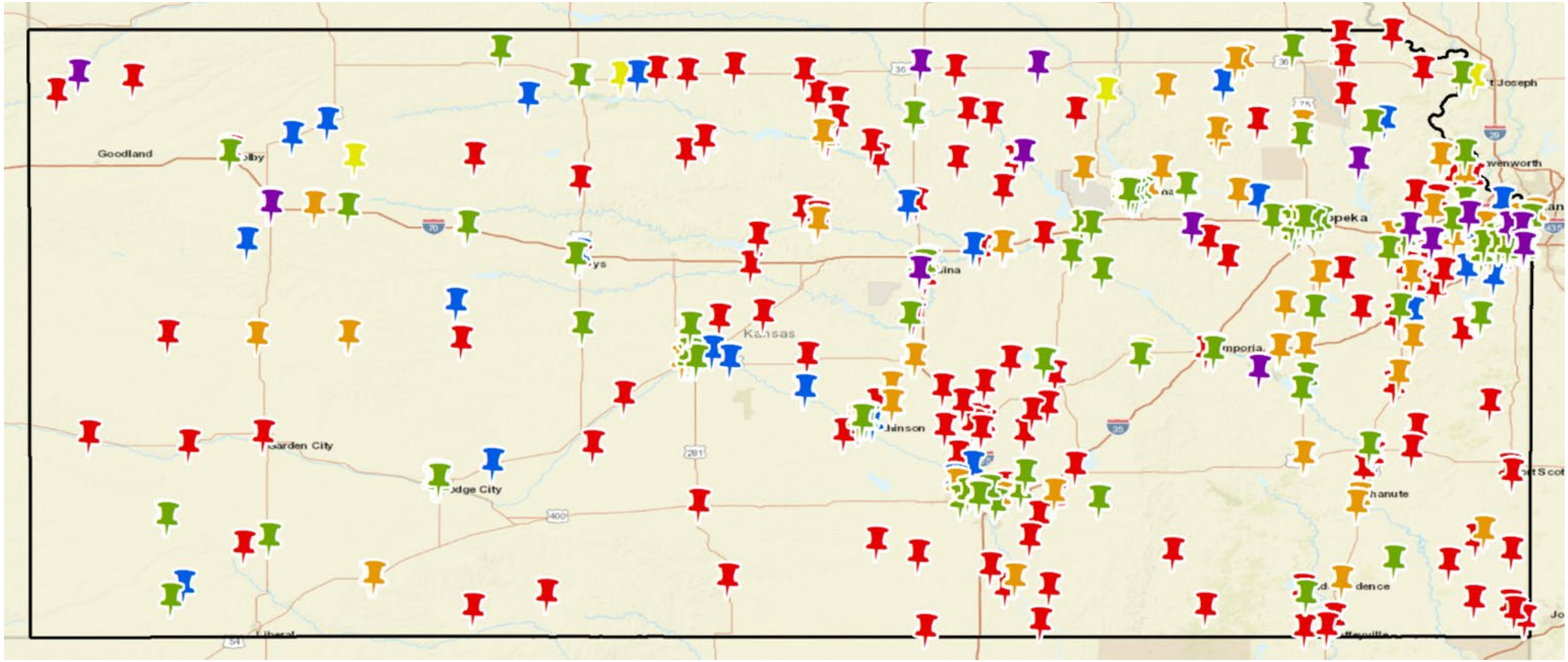
2026 Kansas KidWind Challenge

NOVEMBER 13, 2025 – INFORMATIONAL WEBINAR

We are part of Kansas State University Engineering Extension.

The program was established in 2016 through a partnership with the Kansas Corporation Commission Energy Office.

Where We Go



Educational Events (330)

FCIP (14)

K-12 Benchmarking (27)

KidWind (98)

Loans (>129)

Small Business Energy Assessments (188)

What is KidWind?

Benefits of KidWind

NGSS-Aligned Science and Engineering standards

Career connections

Project-based

Compete with peers in a supportive environment

Students learning and using soft skills

Support from KEP (events, resources, equipment, reimbursements)

What your students will learn through KidWind

(based on feedback from 2025 KidWind teachers/coaches)

Opportunities Are All Around!

