy stems (6 blocks w/ 5 holes), arrows (1 block with two holes), vegetation (6 blocks w/ 1 hole)
- fake blood/bile (see Addendum A)
- 1 deer decoy

- bright flagging
- Plastic tote (36 1/8 " long x 18 1/8" wide x 13 3/4" high = 105 quart) for storage
- Station cards (see Addendum D)

Note: With the exception of the deer decoy, this kit can be created for approximately \$30-\$40.

### Creation/Set-up:

1. Roll out the burlap to represent the trail. There will be six stations along the trail with sign. Stations will be spaced approximately every 4 feet.
2. The first station has two arrows at the beginning of the trail. Place the vital shot arrow (i.e. covered in fake blood) in the block at an angle. During your discussion, you can have the students mark the beginning of the trail by placing the arrow in the hole on top of the block so that the arrow stands upright. Have the gut shot arrow (i.e. covered in green/brown bile) handy to show as a comparison.



3. The second station is blood on leaves, and leaves kicked up by a running deer. Use the leaf stencils and paint leaves on a 2.5' wide section of the burlap. Within this painted section, hot glue silk leaves onto the burlap to represent kicked up leaves.



4. The third station is 6 wooden blocks with one leafy stem standing upright in each. Place blood on the leaves to represent blood on vegetation rather than on the ground. Bend the vegetation towards the end of the trail to represent disturbed vegetation.



5. The fourth station is the two miniature trees. Place these at an offset angle on the burlap and hot glue deer hair on each of the trees. Use this station to mention that not all sign will be blood. You can also hot glue pine cones and pine needles below the trees for realism if you wish.



- 
6. The fifth station is a deer bed. Hot glue a 2' x 2' grassy mat to the burlap. Place 6 of the wooden blocks around the grassy mat and stand 5 pieces of grass in each block. Pool blood in the middle of the bed.



7. The final station is the dead deer. Lay the deer decoy at the end of the burlap and use this station to discuss what to do after finding the deer.



8. Place fake blood on the arrow, leaves, leafy stems, and bed.
9. Use the track stencil to paint tracks leading from each station to the next.
10. Hot glue additional leaves along the trail for realism.
11. Use the spray paint to color code your blocks and their location along the burlap.
12. For storage/transport, the blocks, trees, grasses, leafy stems, arrows, fake blood/bile, and deer hair can be laid in the
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bottom of a plastic tote. The burlap can be rolled up and laid on top of the other items.

**Instruction tips:**

The outdoor option is best. Only use this roll out blood trail when an outdoor blood trail is not possible (i.e. darkness, inclement weather).

**Step 1- Focus Activity**

Complete the focus activity on page 4.

**Step 2 – Objectives**

State the objective on page 4.

**Step 3 – Teaching Method**

The content for the lesson is the same as presented in the lesson plan for the outdoor station; however, this indoor method is set up with six different stations depicting sign. At the following stations, cover:

Start several feet away from Station 1 – observe reaction of deer; last place they saw it; how long to wait before tracking

Station 1 – blood on the arrow; color of blood; bile on the arrow; use arrow to mark start of trail

Station 2 – blood droplets on leaves; leaves kicked up from running deer

Station 3 – blood may be on vegetation, not just ground; disturbed vegetation; mark trail with flagging

Station 4 – blood isn't the only sign; deer hair, deer tracks, or broken branches can tell of a passing deer

Station 5 – some deer will bed down when injured; pooled blood vs. blood droplets; bumping a bedded deer often results in not finding the deer

Station 6 – how to approach a downed deer; how to check whether deer is dead; how/when to dispatch an alive deer;

tagging a deer

End – how to regain a lost trail; what to do if all sign is lost;  
how long a hunter should search

Note: If your students groups are large, another way to teach this lesson is to break the students up into smaller groups, and have each smaller group stand by an assigned station. Distribute the station cards to each group (Addendum D) and have the students formulate answers to the questions as it pertains to their station. Work your way down the trail having each group answer the questions on the cards.

#### **Step 4 – Student Summary**

Conclude with the student summary on page 7.

