

Environmental & Natural Resources

Rule years 2026–2029 · Revision 1 · Published October 9, 2026

0. General Rules & Eligibility

Career Development Events are governed by the NAEA CDE Committee. All events follow [CDE General Rules and Eligibility](#).

Qualification for this event

District qualification	Top 33% of schools per district
Students per team	4
Grades	9–12
National qualifying event?	Yes
Timeframe	FFA Convention
Host	UNL School of Natural Resources
Event Superintendent	Dr. Andrew Little

1. Overview

The Nebraska Environmental and Natural Resources CDE provides individuals with the basic knowledge and skills needed to pursue career opportunities in wildlife, ecosystems, soil, water, and waste management.

Agricultural Education courses that may align with the Environmental and Natural Resources CDE include Introduction to Agriculture, Food, and Natural Resources; Environmental and Natural Resources; Natural Resources and Ecology; Environmental and Natural Resources Management; and Wildlife Management.

Objectives

Team Activity Objectives (objectives applied to rotating themes)

- Apply knowledge of land capability class, soil classification, and physical properties such as: structure, permeability, and slope.
- Read, find information, and use data from a soil survey (online version printed to hard copy or book) in a given scenario.
- Using specific data and waste allowances as related to surface and groundwater and soil nutrients such as phosphorus, nitrates, nitrites, and pH, select the best solution to a given scenario.
- Understand how to run and read the following tests for water quality: nitrites, dissolved oxygen, nitrates, pH, phosphates, water hardness, chlorine, ammonia, and the current temperature.
- Make decisions about habitat suitability, including suggestions for how the habitat can be improved, given information about specific species' habitat requirements.

Individual Objectives (multiple-choice test of 75 questions and 25 species identification questions)

- Explain the hydrologic cycle and how water moves through the cycle.
- Interpret the nitrogen cycle.
- Apply knowledge of land capability class, soil classification, and physical properties such as structure, texture, permeability, and slope while correctly using soil vocabulary.

- Apply knowledge of waste management as it relates to surface and groundwater and soil nutrients such as phosphorus, nitrates, nitrites, and pH.
- Identify the tracks, pelts, scat, photos, and other identifiers of a variety of plant and animal species found in Nebraska.
- Identify invasive species and explain how they affect the natural environment.
- Describe climate effects on agriculture, water, and wildlife.
- Analyze private land conservation scenarios to develop solutions that increase conservation while remaining profitable.

2. Eligibility & Team

Open to students in Grades 9–12. Teams are 4 students. Top 33% of schools per district advance. This event is national-qualifying.

- Schools must register 4 students with all 4 individual scores making up the team score. Teams with less than 4 students may participate but will not be eligible to earn all points (0 points earned for missing member).

3. What to Bring

Attire

- It's recommended that FFA members wear Official FFA Dress. Non-FFA members should wear professional dress.

Supplies

- A pencil
- NOTE: **no electronic devices** of any kind including cell phones, laptop computers, tablets (e.g., iPads) will be allowed during the duration of this event.

4. Event Format

Timing

- See the [CDE schedule](#) on the Nebraska CDEs website for specific times for each school based on its agricultural education district.
- Some participants will complete the individual activities first, then the team activities. The other participants will complete the team activities first, then the individual activities.
- During the scheduled time, each team will participate in 2 rotations of 45 minutes each, including:
 - Individual Activities: 35 minutes for the exam + 10 minutes for identification
 - Team Activity: 45 minute rotation
- Late teams can participate, but must end at the designated time. They will only be able to complete whichever section still remaining (ie. a team arriving after the rotation **cannot** complete whichever section they would have done in the first half).

Format

Theme / Annual Topics

An annual theme is based on the event year:

- Soil & Water: 2028, 2031
- Water & Wildlife: 2026, 2029
- Soil & Wildlife: 2027, 2030

Event Components

The Nebraska Environmental and Natural Resources CDE is a simplified version of the national event. It includes 3 elements:

- An individual multiple-choice test focusing on invasive and native species, habitat management, food webs and ecosystem properties, and soil, water, and waste management.
- Individual Nebraska species identification test using a collection of tracks, pelts, scat, photos, and other identifying factors.
- Team activity on data interpretation and decision-making related to the year's theme.