STEM-Focused Classes

Career & Technical Education

Clubs & Competitions

Job Shadowing & Internships

Dual Credit or Technical College Courses

Many Energy Educational Opportunities in Kansas

Colby Community College – Wind Technology, Solar Photovoltaic

Cloud County Community College – Wind, Solar, Blade Repair, Substations, Drones

Hutchinson Community College – HVAC, Industrial Electrical Tech, Industrial Mechanical Maintenance, Renewable Energy Technology, Welding, Automation Engineer

Johnson County Community College – Automation Engineer, Data Analytics, Electrical/Electronics, HVAC

Kansas City KS Community College – Electrical Technology, Electronics Engineering Technology, Env. Studies, HVAC, High Voltage Line Tech

Manhattan Area Technical College – Electric Power & Distribution, HVAC, Welding, Industrial Maintenance Technology

K-State – Engineering, Agriculture, Chemistry, Education

KU – Law (Env, Energy, Natural Resources), Engineering, Chemistry

Other Fields of Study that are Needed in the Energy Industry

Accounting and Finance

Biology

Chemistry

Communications

Computer Science

Education

Graphic Design

Law

Leadership and Management

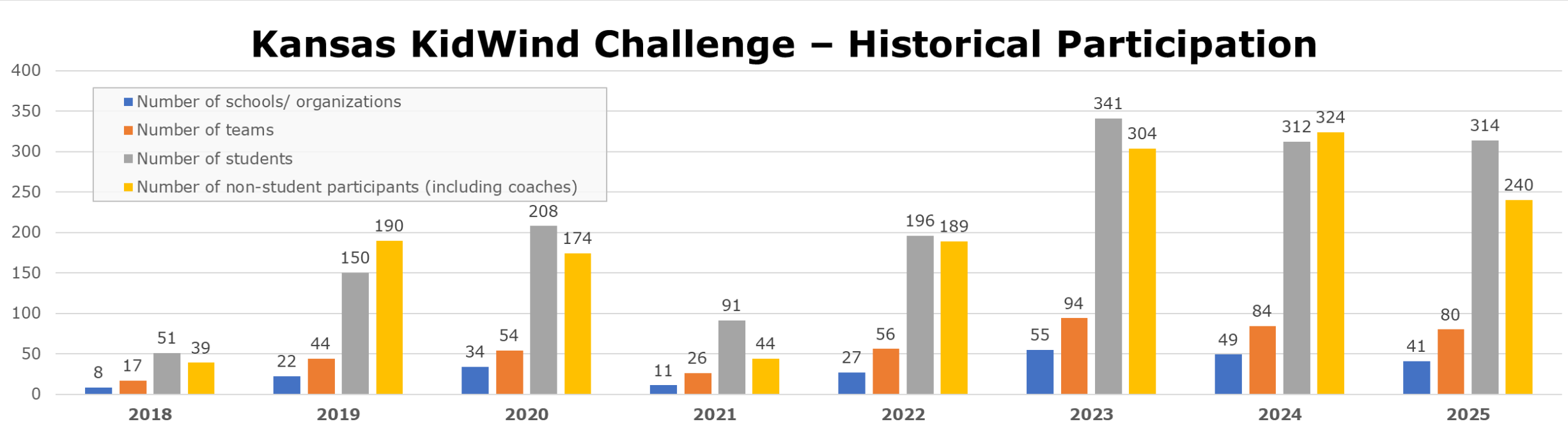
Sociology

2026 KidWind Challenges

2026 World KidWind Challenge

- University of Wisconsin – Madison (9 hours from Manhattan, KS)
- Two types of challenges: Wind Challenge and Solar Challenge
- Worlds Competition Elements
  - Wind Turbine Testing
  - Solar Testing
  - Judging Session
  - Instant Challenges
  - Quizbowl

KidWind Over the Years



2018: KEP/KCC began hosting program; One Challenge in Manhattan

2019: Four regional Challenges + Statewide Challenge

2020: Five regional Challenges (Statewide canceled due to pandemic)

2021: Due to pandemic, hosted three regional Challenges & Statewide (all virtual)