#### **Addendum**

**D**



#### **STATION CARDS THAT CAN BE USED WITH THE PORTABLE ROLL OUT DEER TRAIL KIT**

##### **Start**

Immediately after you shoot a deer, what should you do?

How would a compass assist you immediately after you shoot a deer?

How long should you wait before you start tracking the deer?

##### **Station 1 - Arrow**

Does the color of the blood tell you anything?

Does the smell of the arrow tell you anything?

How could you use the arrow to mark where the deer was when you shot?

How might the sign vary due to your hunting implement (i.e. bow/arrow vs. gun)?

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**Station 2 – Leaves**

What could you glean from looking at the leaves?

What could the pattern of the blood tell you?

What does the volume of the blood tell you?

**Station 3 - Vegetation**

How could blood get on the leaves of a plant?

While you are tracking the deer, how might you be able to ensure you remember where you have already tracked the deer?

How might this help you predict where the deer has run?

**Station 4 - Trees**

Is blood the only sign that can tell you where the deer has travelled?

What other signs should you be on the lookout for?

**Station 5 – Bed**

What could it tell you if you found a pool of blood on matted vegetation?

What should you do while tracking if you find matted vegetation with pooled blood?

**Station 6 - Deer**

How should you approach a deer once you find it?

What is the first thing you should do after you've found it?

What should you do if it's still alive? How and when?

If you're certain it is dead, what is the first thing you should do?

**End**

What should you do if you lose sign while tracking?

What tactic should you employ if you still can't find the animal?

How long should you continue to search?

Do deer have any tendencies as to where they run after being shot?



## FREQUENTLY ASKED QUESTIONS

1. How soon should you field dress the deer after you shoot it/find it?

*The sooner you can field dress it, the better. Heat is a major factor in meat spoilage, and it is best to cool the animal down as much as possible.*

2. Does the color of the hair you find mean anything?

*Depending on the animal you are hunting, hair color may be a very good sign as to where your shot hit the animal.*

3. How long does it normally take to track a deer?

*This is highly variable depending on shot placement, size of the animal, sex of the animal, time of year, and habitat/terrain. A hunter should be prepared to possibly spend several hours tracking a deer.*

4. What do you do if you bump a deer?

*If while tracking a shot animal, you bump a wounded deer out of its bed, you should quickly and quietly leave the area to keep from disturbing it further. Animals that get up and move are often very difficult to track as they tend to not leave as much sign.*

5. What if you don't find the deer?

*If you do not find the animal, you are not legally obligated to use a tag on it. How long you look for the animal, and whether to use the tag become ethical dilemmas that every hunter has to decide on for themselves.*





# INSTRUCTOR GUIDE

## LESSON 10: BOWHUNTING TIPS & TACTICS

V. 2/2018

### Bowhunter Education 2017 Standards – Sections 1 & 6 Objectives 3, 36, 37, & 39

<p><b><u>Instructor Notes</u></b></p> 	<p>This lesson introduces the students to the fundamental knowledge and skills needed to become a successful bowhunter. This lesson corresponds with Chapter 1 (pgs. 6-9) and Chapter 6 (pgs. 43, 44, 50, &amp; 51) in the Today's Bowhunter student manual. Teach this lesson to the entire class.</p> <p><b>Teaching Methods Used In This Lesson</b></p> <ul style="list-style-type: none"><li>• <b>Lecture</b></li><li>• <b>Discussion</b></li></ul>
<p><b><u>Time Suggested</u></b></p> 	<p>20 Minutes</p>
<p><b><u>Materials Required</u></b></p> 	<ul style="list-style-type: none"><li>• Audio Visual equipment (screen and projector)</li><li>• Laptop with PowerPoint software</li><li>• PowerPoint file: Lesson 10 – Bowhunting Tips &amp; Tactics</li></ul>
<p><b><u>Vocabulary Builder</u></b></p> 	<p>Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.</p>

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**Decoy** – A bird, mammal, or imitation of one used by hunters to attract other birds or mammals.