Individual Exam - 45 minutes:

75 multiple-choice questions exam - 35 minutes

- Individual multiple-choice test focusing on invasive and native species, habitat management, food webs and ecosystem properties, and soil, water, and waste management.

25 species identification exam - 10 minutes

- Individual Nebraska species identification test using a collection of tracks, pelts, scat, photos, and other identifying factors.

Team Activity - 45 minutes:

Team activity on data interpretation and decision-making related to the year's theme.

- Work collectively on given scenarios to identify the best possible solution to the problem, based on their knowledge of environmental and natural resources topics.
- 25 multiple-choice questions.

5. Scoring & Tiebreakers

Individual Scoring

Component	Detail	Points
Written Examination	75 Questions × 2 Points	150
Species Identification	25 Specimens × 2 Points	50
Grand total		200

Individual Tiebreakers

Individual tiebreakers are resolved in this order:

- A. Highest Exam Score
- B. Highest Identification Score
- C. Scores on most difficult individual exam questions (determined by number of all students successful on that question)

Team Scoring

Component	Detail	Points
Sum of Individual Scores	4 Students × 200 Points	800
Team Scenario Activity	25 Questions × 4 Points	100
Grand total		900

Team Tiebreakers

Team tiebreakers are resolved in the order listed below.

- A. Highest Team Activity Score
- B. Highest combined identification score (all 4 team members)
- C. Highest combined scores on most difficult individual exam questions (determined by number of all students successful on that question)

6. Study Resources

Approved study resources

- [UNL CDE Study Materials Folder \(OneDrive\)](#) — Practice materials and examples for this CDE.

Wildlife

- [Nebraska Animals \(Nebraska Game and Parks Commission\)](#) — Game & Parks overviews of Nebraska's birds, insects, mammals, mollusks, reptiles, and amphibians.
- [Wildlife Education Trunks \(Nebraska Game and Parks Commission\)](#) — Free checkout teaching trunks (mammal, bird, prairie, insect, aquatic) with Nebraska pickup locations.

Aquatics

- [Nebraska Fish \(Nebraska Game and Parks Commission\)](#) — Game & Parks guide to 100+ Nebraska fish by category, with ID pages and a downloadable fish key.

Soils

- [Soil Teaching Resources \(National FFA\)](#) — National FFA soil lessons and activities on erosion, soil profiles, quality, and soil health.
- [Soil Conservation Basics \(USDA NRCS\)](#) — NRCS intro to soil conservation and health, with practices and tools like Web Soil Survey.

- [Soil Health Resource Library \(Soil Health Institute\)](#) — Soil Health Institute's searchable library of documents, videos, and links, filterable by topic.

Water

- [Water Management \(Nebraska's Natural Resources Districts\)](#) — How Nebraska's NRDs manage groundwater and surface water, including the Ogallala Aquifer and nitrates.
- [Water Sources \(UNL Water\)](#) — UNL overviews of groundwater, surface water, stormwater, watersheds, and nitrate in Nebraska.
- [Water Teaching Resources \(National FFA\)](#) — National FFA water lessons on water quality, the water cycle, and point vs. nonpoint pollution.

Species Identification

- [Bird Guide \(All About Birds, Cornell Lab of Ornithology\)](#) — Cornell Lab guide: ID and life history for 700+ North American birds with photos, songs, and calls.
- [PLANTS Database \(USDA NRCS\)](#) — USDA database of U.S. plants, searchable by name or traits; profiles with images, maps, and status.
- [Plant Identification Websites \(Identify that Plant\)](#) — Annotated list of ~10 plant ID sites (USDA PLANTS, Va Tech weeds, Wildflower Center); dated ~2017.
- [Nebraska's Invasive Species \(Nebraska Invasive Species Council\)](#) — Profiles of Nebraska's terrestrial and aquatic invasive plants and animals, plus how to report sightings.
- [Amphibians, Turtles & Reptiles of Nebraska \(UNL\)](#) — UNL ID guide to Nebraska's native snakes, turtles, frogs, toads, lizards, and salamanders.