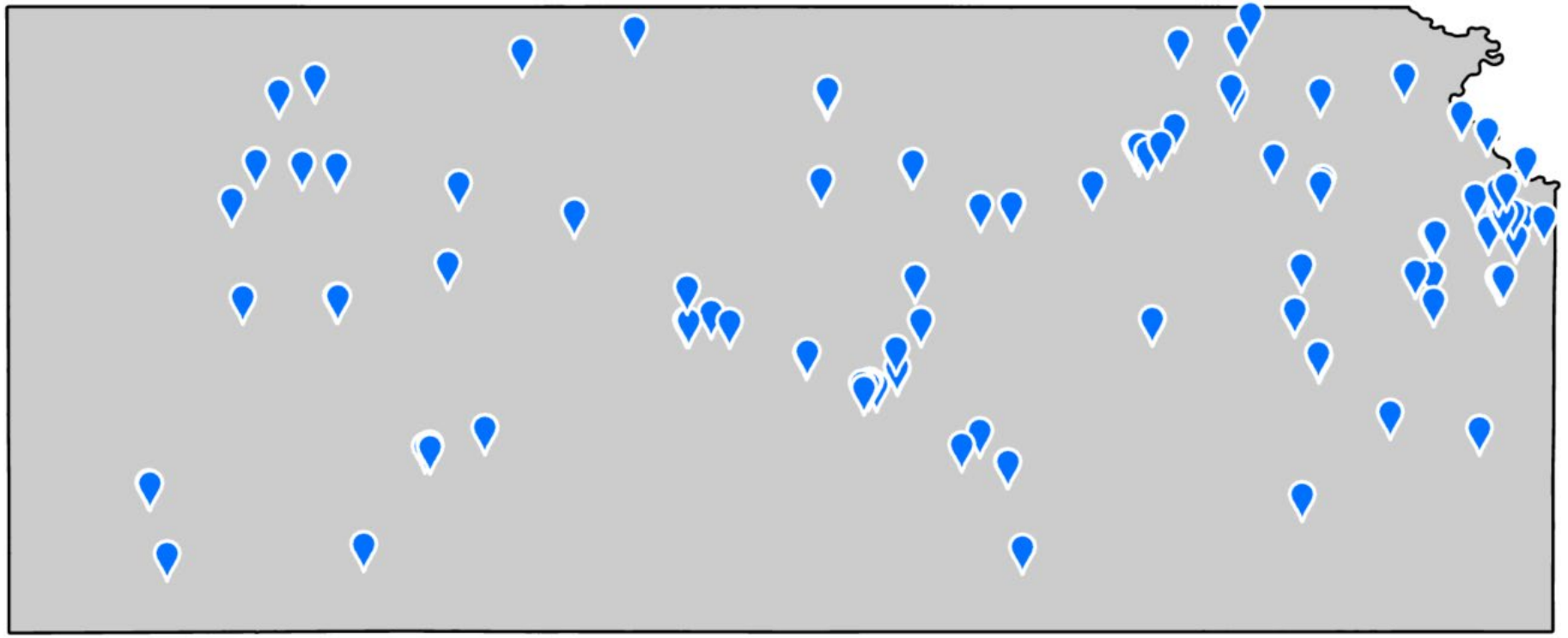
2022: Five regionals (Pandemic prevented some participation; one regional cancelled) + Statewide

2023: Six regional challenges + Statewide

2024: Six regional challenges + Statewide (23 team cancellations – many due to # of snow days)

2025: Five regionals + Statewide (NE cancelled; many cancellations due to # of snow days)

Who Participates?



More than 850 students participated in the KidWind Process in 2025 and >1,100 in 2024.

Regionals, State, Worlds - OH MY!

How to Register for Regionals *(2-part process)*

Initial registration (by December 19 or full):

- Contact info
- Number and age division of teams (*NO details*)
- Which Challenge you want to attend
- *The third team in age division is automatically waitlisted*

Follow-up registration (December-January)

- Names of students and teams
- Dietary restrictions
- Photo release forms

KidWind Timeline

Register
- Oct. 1 to December 19: Register basic info and # teams
- Waitlisted teams announced 12/16/25

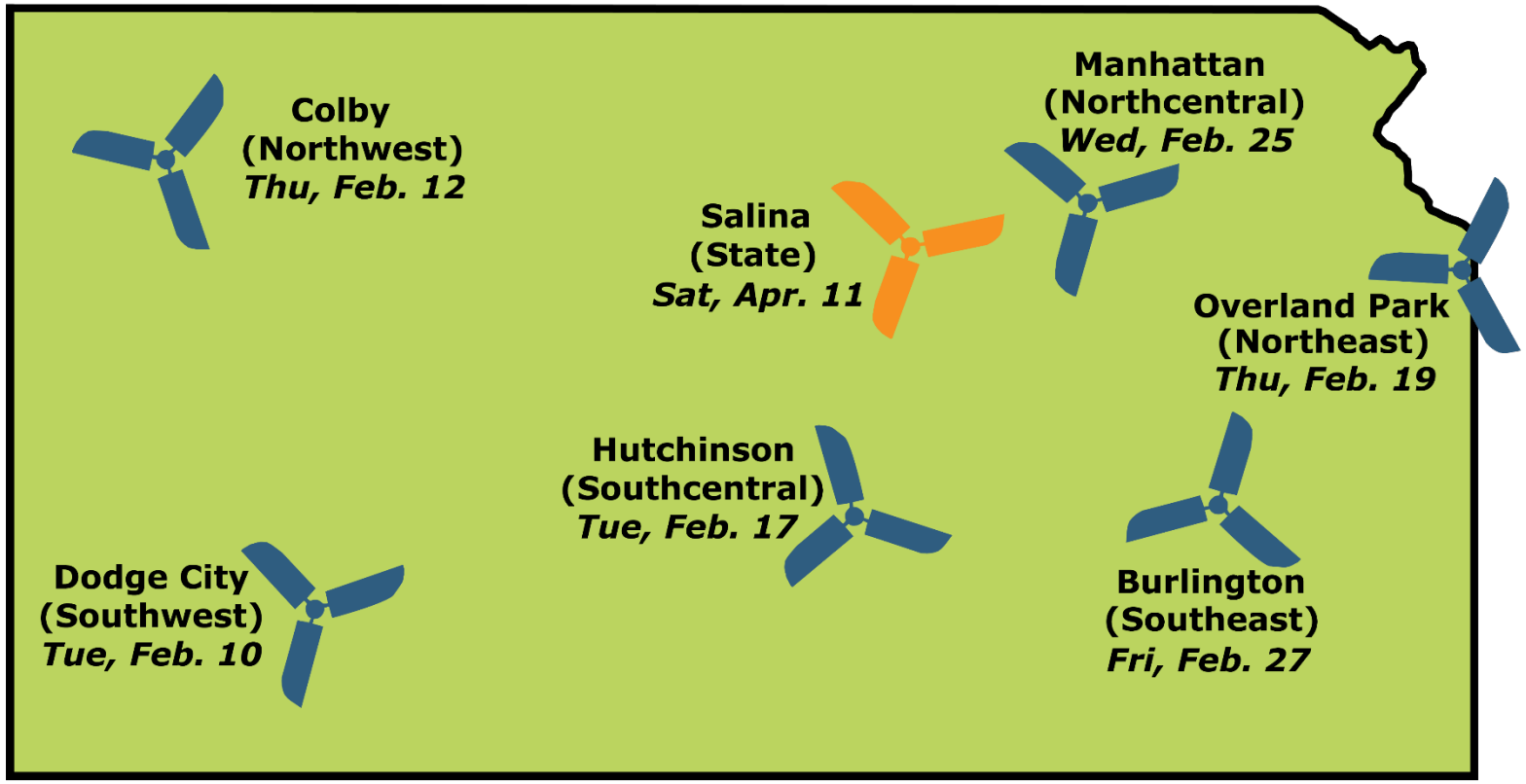
Prepare
- Throughout the fall and/or early spring semester, teams explore, design/build, and prepare (borrow a wind tunnel!)