**Downwind** – Being in a position where the wind blows from an object toward you.

**Glassing** – To use magnifying optics from a hill or vantage point to identify the whereabouts of target animals.

**Stalking** – To pursue, approach or creep up on stealthily.

**Still hunting** – To hunt very slowly and quietly making sure to stop moving every few yards to increase the chance that you spot game prior to game spotting you.

**Upwind** – Being in a position where the wind blows from you toward an object.

## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<p>The purpose of the focus activity is to get everyone's attention focused on the lesson. Ask the students, "how many of you know what type of hunting style you will use when you go afield?"</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p>State the learning objective to the students. "At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"><li>• describe why people want to bow hunt;</li><li>• define hunting the wind;</li><li>• describe at least three methods of bow hunting;</li><li>• and list two decoying techniques that raise safety concerns for a hunter when hunting with or near decoys."</li></ul>
<p><b><u>PART C:</u></b></p> <p><b><u>Teaching Method</u></b></p>  <p>16 minutes</p>	<p>Ask: "what would be one disadvantage to using a bow versus a firearm?" Discuss the following topics:</p> <ol style="list-style-type: none"><li>1. 🖱️ Slide #3 - Ask: "what are some of the reasons why someone would want to bow hunt?" Discuss these motivations:<ul style="list-style-type: none"><li>• Added challenge (e.g. getting closer to game; movement of drawing)</li><li>• Extended seasons (e.g. early archery-only season)</li><li>• Getting outdoors at different times of the year</li><li>• Gaining access to more areas<ul style="list-style-type: none"><li>○ properties only open to bowhunting (e.g. state park)</li><li>○ areas with discharge restrictions (e.g. properties; roads)</li></ul></li></ul></li></ol>

- bowhunting more accepted by landowners
- Comradery with family and friends

2. 🖱️ Slide #4 - Discuss the most common hunting methods for bowhunters:

- Spot and stalk
  - identify an animal at a distance
  - sneak closely without being noticed
- 🖱️ Slide #5 - Still hunting
  - slipping through the woods quietly
  - move slow enough to observe game before they observe you
- 🖱️ Slide #6 - Elevated stands
  - treestands and/or box blinds
- 🖱️ Slide #7 - Ground blinds
  - commercial blinds (pop-up blinds)
  - brush blinds

3. 🖱️ Slide #8 - Discuss the importance of practicing with the equipment that will be used while hunting:

- Practice shooting from a treestand
- Practice shooting from a seated position
- Participate in 3D archery shoots
- Practice shooting with your hunting clothes on

4. 🖱️ Slide #9 - Ask: “what importance does wind play while hunting?” Discuss the importance of trying to stay downwind of game or areas where game is expected.

- Keeping the wind in a direction that does not blow towards game, or the direction the hunter is traveling, is essential to remaining undetected
- Prevailing wind
  - knowing what direction the wind most commonly comes from helps a hunter identify where to place stands/blinds

- 🖱️ Slide #10 - Thermals affect wind patterns
    - daytime heat will cause air to rise and thus the wind will move uphill
    - air cools in the evening or waning daylight thus the wind will move downhill
  - 🖱️ Slide #11 - Methods of wind detection
    - windcheck powder
    - natural plant tinder (e.g. milkweed)
    - ribbons
5. 🖱️ Slide #12 - Discuss the advantages and potential hazards of using decoys while hunting:
- Advantages
    - calm the animal
    - bring animal closer
    - give animal something to focus on
  - Hazards
    - attaching decoy to themselves or using it to conceal themselves while sneaking up on game could create a situation where a hunter may mistake the decoy for a live animal
    - carrying decoys without some type of safety bag or hunter orange covering could create a situation where a hunter may mistake the decoy for a live animal

**PART D:**

**Student  
Summary**



2 minutes

Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.

- What direction will wind generally travel when the air is warming in the morning?

- What advantage does a hunter gain by being downwind of an animal?
- What is the best way to carry a decoy into the woods?
- What is the most common hunting style used in open terrain?

