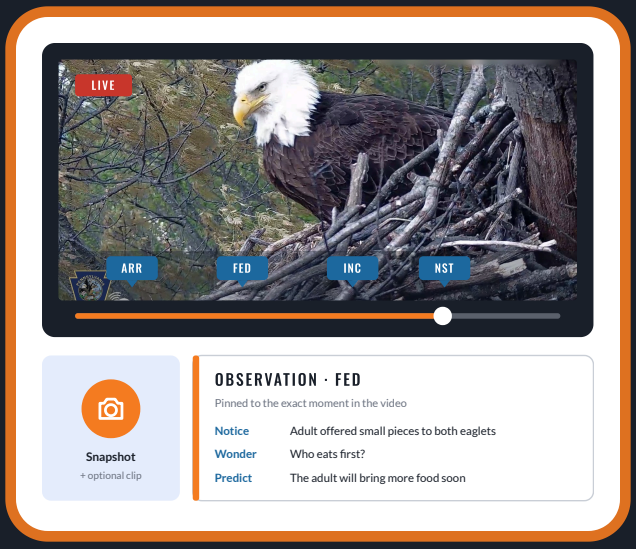
HDONTAP CLASSROOM

EVERY CLASSROOM, A RESEARCH TEAM

LIVE WILDLIFE CAMS FOR REAL CLASSROOM SCIENCE



The student observation screen (illustration), shown with a real frame from the Hanover Eagles cam.

HDOnTap Classroom turns live eagle nest cams into a hands-on science lab. Students watch a real nest, log what they see **pinned to the exact moment in the video**, and build their own class dataset across a **whole nesting season**, with wildlife experts reviewing the key events. It's browser-based, built on the cams HDOnTap already runs, and **free for teachers**.

FREE
for teachers

JAN 2027
pilot, week of January 5

K–8
to start; high school later

NO INSTALLS
designed to run in the browser

INSIDE THIS OVERVIEW

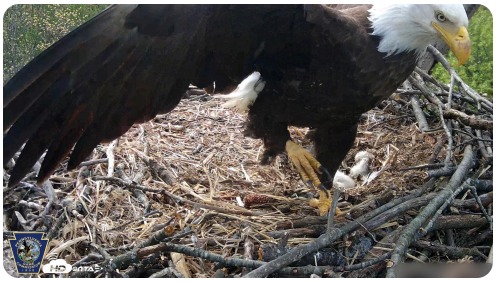
01 WHAT IT IS & WHY IT MATTERS
02 HOW A CLASS USES IT
03 LAUNCH NESTS & CURRICULUM
04 SAFETY & PRIVACY
05 TECHNOLOGY & TIMELINE
06 PARTNER WITH US

WHAT IT IS & WHY IT MATTERS

1 FROM WATCHING WILDLIFE TO STUDYING IT

STUDENTS BECOME THE RESEARCH TEAM ON A REAL NEST

Teachers already put eagle cams on the classroom screen. What they usually get is a raw stream, sometimes with a PDF lesson plan. HDOnTap Classroom adds the missing layer in between: a place where a class **logs observations against the video**, builds a **shared dataset over a whole nesting season**, and sees its work add up with other classrooms and with **real wildlife experts**.



A parent and its eaglets on the Hanover Eagles cam.

NOT JUST A FEW MINUTES

Every observation is saved, so a class keeps a record of what it saw instead of moving on.

WORKS WHEN THE NEST IS QUIET

Animals don't keep a bell schedule. Replay and guided highlights mean a science period is never wasted.

CONNECTED TO SOMETHING BIGGER

What one class notices can be reviewed by experts and add up across schools.

HOW A CLASS USES IT

1. **WATCH** — Live, replay or a guided highlight
2. **TAG** — Tap a behavior code; the video time is saved
3. **DESCRIBE** — Notice, wonder, predict
4. **REVIEW** — Teacher first, then experts for key events
5. **ANALYZE** — Class charts across the whole season

LIVE

What's happening on the nest this minute, for the moments that make a class gasp.

REPLAY

Jump to any point in the recording. Observations stay pinned to the exact video time.

GUIDED HIGHLIGHTS

Curated clip sets, such as a run of feedings or a shift change, so a lesson works even when the nest is quiet.