Attend Regional
- February 2026: Regional events (map with locations and dates coming up). Top two teams in each age division advance.

Attend State
- April 11, 2026 (Sat) in Salina *(teams can totally redesign turbines if desired)*

Attend Worlds
- Typically held in early to mid-May. Details to come.

2026 KidWind Locations



You choose which to attend based on date and location.

NOTE: Each school is limited to 3 teams per age division maximum. You cannot send more than 3 teams by splitting between multiple challenges.

Basic Rules

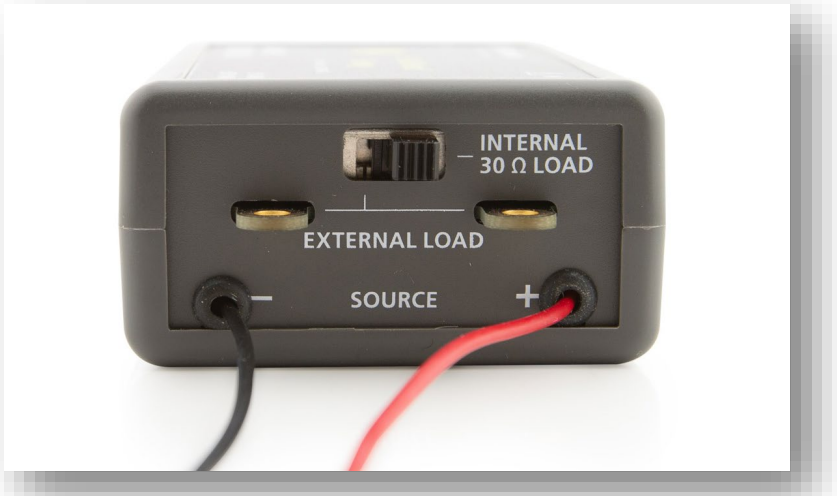
- A KidWind turbine generator (only 1 per turbine) is the only required part: https://www.vernier.com/product/kidwind-wind-turbine-generator-with-wires/ (we will provide these as needed)
- Each team must have its own turbine and base
- Each team must have a coach – coaches are responsible for registering team and managing progress
- Visit https://kansasenergyprogram.org/educators/kidwind-challenge for more information. Scroll down to "KidWind Resources" for the rules and logistics.

Basic Rules (continued)

- The turbine must fit inside a 48”x48” wind tunnel (allow some room).
- The turbine must be free-standing (has its own tower). We will provide weights to help hold turbine in place.
- Power must be generated solely by wind (you cannot “help” get it started).
- You are allowed to use purchased parts (other than pre-made airfoils), but judges may award points for creativity and economical use of resources.
- Blades must be made of safe materials (avoid metal, plexiglass, or anything with sharp edges).

Basic Rules (continued)

- When measuring power output from the turbine during the KidWind Challenge, it will be hooked up to a 30-ohm resistor to create a load, so don’t forget to test it that way.
- Approximate wind speed in the tunnel is 3.5 meters/second (7.8 mph), so make sure to test your device for high winds.