**END OF LESSON**

**Addendum**

**A**



**FREQUENTLY ASKED QUESTIONS**

1. Is any particular method better than the other?  
*This answer is primarily personal preference. Discuss the pros and cons of each method so that the students can determine which method is right for them.*

**Addendum**

**B**



**POWER POINT SLIDES FOR LESSON 10**

**Slide #1**



**Bow Hunting Tips and Tactics**

Lesson 10

## Slide #2

### At the end of this lesson you will be able to:

- describe why people want to bow hunting
- define hunting the wind
- describe at least three methods of bow hunting
- and list two decoying techniques that raise safety concerns for a hunter when hunting with or near decoys

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## Slide #3

What are some of the disadvantages of using archery gear versus a firearm?

What are some of the reasons why someone would want to bow hunt?

- Added challenge
- Extended seasons
- Getting outdoors at different times of the year
- Gaining access to more area
  - properties only open to bowhunting (e.g. state park)
  - areas with discharge restrictions
  - Bowhunting is often more accepted by landowners



MASSWILDLIFE

Slide #4

## Common Bow Hunting Methods

### Spot and Stalk

- identify an animal at a distance
- attempt to sneak within your effective range without being noticed

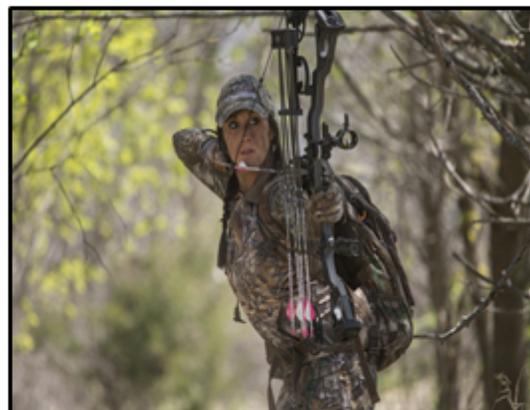


MASSWILDLIFE

Slide #5

## Still Hunting

- Slipping through the terrain quietly
- Moving slow enough to observe game before they observe you

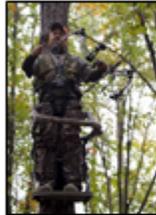


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Slide #6

## Elevated Stands

Treestands



Box Blinds



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Slide #7

## Ground Blinds

Commercial Blinds  
(pop-up blinds)



Brush Blinds/Natural Blinds



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Slide #8

## Why is it important to practice with the equipment you will be using?

- Practice shooting from a treestand
- Practice shooting from a seated position
- Practice in 3D archery shoots
- Practice shooting with your hunting clothes on



MASSWILDLIFE

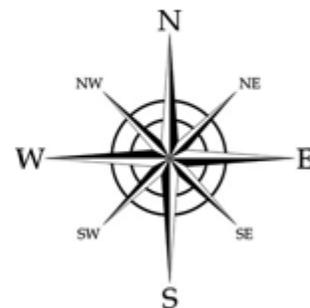
Slide #9

## WIND

What importance does the wind play while hunting?

### Prevailing Winds

- Knowing what direction the wind most commonly comes from helps a hunter identify where to place stands/blinds in advance of the hunt
- The prevailing winds in the Northeastern United States is West-Southwest



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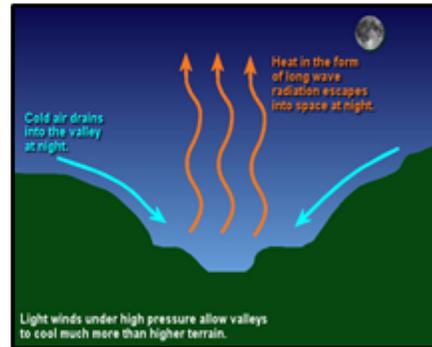
Slide #10

## Thermal Winds

Thermals are winds created by the heating and cooling of air temperature

As air temperature starts to increase, the heat will cause the air to rise thus the wind will move uphill

Air cools in the evening or waning daylight thus the wind will move downhill



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Slide #11

## Wind Detection Methods

Windcheck Powder



Natural plant tinder



Ribbon



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Slide #12

## Decoys

### Advantages

- Calm the animal
- Bring animals closer
- Give animal something to focus on



### Hazards

- Mistaken for live animals by other hunters
- Never attach a decoy to your person or use a decoy to conceal yourself



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Slide #13

Questions???

