

EXPLORE
B O W H U N T I N G

CURRICULUM BOOK

Second Edition



www.archerytrade.org

EXPLORE BOWHUNTING

TABLE OF CONTENTS

 ACTIVITY 1	IT'S ALL IN THE CHALLENGE 9 <i>Build a blind and play a game to realize how blinds can help people get close to wildlife, and begin to think critically about how to ensure success while hunting with bow and arrow.</i>
 ACTIVITY 2	THE TOTAL SET UP 14 <i>Introduce basic bowhunting equipment.</i>
 ACTIVITY 3	CAMO HIDE AND SEEK 23 <i>Use camouflage to hide from other students and find out how easily movement can give away someone's location.</i>
 ACTIVITY 4	YOU CAN'T GET ANY CLOSER THAN THAT! 35 <i>Play a game that requires students to quietly walk up on another student. Perfect this important skill for hunting.</i>
 ACTIVITY 5	POINTS TO CONSIDER. 37 <i>Students identify and interpret animal tracks and signs.</i>
 ACTIVITY 6	DOWN WIND 47 <i>Students learn the importance of wind direction.</i>
 ACTIVITY 7	LURE IN YOUR TARGET. 51 <i>Attract animals into an area using different lures and scents. Gain more experience identifying animal tracks.</i>
 ACTIVITY 8	DON'T CALL BLIND 57 <i>Play a game using the calls of wild turkeys to learn how these birds use their sounds to communicate.</i>
 ACTIVITY 9	THE WHITE'S TALE: LEARNING FROM THE GAME 60 <i>Learn the ecology of white-tailed deer through a fun and interactive board game.</i>
 ACTIVITY 10	MAP IT OUT 65 <i>Map your daily movements to see if there is a pattern, and learn how this correlates to tracking animals and scouting areas to hunt.</i>
 ACTIVITY 11	CREATE A SHOOTING LANE 69 <i>Create a clear path between you and a target.</i>
 ACTIVITY 12	BUILD YOUR SHOT OPPORTUNITY 72 <i>Apply your knowledge and skills to place a ground blind or tree stand.</i>
 ACTIVITY 13	RANGING YOUR GAME 77 <i>Measure the length of your stride to help measure distances more accurately in the field. Test your abilities by estimating distances by sight and using a range-finder.</i>

TABLE OF CONTENTS *Continued*

ACTIVITY 14	GLASSING FOR GAME 81 <i>Use binoculars to learn how to locate animals from a distance.</i>
ACTIVITY 15	SCORE BIG 84 <i>Have a calling competition to learn how to use calls to lure animals into range.</i>
ACTIVITY 16	PLAN FOR SUCCESS 88 <i>Follow a hunt plan to find a bowhunter in the woods.</i>
ACTIVITY 17	ADRENALINE AND THE HUNT 93 <i>Play a game to learn how adrenaline can affect your ability to function when hunting.</i>
ACTIVITY 18	HUNTING TAKES GUTS 96 <i>Build a box deer to learn the anatomy of game animals to improve shot placement accuracy and field dressing.</i>
ACTIVITY 19	SHOT PLACEMENT 110 <i>Students get a chance to practice good shot placement and learn how to “read” arrows after the shot.</i>
ACTIVITY 20	HERE’S CONCRETE EVIDENCE 116 <i>Students mark and follow a blood trail using flagging to find an animal.</i>
ACTIVITY 21	MAKING AN IMPRESSION 120 <i>Write a script to ask a landowner if you can hunt their property. Students rate each other’s presentations.</i>
ACTIVITY 22	CLOSING IN 122 <i>Plan and execute an undetectable route to an animal (student).</i>
ACTIVITY 23	ARCHERY CHALLENGE COURSE 133 <i>Compete in an archery challenge course that simulates real-world hunting situations.</i>
APPENDIX A	APPENDIX A 146 <i>Reading Enrichments for Students</i>
APPENDIX B	APPENDIX B 147 <i>Field Dressing Checklist</i>
APPENDIX C	APPENDIX C 148 <i>Step-by-Step Guide to Field Dressing a Deer</i>
APPENDIX D	APPENDIX D 150 <i>Noxious Plants</i>
GLOSSARY G	GLOSSARY 151

DOWN WIND

ACTIVITY
6

ACTIVITY SNAPSHOT

Students learn the importance of wind direction.