INSIDE A LESSON

2 OBSERVATIONS THAT COUNT

SIMPLE FOR STUDENTS, BUILT FOR REAL DATA

THE STUDENT OBSERVATION PANEL

Students tap a behavior code. The panel saves the camera, the **exact moment in the footage** and a snapshot, plus an optional 30-second clip and a short **notice / wonder / predict** note. "Not sure" is always a fine answer.

CODE	BEHAVIOR	EXAMPLE STUDENT NOTE
ARR	**Adult arrives or departs**	Adult returned carrying a fish
FED	**Feeding**	Adult fed both eaglets
INC	**Incubating or brooding**	Adult settled over the eggs
NST	**Nest maintenance**	Adult moved sticks and soft lining
MOV	**Eaglet movement**	Chick stood and flapped
OTH	**Other behavior**	Second adult perched nearby
UNK	**Not sure: ask my teacher**	Goes to the teacher's review queue, not a guess

Bald eagle behavior codes: a starting set, being refined with teachers and wildlife experts.

BUILT FOR BUSY TEACHERS

SET UP
Create a class and share a join code or QR code.

ASSIGN
Pick a nest and a mode: a live window, a replay segment or a highlight set.

SHARE
One-click "Share to Google Classroom" on every activity.

REVIEW
Confirm or correct tags in one queue, "not sure" entries first.

ANALYZE
Class charts of behaviors per hour watched, by day, hour and week.

EXPORT
CSV that opens in Sheets or Excel, with watching effort and review status.

The goal: a teacher sets up a lesson in under five minutes. Projector mode puts the nest on the big screen for whole-class sessions, with the join code and a live tally of the class's tags.

EXPERT VALIDATION: CITIZEN SCIENCE DONE RESPONSIBLY

CLASS OBSERVATIONS
Every tag a student makes stays **private to the class**, for learning and teacher review.

→

VALIDATED RESEARCH LAYER
Selected events are classified by several classes. When enough classes agree, or a **moderator** approves, they're promoted. Milestones such as a first egg or a hatch **always** need a moderator.

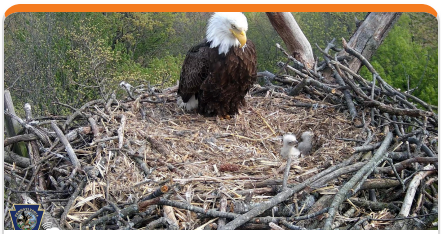
- **Video time, not click time.** Each observation stores the video's own timestamp, because live streams run a little behind real time.
- **Effort counts.** Minutes watched and viewing mode are recorded, so charts show rates per hour: "more feedings" never just means "watched longer."
- **No overclaiming.** Raw student tags are never presented as authoritative monitoring data. Reviewers are HDOnTap staff and, as they join, partner experts.

LAUNCH NESTS & CURRICULUM

3 REAL NESTS, A WHOLE SEASON

EAGLE NESTS ALREADY ON THE HDONTAP NETWORK

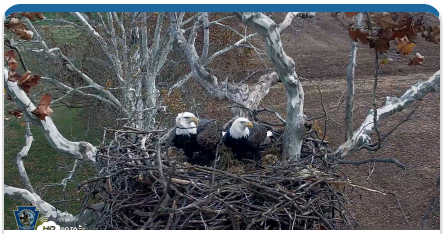
Classroom is organized around **research projects**, not a cam directory. Each project pairs one camera with a species guide, a set of behavior codes, a season timeline and lessons. We're starting with a small group of reliable eagle nests already on the HDOnTap network, plus archived highlights, rather than opening every camera at once.



FLAGSHIP NEST

HANOVER EAGLES

HDOnTap's best-known nest, in Pennsylvania, and the hero of classroom.hdontap.com.



PILOT NEST

PENNSYLVANIA FARM COUNTRY EAGLES

A second bald eagle nest on the HDOnTap network, joining Hanover for the pilot season.

COMING NEXT

MORE NESTS & SPECIES

More HDOnTap eagle nests first, then more species from the HDOnTap network:

OWLS · ELK · BEARS

Photos: frames from the Hanover Eagles and Pennsylvania Farm Country Eagles live cams on hdontap.com.