Past Exams

- [Individual Exam and Team Problem \(Example\)](#) — Example individual exam and team problem.
- [National FFA ENR CDE Resources \(Box folder\)](#) — National FFA ENR CDE folder: past tests and practicums with answers, scantron, and event poster.
- [Environmental & Natural Resources page on the Nebraska CDEs website](#) — Past exams and team problems.

7. After the Event

The superintendent will allow 30 minutes at the conclusion of all sections of the event for students and advisors to review the species identification portion of the event.

List of Appendices

- [Appendix A: Species Identification List](#)
- [Appendix B: Sample Scantron Sheets](#)

Appendix A: Species Identification List

A subset of species on the National Competition list found in Nebraska. Used in the ID portion of the test.

EQUIPMENT

- 101. refractometer
- 102. secchi disk
- 103. water meter for physical/
chemical parameters (pH,
conductivity, and/or DO)
- 104. bottom dredges
- 105. fish measuring board
- 106. plankton net
- 107. seines
- 108. sieves
- 109. animal tags/bands
- 110. mammal traps
- 111. snake/reptile stick
- 112. radio telemetry unit
- 113. wind speed meters
- 114. barometer
- 115. abney level
- 116. push probe
- 117. soil auger
- 118. soil color book

Native Species

MAMMALS

- 200. armadillo
- 201. badger
- 202. beaver
- 203. bighorn sheep
- 204. bison
- 205. bobcat
- 206. chipmunk
- 207. cottontail
- 208. coyote
- 209. elk
- 210. fox squirrel
- 211. gray squirrel
- 212. jackrabbit
- 213. mole
- 214. mountain lion
- 215. mule deer
- 216. muskrat
- 217. opossum
- 218. pocket gopher
- 219. porcupine
- 220. prairie dog
- 221. pronghorn
- 222. raccoon

- 223. red fox
- 224. skunk
- 225. whitetail deer
- 226. woodchuck

BIRDS

- 300. bald eagle
- 301. blue jay
- 302. bluebird
- 303. brown thrasher
- 304. Canada goose
- 305. canvasback
- 306. western meadowlark
- 307. Northern cardinal
- 308. Cooper's hawk
- 309. mourning dove
- 310. great blue heron
- 311. great horned owl
- 312. American kestrel
- 313. least tern
- 314. mallard
- 315. osprey
- 316. American white pelican
- 317. purple martin
- 318. Northern bobwhite
- 319. red-tailed hawk
- 320. sandhill crane
- 321. blue-winged teal
- 322. Wood duck
- 323. Burrowing owl
- 324. wild turkey
- 325. American crow

REPTILES/AMPHIBIANS

- 400. Bullsnake
- 401. Coachwhip snake
- 402. Eastern copperhead
- 403. Prairie rattlesnake
- 404. Timber rattlesnake
- 405. Blanding's turtle
- 406. Ornate box turtle
- 407. American bullfrog
- 408. American toad
- 409. Plains Leopard frog
- 410. Northern Prairie Skink
- 411. Western tiger salamander
- 412. black rat snake
- 413. common snapping turtle

- 414. fence lizard
- 415. garter snake
- 416. gray tree frog
- 419. red eared slider
- 420. ring neck snake
- 421. Woodhouse's toad

FISH & OTHER AQUATIC ANIMALS

- 500. blue catfish
- 501. bream/bluegill
- 502. brown trout
- 503. carp
- 504. channel catfish
- 505. clam
- 506. crappie
- 507. crayfish
- 508. flathead catfish
- 509. largemouth bass
- 510. smallmouth bass
- 511. sturgeon
- 512. Paddlefish
- 513. Gizzard shad
- 514. White sucker
- 515. Big buffalo
- 516. Flathead chub
- 517. Striped bass hybrid (wiper)
- 518. Rainbow trout
- 519. walleye
- 520. yellow bullhead catfish