ACTIVITY TIME

45 minutes



WHAT YOU NEED

- Baby powder or cornstarch
- Strong scent, air freshener, or strong smelling food such as beef jerky, an onion or an orange
- A fan
- Extension cord
- Bubbles

GEAR UP

It has been said that dogs can smell 100 times better than humans. In particular, bloodhounds can smell 300 times better than people. Even more astonishing, black bears can smell seven times better than bloodhounds, meaning that black bears can smell 2,100 times better than people. With odds like these, we need all the help we can get when trying to get close to wildlife. To stay out of sight of animals we're pursuing, we must stay hidden by being quiet, scent-free and camouflaged.

This activity teaches students how animals can smell them from long distances, and how the wind can help make or break your day.

TALKING POINTS

An animal's sense of smell is well developed. Animals use odors to detect danger and communicate information to each other. Their odor-detecting defense allows prey animals to smell predators and potential dangers in time to escape. Likewise, many predators use their nose to locate prey animals to hunt and eat.

Wind direction plays a major role in animals taking advantage of their sense of smell. An animal can smell something from a distance when the odor is carried to it by wind. Wind carries odors over a broad area and, in optimal wind conditions, some animals can smell odors more than three miles away.

Hunters always strive to be "downwind" of animals when on stand, stalking or still-hunting. The word "downwind" means the wind is carrying scents "down" to you from the animal. As a result, the same wind carries your odor away from the animal if you're downwind from it. In contrast, if the hunter is "upwind" of the animal, the hunter's scent is carried "down" to the animal, which alerts it to danger and makes it flee or hide. To sum up, if you are upwind from an animal, it will smell you. If you are downwind from an animal, it cannot smell you. Whenever possible, hunters position themselves to face or stalk into the wind, which keeps them downwind of the animal they're hunting.

Hunter that is downwind.
Notice the hunters scent
is being carried away from
the animals.



Hunter that is upwind.
Notice the hunters scent
being carried to the animals
and they are alerted to the
hunter's presence.



Illustrations by Ryan Kirby

When trying to get close to wildlife by sitting in a blind or tree stand, having wind is better than no wind. If the air just sits around you, your odor will just sit there too. That allows animals to smell you as they approach your area.

GETTING READY

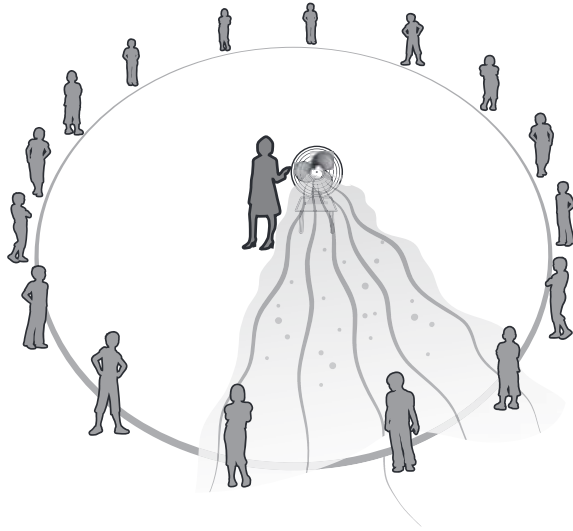
Find an open area outside where you can set up a fan.

Educator's Note: If you have a good, steady wind, you do not need a fan. Just place students so the wind is blowing in the direction you need it.