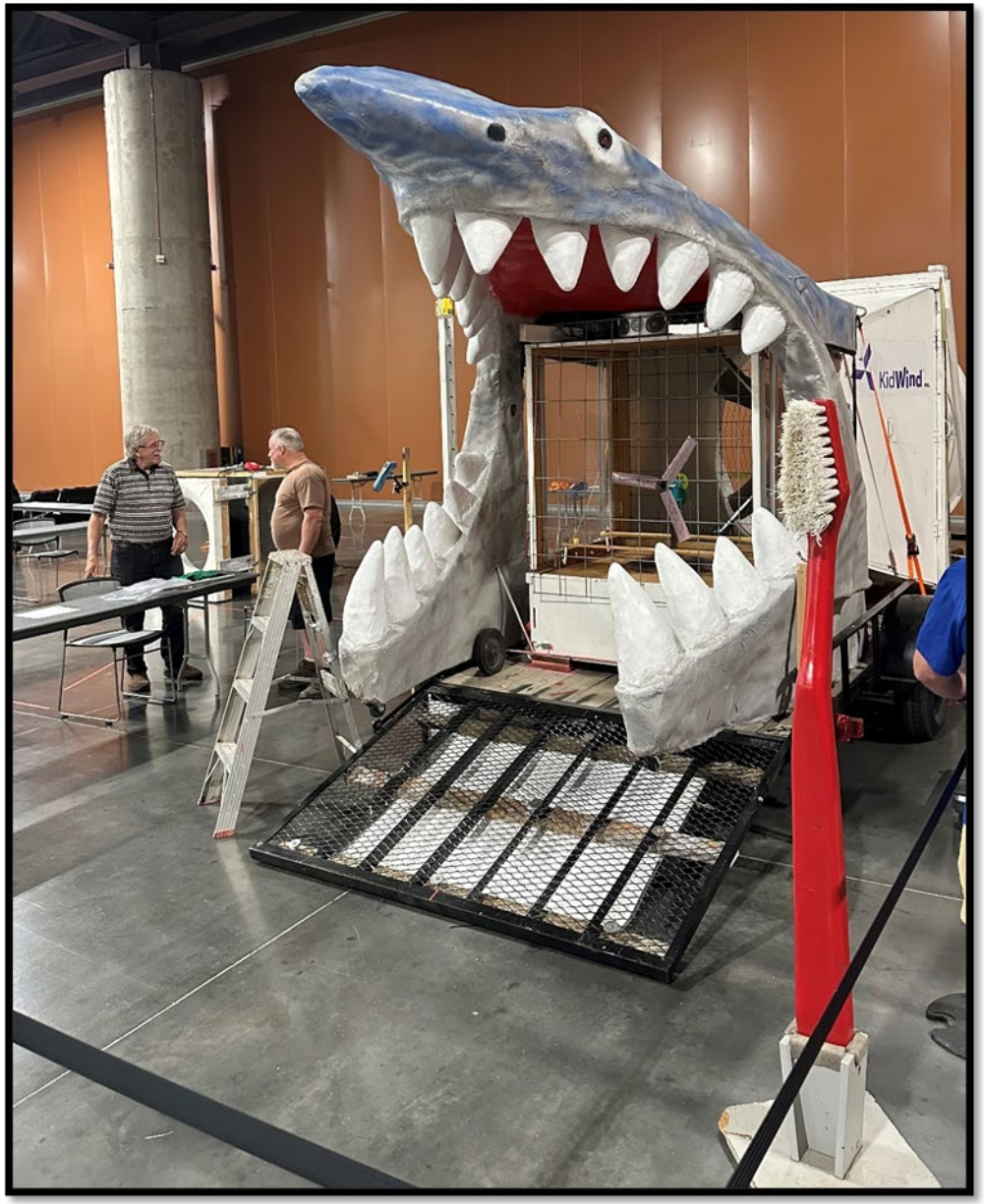
Continued from 2025

- **4th-5th Grade Division:** The 4th-8th division has been separated into two divisions (4th-5th and 6th-8th). Matches with World KidWind Challenge.
- **Registration:** Schools can register up to 3 teams per division per regional. The first and second teams are guaranteed a spot, third teams are waitlisted.
- **New Generator Divisions:** ***At the state challenge***, 6th-8th and 9th-12th teams will be given the option to participate in an Open or Home Built generator division.
- **Performance Tunnel Scoring:** Turbine efficiency is no longer part of the turbine scoring. All points at the performance tunnel will be based on energy output.
- **Penalties:** Similar to the World KidWind Challenge, penalty points assigned for the following: using a phone or other electronic device during the instant challenge or knowledge quiz, coaches/adults repairing or making improvements to the turbine during the event without prior approval from an event organizer, students not being respectful of the facility or KEP equipment, coaches/adults trying to enter judging area.