CURRICULUM AND GRADE FIT

GRADES	WHAT STUDENTS DO
K–2	Identify animals and simple behaviors; tally, draw and describe
3–5	Behavior checklists, journals, a life-cycle timeline, predictions and simple charts
6–8	Systematic time sampling, rates per hour, comparisons across nests, evidence-based claims and a short research report
9–12 LATER	Independent methods, inter-rater reliability and multi-season analysis

Lessons are small, standards-mapped modules: a teacher guide, a **15–30 minute** in-platform activity and **one question answered with the class's own data**. They are being co-written with pilot teachers and reviewed by wildlife experts, and mapped to **NGSS** life-science and data practices (life cycles, parental behavior, food webs, habitat, scientific observation and interpreting evidence), with exact alignment confirmed with educators.

FOLLOWING THE SEASON TOGETHER

PREDICTION POLLS

Each class votes on a nest's first egg, hatch and fledge dates, then watches to see who called it.

PUBLIC NEST TIMELINES

Validated milestones, clips and expert notes for each nest, open to everyone, with no student data.

SAFETY & PRIVACY

4 SAFE, PRIVATE, ACCESSIBLE

TEACHER CONTROLS, NICKNAME-ONLY STUDENTS, NO ADS

NESTS CAN BE HARD TO WATCH. CLASSROOM PLANS FOR IT.

ONE-CLICK TEACHER CONTROL

An always-visible **switch to highlights** button moves every screen in the session, including the projector, at once.

GRADE DEFAULTS

K–2 classes default to curated replay. Grades 3–8 can watch live with the control in reach.

MODERATOR FLAGS

When staff flag a sensitive event on a cam, student live views switch to highlights automatically.

TEACHER NOTICE

Teachers get a banner with plain-language talking points.

A SHORT SAFETY DELAY ON LIVE VIDEO

Students' live view runs a short delay behind the camera, so a teacher can skip a disturbing moment, switching the class to highlights, before students see it live.

PRIVACY AND ACCESSIBILITY

NICKNAME-ONLY STUDENTS

Students join with a class code and a nickname. No student email, name, profile or password, and no IP address or device fingerprint stored.

TEACHER-MANAGED CLASSES

Teachers create classes, can delete students and archive classes. Retention limits are enforced automatically.

NO ADS, NO TRACKERS

No advertising, tracking pixels or third-party scripts on classroom.hdontap.com. No student data sold, ever.

NO SOCIAL FEATURES

No chat, messaging, open comments, public student content or leaderboards.

ACCESSIBLE BY DESIGN

Designed to meet WCAG 2.2 AA: a keyboard-operable observation panel (number keys for codes), screen-reader labels and captions on narrated clips. An accessibility audit is planned before launch.

RIGHTS RESPECTED

Classroom use, clips and public timelines are set camera by camera, and enforced in the software.

BUILT FOR DISTRICT PRIVACY REVIEW

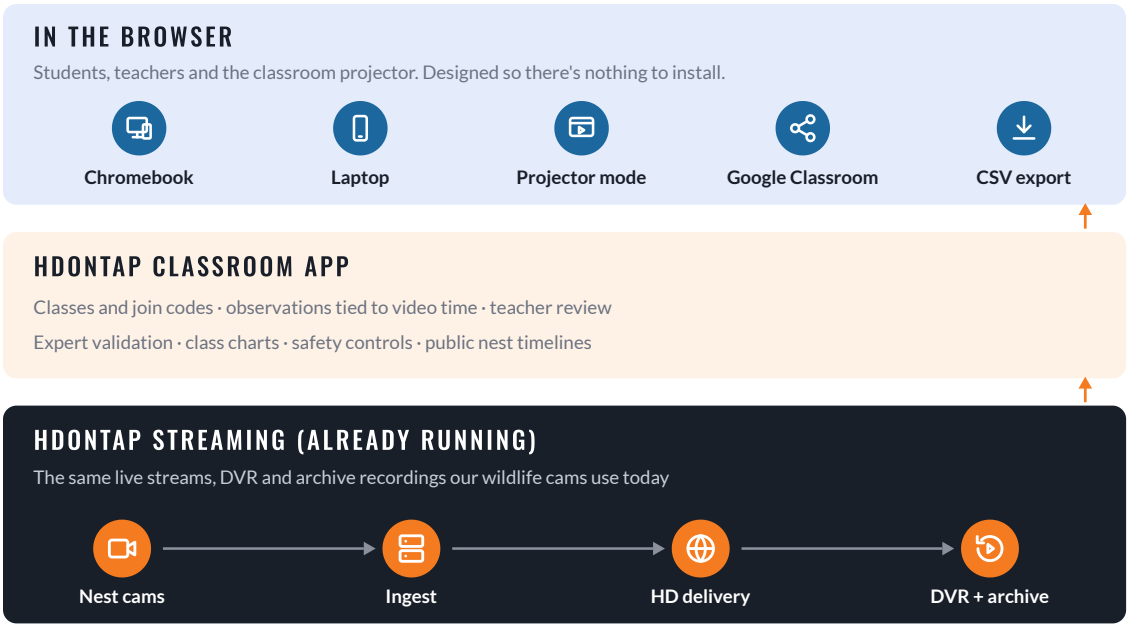
Students never create accounts or give personal details, and class observations stay private to the class and its teacher. We'll offer districts a **student data privacy agreement** based on the Student Data Privacy Consortium's **National Data Privacy Agreement (NDPA)** template, so districts can adopt Classroom without a custom legal review.