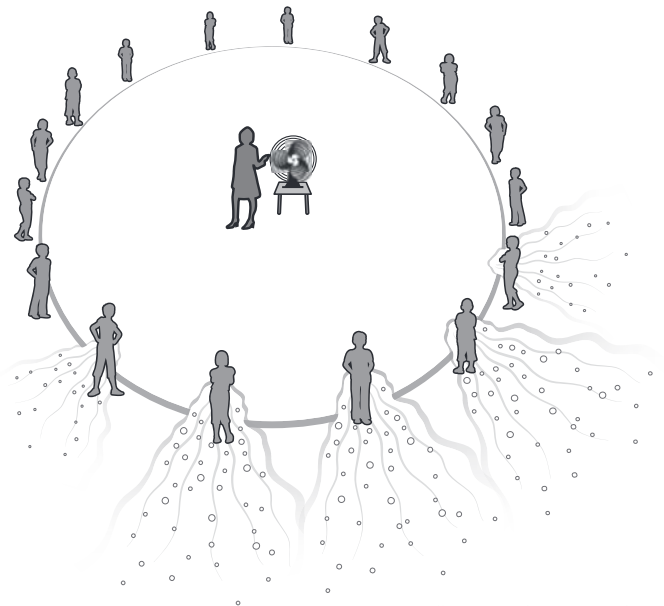
LET'S GET STARTED

- 1 Discuss and define the difference between downwind and upwind, and the importance of wind direction when trying to get close to wildlife.
- 2 Take the class outside.
- 3 Set up the fan next you, facing in any direction.
- 4 Have students get in a circle around you, about 15 to 20 feet (5 to 7 yards) away.
- 5 Have students close their eyes. Spray or place the food item into the fan. Have students raise their hands when they smell it.
- 6 Have students open their eyes. Did all students smell the odor? Which students were downwind? Did they smell it? Which students were upwind? Did they smell it?
- 7 Next, coat students' hands with cornstarch or baby powder.
- 8 Turn the fan on and face it so it's blowing toward the students. Spread the students apart and have them clap their hands.
- 9 Discuss what happened to the powder:
 - Did the powder blow in the same direction from everyone's hands?
 - What does that tell you about wind direction?
- 10 Now, line students up single-file, spacing them out so the line goes at least 30 yards (90 feet).
- 11 Mark the line at 5, 10, 15, 20, 25, and 30 yards.
- 12 Set up the fan next to you but don't turn it on yet. Stand about 10 feet away from the front of the line.
- 13 At the front of the line spray or hold the food up. Have the students who can smell the odor raise their hands. Mark the distance the odor traveled.

Students smelling scent.



Students watching powder disperse.



Illustrations by Ryan Kirby

Educator's Note: Allow 1 to 2 minutes between sprayings to allow the scents to dissipate.

- 14 Turn the fan on and face it away from the students. Spray or place the food item into the fan and have the students who can smell it raise their hands. Mark the distance the odor traveled.
- 15 Turn the fan so it faces the line of students. Spray or place the food item into the fan again and have the students who can smell it raise their hands. Mark the distance the odor traveled. Compare the distance the odor traveled in all three situations (no wind, downwind, and upwind).
- 16 Now do the same thing with bubbles. Blow the bubbles into the fan facing away from students, facing students and with no fan at all. Now the students can see where the scent is going.
- 17 Also blow bubbles in the direction of a large vehicle or small building. Notice how the air goes around the obstructions. A scent will also go around objects.
- 18 Coat student's hands with cornstarch or baby powder again.
- 19 Spread the students apart and have them clap their hands without a fan. (Do this indoors if it's windy outside).
- 20 Discuss what happened to the powder:
 - Did the powder blow in the same direction from everyone's hands?
 - What does that tell you about the wind direction?

ENRICHMENTS

- 1 Divide the students into teams of three or four. Have each team take a different scent and determine:
 - What direction the wind is blowing.
 - How far the scent traveled.
 - What would be the best direction to approach an animal from that day?
- 2 Set the fan to different settings and space the students out farther. Does the scent travel farther or faster based on wind strength?