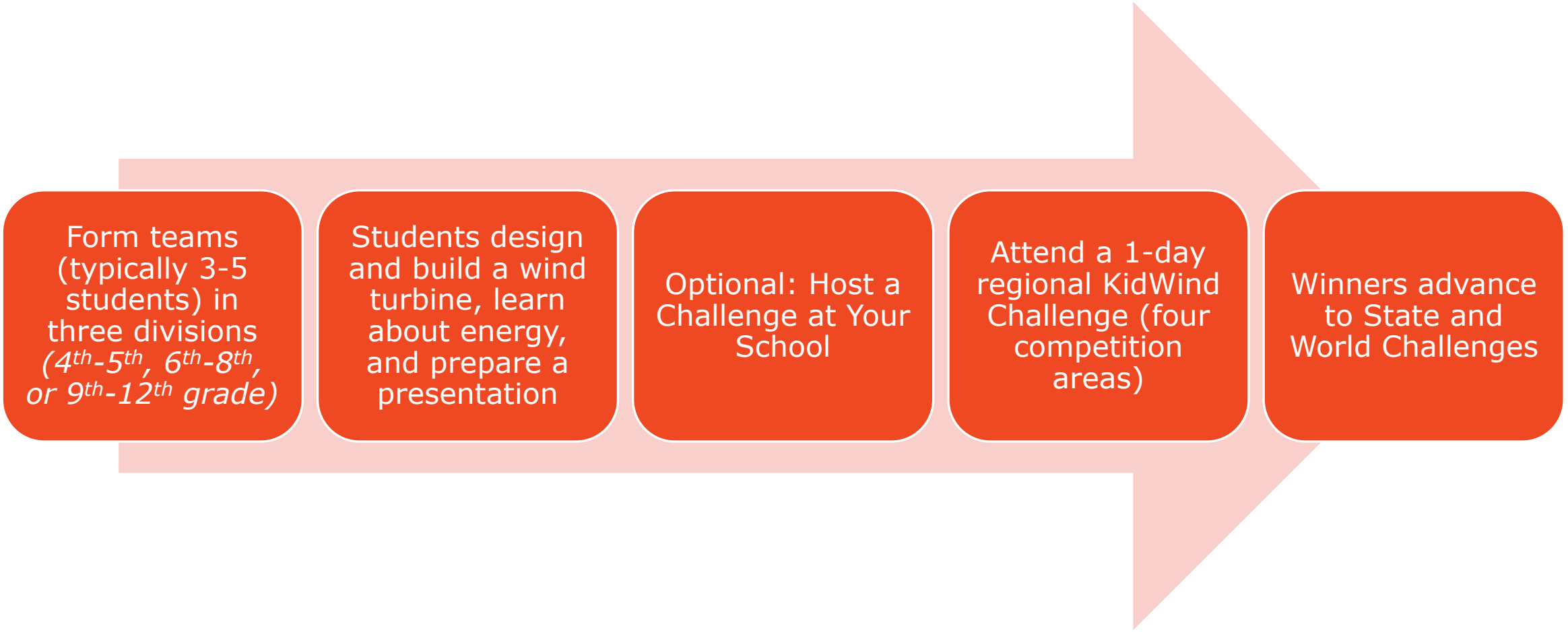
New for 2026!

- **What's new?:**
  - No major changes – just clarifications
  - Check out the 2026 Kansas KidWind Challenge Guidebook and look for the green highlights. This is available on the KidWind Resources webpage.

- And…da dum da dum


KidWind

Basic Competition Overview



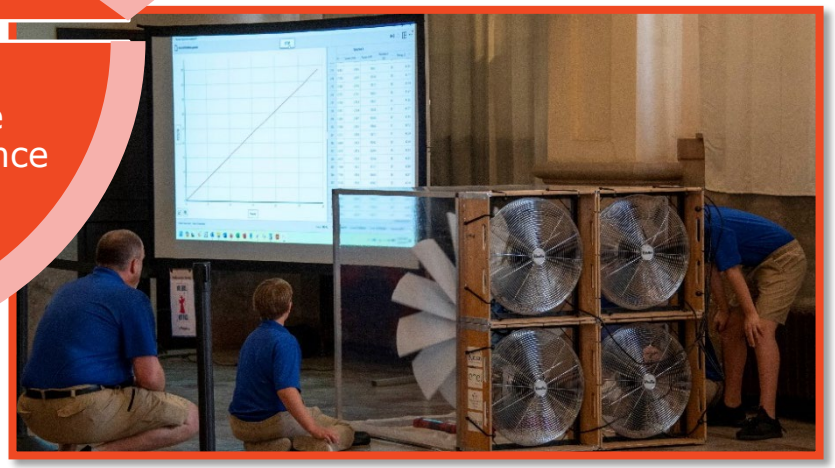
Four Parts in Photos *(more details later)*