TECHNOLOGY & TIMELINE

5 HOW IT WORKS

AND WHAT'S NEXT FOR THE 2027 SEASON

Classroom is a **web application** that reads from HDOnTap's existing live streams, DVR and archive recordings: **no new cameras** to install, and it's designed so **schools have no software** to install.



BROWSER-BASED

Designed to run in a standard web browser, including school Chromebooks and classroom computers, with nothing to install. Chrome is recommended.

MADE FOR THE PROJECTOR

Projector mode plays the nest in 1080p, with 4K as an option, plus the join code and a live tally.

EASY SIGN-IN

Teachers sign in with an email link or Google. Students just enter a class code and a nickname.

VIDEO TIME, NOT CLICK TIME

Each tag stores the stream's own timestamp, so it links back to the same moment later, even in replay.

THE 2027 SEASON

Egg-laying on many US eagle nests runs January through March, so a pilot starting the week of **January 5, 2027** lets classes follow incubation, hatch and fledge. Pilot classrooms get full access free, and the core classroom experience stays free for teachers.



PARTNER WITH US

BRING YOUR WILDLIFE TO THE CLASSROOM

HDOnTap builds and runs the platform. Wildlife and conservation organizations, camera hosts, educators and sponsors can plug in wherever they add the most: expertise, validation, local reach or funding. Partners are optional and flexible: any number of organizations can join a project, and partner branding appears only where it's switched on.

VALIDATORS

Review milestones and selected events, and post expert notes on a nest's timeline.

COLLABORATORS

Help shape behavior codes and lessons, and introduce teachers from existing programs.

CONTENT PARTNERS

Bring your cam, footage or expertise, and make your nest a classroom research project.

SPONSORS

Help bring free wildlife science to classrooms in your region, or to a named nest.

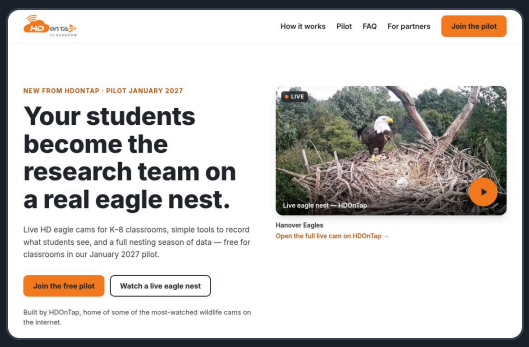
GET INVOLVED

TEACHERS: JOIN THE FREE PILOT.
ORGANIZATIONS: TELL US YOUR IDEA.

EDUCATOR WAITLIST
classroom.hdontap.com

PARTNER INQUIRIES
classroom.hdontap.com/partners

EMAIL US
classroom@hdontap.com



classroom.hdontap.com, where educators can join the pilot waitlist.

IP Video Specialists, Inc. d.b.a. HDOnTap
2120 Jimmy Durante Blvd. #123, Del Mar, CA 92014

STREAMING SERVICES REDEFINED.