DISCUSSION QUESTIONS

- 1 How far could you smell the scent with no fan (wind)?
- 2 How far could you smell the scent with the fan blowing toward the students?
- 3 How many students could smell the scent with the fan blowing away from them?
- 4 How far could you smell the scent with the fan blowing away from students?
- 5 Did the fan or wind direction make a difference in the number of students who could smell the scent? Why or why not?
- 6 Why is it important to know which direction the wind is blowing when stalking an animal? *Answer: You want to remain downwind at all times so the animal does not pick up your scent.*
- 7 Would wind strength make a difference in how far scent travels? *Answer: Yes, the stronger the wind, the faster and farther a scent will travel. However, strong winds also dissipate scent faster, and make it more difficult for predators and prey to pinpoint its source.*

DON'T CALL BLIND

ACTIVITY
8

ACTIVITY SNAPSHOT

Play a game using the calls of wild turkeys to learn how these birds use their sounds to communicate.

ACTIVITY TIME

45 minutes



WHAT YOU NEED

- CD player
- Turkey Call CD in Media Packet
- Small stickers or pieces of paper

GEAR UP

When animals communicate, they share information with each other. Dragonflies send data visually through aerial displays. Mammals rely heavily on their sense of smell (see Activity 7, Lure in Your Target). And turkeys, whose sense of smell is limited, rely more on their senses of sight and hearing. Animals communicate with their own species and to other species by using sound, sight, smell, taste and even electrical signals.

In this activity, students play a game that teaches various wild turkey calls, and how people can use those calls to draw turkeys closer to them.

TALKING POINTS

Birds have an amazing variety of songs, calls and other vocalizations that help them communicate with each other, their mates and other species. These sounds can travel long distances, be heard in the dark, and go through or around visual barriers such as trees, plants or houses.

Wild turkeys make more than two dozen unique calls. For example, the gobble call that many people associate with turkeys is made only by males to attract females. However, male and female turkeys make a range of other calls. Here's a list of some calls turkeys make and what they mean:

- 1 **Purring.** Purring is a soft, rolling call turkeys make when content. It can usually be heard by feeding birds. It is not loud, but it's good for reassuring turkeys as they near your position. It means "Everything's OK."
- 2 **Kee-Kee Run.** The kee-kee run is the call of lost young turkeys (which are called poults). Variations of this call are also made by adult birds. It's often heard in autumn. It means "I need you."
- 3 **Cluck.** The cluck consists of one or more short, staccato notes. The plain cluck includes two or three single-note clucks. It's generally used by one bird to get another's attention. A hunter can use a cluck call to reassure an approaching gobbler a hen awaits him.

- 4 **Yelp.** The adult hen yelp is a series of loud calls that orders her flock or young poults to assemble. It means “Come here and gather up!”
- 5 **Gobble.** The gobble is one of the principal vocalizations of male turkeys and is used primarily in spring to let hens know he’s near and available.
- 6 **Putt.** The putt is a one-note alarm call. It can also be several sharp notes in rapid fashion, which usually means a turkey has seen or heard something that means “Danger!”
- 7 **Cluck and Purr.** The cluck and purr call is what you’ll hear in a flock when the birds are content. It is a cluck followed by a rolling, almost staccato call.

Educator’s Note: It’s important to tell your students not to use a gobble call to lure male or female turkeys when hunting, because other hunters might mistake them for a real turkey.

Hunters can use calls to draw turkeys closer to them. However, many turkey sounds are seasonal, and responses to specific calls vary by the season. Young turkeys respond well to the kee-kee run call. Since young turkeys are only present in autumn, calls aimed at poults, like the kee-kee run, only make sense during fall hunts.

Learning more about the natural history of turkeys, including their life cycle, can help you understand what each call means and when it makes sense to use one call instead of another. Knowing how to use these vocalizations can help bring prey closer to you.