MASSWILDLIFE



# INSTRUCTOR GUIDE

## LESSON 11: GAME CARE

V.2/2018

### Bowhunter Education 2017 Standards – Section 7

#### Objective 41

<p><b><u>Instructor Notes</u></b></p> 	<p>This lesson introduces the students to the knowledge and skills needed to properly and legally care for harvested game. This lesson corresponds with Chapter 7 (pgs. 63 &amp; 64) in the Today’s Bowhunter student manual. Teach this lesson to the entire class.</p> <p><b>Teaching Methods Used In This Lesson</b></p> <ul style="list-style-type: none"><li>• <b>Lecture</b></li><li>• <b>Discussion</b></li></ul> <div data-bbox="402 1150 1416 1331" style="border: 1px solid black; padding: 5px;"><p>Note: This lesson can utilize HE Tools (  ) software as a teaching aid. See Addendums A &amp; B for helpful hints on software navigation.</p></div>
<p><b><u>Time Suggested</u></b></p> 	<p>30 Minutes</p>
<p><b><u>Materials Required</u></b></p> 	<ul style="list-style-type: none"><li>• Audio visual equipment (DVD player, projector &amp; screen)</li><li>• “Game Care” DVD</li></ul>

	<ul style="list-style-type: none"> <li>• White board/easel</li> </ul>
<p><b><u>Station Set-up</u></b>    10 minutes</p>	<ol style="list-style-type: none"> <li>1. Set up the AV equipment with the “Game Care” DVD. Start the DVD and pause the video when the title screen appears. Cover the projector lens until you are ready to show the video so that students are not distracted by the screen and they can focus their attention on you.</li> <li>2. Set up the white board in the front of the room to the side of the screen. Write “Game Care” on the top of the board.</li> </ol>
<p><b><u>Vocabulary Builder</u></b>  </p>	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p>Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.</p> </div> <p><b>Field dressing</b> – The act of removing the internal organs of a game animal while still in the woods.</p> <p><b>Spoilage</b> – Inedible meat as a result of improper care.</p>

## LESSON PLAN

<p><b><u>PART A:</u></b></p> <p><b><u>Focus Activity</u></b></p>  <p>1 minute</p>	<p>The purpose of the focus activity is to get everyone focused on the lesson. Ask: “do any of you plan on processing your own animals?” Discuss some of the advantages of processing their own game (i.e. assurance they are receiving their meat; getting the cuts of meat they want; ability to leave as much or as little fat as they want; more economical).</p>
<p><b><u>PART B:</u></b></p> <p><b><u>Objectives</u></b></p>  <p>1 minute</p>	<p>State the learning objectives to the students. “At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"> <li>• describe how to properly and legally care for harvested game and be aware of broadheads that may still remain in game while field dressing</li> </ul>
<p><b><u>PART C:</u></b></p> <p><b><u>Teaching Method</u></b></p>  <p>25 minutes</p>	<p>Ask: “what is the first thing a hunter should do once they determine that the animal is dead?” (<i>tag the animal</i>) Ask: “once you have met all legal requirements, what is the next thing you should do, and when should you do it?” (<i>field dress the animal as soon as possible</i>)</p> <ol style="list-style-type: none"> <li>1. Discuss the importance of time, and that killing an animal requires a large time commitment, and that they should expect to spend several hours taking care of their harvest.</li> <li>2. Introduce the video they are about to watch by explaining that the video covers the steps a hunter takes from the moment they kill a deer until it is processed and in the freezer. Inform them however that these steps are the same for any big game animal, and the general premise is the same for birds and other small game. Give them a</li> </ol>

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warning that the video does contain some graphic images.