Judges Panel

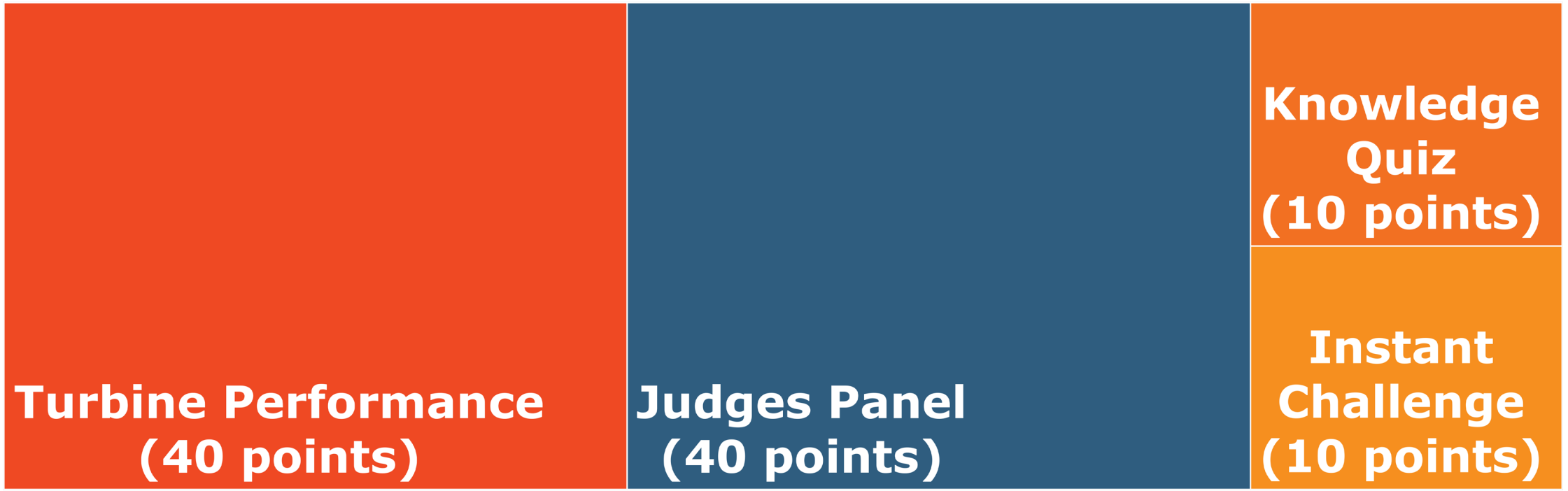
Instant Challenge

Knowledge Quiz

Turbine Performance



How Points Are Scored



(more details later as we discuss each part of the Challenge)

KidWind Challenge Logistics

KidWind T-Shirt Design Contest

https://kansasenergyprogram.org/educators/kidwind-challenge/2026-kidwind-challenge-t-

Who can participate?

Any student in the 4th-12th grade.

There is no restriction on team size, but 3 to 5 students per team is recommended.

Teams can come from public schools, home schools, after-school clubs, etc.

Teams need to have an adult (coach) with them at the event (one adult per 10 students).

What does it cost?

No cost! *(only supplies to build the turbine)*

Only required part is a KidWind Generator from Vernier

- 3-pack is $20 or 10-pack is $60
- We can provide one generator/team

Mileage reimbursement and stipends for teacher substitutes are available.

Lunch is provided at each event.

How to Incorporate KidWind?

Some teachers kick off lessons after winter break and spend a couple weeks on the project; others start in the fall and then come back to it in January/February.

Some teachers will use the KidWind Challenge as a capstone project for students.

Teachers can host an internal competition to decide who will attend a regional Challenge *(more on this later).*

Many resources available *(more on this later)*

Internal Challenges

If you want to involve an entire class or grade level, we recommend holding an internal challenge to decide the winning teams to attend regionals.

We can provide resources and limited assistance (including sending 1-2 volunteers)

What does the day look like?