Invasive / Non-Native Species (Established in Nebraska)

PLANTS

- 600. hydrilla
- 601. juniper
- 602. kudzu
- 603. leafy spurge
- 604. purple loosestrife
- 605. Russian olive
- 606. Saltcedar

ANIMALS

- 700. Asiatic clam
- 701. House sparrow
- 702. European starling
- 703. Norway rat
- 704. ring-necked pheasant

Form
A
TEAMS

Environmental & Natural Resources · Rule years 2026–2029 · Revision 1 · Page 7 of 10

Last Name										First Name									
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z

Student ID									
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

Special Codes									
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

Nebraska
Natural Resources CDE
Page 1
v2026.01

Form B INDIVIDUALS

Written Examination																													
1	A	B	C	D	E	11	A	B	C	D	E	21	A	B	C	D	E	31	A	B	C	D	E	41	A	B	C	D	E
2	A	B	C	D	E	12	A	B	C	D	E	22	A	B	C	D	E	32	A	B	C	D	E	42	A	B	C	D	E
3	A	B	C	D	E	13	A	B	C	D	E	23	A	B	C	D	E	33	A	B	C	D	E	43	A	B	C	D	E
4	A	B	C	D	E	14	A	B	C	D	E	24	A	B	C	D	E	34	A	B	C	D	E	44	A	B	C	D	E
5	A	B	C	D	E	15	A	B	C	D	E	25	A	B	C	D	E	35	A	B	C	D	E	45	A	B	C	D	E
6	A	B	C	D	E	16	A	B	C	D	E	26	A	B	C	D	E	36	A	B	C	D	E	46	A	B	C	D	E
7	A	B	C	D	E	17	A	B	C	D	E	27	A	B	C	D	E	37	A	B	C	D	E	47	A	B	C	D	E
8	A	B	C	D	E	18	A	B	C	D	E	28	A	B	C	D	E	38	A	B	C	D	E	48	A	B	C	D	E
9	A	B	C	D	E	19	A	B	C	D	E	29	A	B	C	D	E	39	A	B	C	D	E	49	A	B	C	D	E
10	A	B	C	D	E	20	A	B	C	D	E	30	A	B	C	D	E	40	A	B	C	D	E	50	A	B	C	D	E

Written Examination																	
51	A	B	C	D	E	61	A	B	C	D	E	71	A	B	C	D	E
52	A	B	C	D	E	62	A	B	C	D	E	72	A	B	C	D	E
53	A	B	C	D	E	63	A	B	C	D	E	73	A	B	C	D	E
54	A	B	C	D	E	64	A	B	C	D	E	74	A	B	C	D	E
55	A	B	C	D	E	65	A	B	C	D	E	75	A	B	C	D	E
56	A	B	C	D	E	66	A	B	C	D	E						
57	A	B	C	D	E	67	A	B	C	D	E						
58	A	B	C	D	E	68	A	B	C	D	E						
59	A	B	C	D	E	69	A	B	C	D	E						
60	A	B	C	D	E	70	A	B	C	D	E						

Species Identification																													
1			2			3			4			5			6			7			8			9			10		
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	

Species Identification																													
11			12			13			14			15			16			17			18			19			20		
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	

Species Identification														
21			22			23			24			25		
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

Subcommittee

Standing subcommittee for this event

Name	School / Organization	Role
Danie Brandl	Ralston (High School)	Chair
Dr. Andrew Little	UNL — School of Natural Resources	Superintendent
Danie Brandl	Ralston (High School)	Exec liaison
Stacie Turnbull	UNL	Exec liaison
Boyd Bowder	St. Paul	Member
Juliana Loudon	Overton	Member
Mari Beth Moore	Chadron	Member
Dasie Nichols	Stapleton	Member

What changed — 2026–2029 rev 1 EDITORIAL

October 9, 2026

- First version published on CDE Rules Hub.