GETTING READY

Locate a large space inside or outside that has electricity for a CD player.

LET’S GET STARTED

- 1 Explain to your students that they are going to play a game to learn more about how turkeys communicate, and why that matters when bowhunting or trying to get closer to these wild birds.
- 2 Ask your students how birds communicate. Male bird songs are often used to impress females. However, birds also make sounds like chirps and warnings. Different calls and sounds have different meanings.
- 3 Teach students the different turkey calls. Play the turkey calls on the CD. Use Section 1 of the CD, which gives a description of the call and then plays the call.
- 4 To reinforce the calls, quiz students on the different vocalizations and their meanings. Use Section 2 of the CD, which gives a call and then the description. Once students are proficient at recognizing the calls, move on to the game.
- 5 Divide your class into two groups. One group is going to be Toms (male turkeys) and the other group is going to be Hens (female turkeys). Girls do not need to be Hens and boys do not need to be Toms. Mix and match, depending on your class.
- 6 Line up the Toms on one side and Hens on the other. Both sides should face each other.
- 7 Begin by explaining what they should do when they hear a certain call. Here are the moves:
 - Purring: Hens move to the Toms’ side.
 - Kee-Kee Run: Everyone yells “Here!”
 - Cluck: Toms move to the Hens’ side.
 - Yelp: Everyone moves to the middle.
 - Gobble: Everyone goes to the middle and finds a partner. Hens partner with a Tom and Toms partner with a Hen.
 - Putt: Everyone scatters.

- 8 Review the calls one more time to ensure everyone understands what to do.
- 9 Students who make the wrong move when hearing a call or who do not pair up during the gobble call are ruled out.
- 10 Play several rounds of the game using Section 3 of the CD that only plays the calls. Play the calls in whatever order you want. Stop the CD after each call to give students time to respond.
- 11 Play until at least two students are out and everyone seems to recognize the calls and do the right moves. Next, add a dimension to the game.
- 12 Mark students who were out with a sticker on the inside of their hand. (Don't make the mark obvious.) These students are now the hunters, but don't tell any of the students.
- 13 Without revealing that "hunters" are in their midst, announce that everyone is back in the game.
- 14 Play the game again. When students hear the gobble call, they need to pair up. Once the pairs are established, have students show their hands to reveal the mark. Those who pair with a hunter are considered bagged and out of the game. (The hidden hand sticker identifies which players are hunters and who is out.)
- 15 Periodically, reintroduce students who are out. Make some hunters and some turkeys. Change up who are hunters so students don't know who is who.
- 16 Continue the game and watch what happens. The remaining "turkeys" suddenly become wary. It becomes increasingly difficult to get students to pair up because they don't want to be removed from the game.

Educator's Note: Students should become wary of pairing with each other when they realize another student could be a hunter. This is a natural response. Wild turkeys also become wary of calls they hear and do not always respond to imitated calls.

DISCUSSION QUESTIONS

- 1 As a hunter, what call, if any, would you use to keep turkeys near you? *Answer: Purring or cluck.*
- 2 As a hunter, what call, if any, would you never use? *Answer: Putt.*
- 3 What call would you use to draw a male turkey closer to you? *Answer: Cluck.*
- 4 How could using calls make you a more successful hunter? *Answer: It will help draw animals closer to you, increasing your chances of having a shot within range.*
- 5 Do you think the time of year could affect which call you use? If yes, which calls would you use in the spring? Fall? *Answer: Yes, in spring use the Cluck call to draw a Gobbler closer to you. In fall use the Yelp or Kee-kee run because young turkeys are present.*

EDUCATOR'S RESOURCES

- 1 The National Wild Turkey Federation (NWTf) provided the calls and most of the descriptions. Learn more about wild turkeys and NWTf at www.nwtf.org.
- 2 The Wisconsin Department of Natural Resources has a full description of wild-turkey calls at <http://dnr.wi.gov/org/caer/ce/EEK/nature/trkyhunt.htm>