3. Play the “Game Care” DVD. It has a run time of 9 minutes and 15 seconds.
4. Following the video, reiterate the key points of the video: Ask: “what are the three factors that lead to meat spoilage?” (*dirt, heat, moisture*) Write these on the whiteboard as they get them. Explain to the students that they have a responsibility as a hunter to prevent spoilage of the meat and cover how each contributes to spoilage:
  - Dirt
    - dirt harbors bacteria
    - discuss how to prevent dirt from getting on the meat while dragging the deer out of the woods
  - Moisture
    - moisture allows bacteria growth
    - discuss how to avoid moisture on the meat
  - Heat
    - explain how bacteria multiply at different rates at different temperatures (you may use HE Tools ( here if you wish)
    - discuss tips on avoiding heat
5. Ask: “what hunting accessories should a hunter bring along with them to be prepared for taking care of a harvested animal?” Write their answers down on the whiteboard as they say them.
  - Discuss the importance of having each of the items when hunting
  - Discuss any other items that you use for game care while hunting
6. Reiterate that everything you/they have discussed is in terms of big game animals, but the importance of proper

	<p>game care is the same no matter what animal they intend to harvest.</p> <ul style="list-style-type: none"> <li>• Birds can be plucked, skinned, or breasted</li> <li>• Preventing dirt, heat, and moisture still applies</li> <li>• Sometimes there are legal restrictions as to what you can do in the field (<i>waterfowl</i>)</li> </ul> <p>Students are not being tested at this stage; they are gaining new knowledge. Your role as the instructor is that of a facilitator/coach to help the students learn the material.</p>
<p><b><u>PART D:</u></b></p> <p><b><u>Student Summary</u></b></p>  <p>3 minutes</p>	<p>Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.</p> <ul style="list-style-type: none"> <li>• What three factors lead to meat spoilage?</li> <li>• How soon should you field dress the animal?</li> </ul> <p><b>END OF LESSON</b></p>
<p><b><u>Additional Instructor Notes</u></b></p> 	<p>There is a section in () HE Tools (Topic “Game Care &amp; Cleaning”; Subtopic “Safe Handling of Meat”) that shows bacteria multiplication rates at different temperatures. You may use this visual aid to help explain the importance of cooling game meat quickly.</p>

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## Addendum

A



## HE TOOLS HELPFUL HINTS – Navigation & Use

HE Tools™ is a collection of interactive animations and video demonstrations that help Hunter Education instructors convey important content related to the basic hunter education course. These visual tools enhance the learning experience for students.

### **Navigation**

- Use the MAIN (or MENU in 2011 version) button on any page, at any time, to return to the main menu.
- Use the BACK button at any time to return to the previous page.

### **Animation Control**

Many pages within HE Tools allow interactive navigation. You can use the ARROW KEYS on the keyboard to move forward and backward through the animations, frame by frame.

- press RIGHT ARROW KEY – moves forward one frame
- hold RIGHT ARROW KEY – fast forward
- press LEFT ARROW KEY – moves backward one frame
- hold LEFT ARROW KEY – fast reverse

The benefit of this is that you can show animations very slowly (e.g. how the firing pin hits the primer) or back up and play animations several times until the students understand the concept. When you are finished and wish to continue the animation normally, just click on the RESUME ANIMATION button or other available buttons on the screen.

**Addendum**

**B**



**HE TOOLS HELPFUL HINTS – Game Care**

**Safe Handling of Meat** – Use HE Tools (Topic “Game Care & Cleaning”; Subtopic “Safe Handling of Meat”) to show how heat affects the multiplication rates of bacteria. Click through the slideshow to show the typical animal body temperatures, how fast bacteria can multiply under ideal temperatures, and how the multiplication rate decreases at reduced temperatures.

**Addendum**

**C**



**FREQUENTLY ASKED QUESTIONS**

1. Does it matter whether or not you let your deer hang?  
*Letting your animal hang, or “age”, is not a critical task. Many people do this as they feel it lets the meat tenderize and become more flavorful, but it does not have to be done.*
2. Do people really eat the heart and liver?  
*Yes, many people will eat the heart and the liver. The heart is not an organ, it is a muscle, just like any other meat off of an animal. However, the liver is an organ and its main purpose is to cleanse the body of its toxins. Many states suggest that the liver no longer be consumed due to potential mercury contamination.*
3. Should you eat a deer if you think it has Chronic Wasting Disease?  
*If you truly believe a deer has CWD, you should contact the state agency to see if they want it for testing. Currently there isn’t any confirmed evidence of a human becoming ill after consuming a deer with CWD.*