KANSAS KidWind Challenge

2025 NC Regional Kansas KidWind Challenge - 02/25
Location: Manhattan Area Technical College

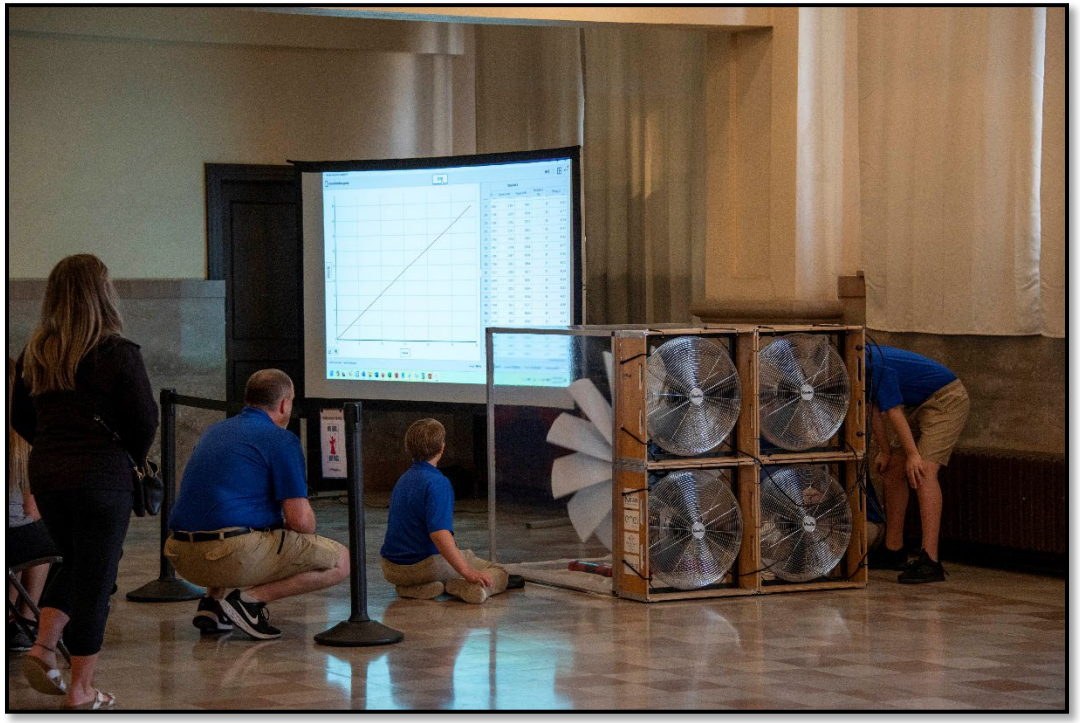
Begin	End	Judging Room	Knowledge Quiz	Performance Tunnel	Instant Challenge
8:00 AM	8:40 AM	Registration, practice tunnel available			
8:40 AM	9:00 AM	Opening Remarks			
9:00 AM	9:10 AM	-	H (6-8)	-	-
9:10 AM	9:20 AM	C (6-8)	-	A (4-5)	F (6-8) G (6-8)
9:20 AM	9:30 AM	D (6-8)	I (6-8)	B (4-5)	
9:30 AM	9:40 AM	E (6-8)	-	-	-
9:40 AM	9:50 AM	-	J (6-8)	C (6-8)	M (9-12)
9:50 AM	10:00 AM	H (6-8)	-	D (6-8)	
10:00 AM	10:10 AM	I (6-8)	K (9-12)	E (6-8)	-
10:10 AM	10:20 AM	J (6-8)	-	F (6-8)	-
10:20 AM	10:30 AM	-	L (9-12)	G (6-8)	A (4-5) B (4-5)
10:30 AM	10:40 AM	-	-	H (6-8)	
10:40 AM	10:50 AM	F (6-8)	M (9-12)	I (6-8)	-
10:50 AM	11:00 AM	G (6-8)	-	J (6-8)	C (6-8) D (6-8)
11:00 AM	11:10 AM	-	-	-	
11:10 AM	11:20 AM	-	-	K (9-12)	-
11:20 AM	11:30 AM	A (4-5)	F (6-8)	L (9-12)	E (6-8) H (6-8)
11:30 AM	11:40 AM	B (4-5)	-	M (9-12)	
11:40 AM	11:50 AM	-	G (6-8)	-	-
11:50 AM	12:30 PM	Lunch			
12:30 PM	12:35 PM	-	D (6-8)	-	-
12:35 PM	12:40 PM	K (9-12)		A (4-5)	I (6-8) J (6-8)
12:40 PM	12:45 PM		E (6-8)	B (4-5)	
12:45 PM	12:50 PM	L (9-12)		-	
12:50 PM	12:55 PM			C (6-8)	
12:55 PM	1:00 PM	M (9-12)	A (4-5)	D (6-8)	-
1:00 PM	1:05 PM			E (6-8)	K (9-12) L (9-12)
1:05 PM	1:10 PM	-	B (4-5)	F (6-8)	
1:10 PM	1:15 PM	-		G (6-8)	
1:15 PM	1:20 PM	-	C (6-8)	H (6-8)	
1:20 PM	1:25 PM	-		I (6-8)	-
1:25 PM	1:30 PM	-	-	J (6-8)	-
1:30 PM	1:35 PM	-	-	-	-
1:35 PM	1:40 PM	-	-	K (9-12)	-
1:40 PM	1:45 PM	-	-	L (9-12)	-
1:45 PM	1:50 PM	-	-	M (9-12)	-
1:50 PM	1:55 PM	-	-	-	-
1:55 PM	2:00 PM	-	-	-	-
2:00 PM	2:20 PM	Competition ends and results tallied; Presentation by Sponsors			
2:20 PM	2:40 PM	Awards			

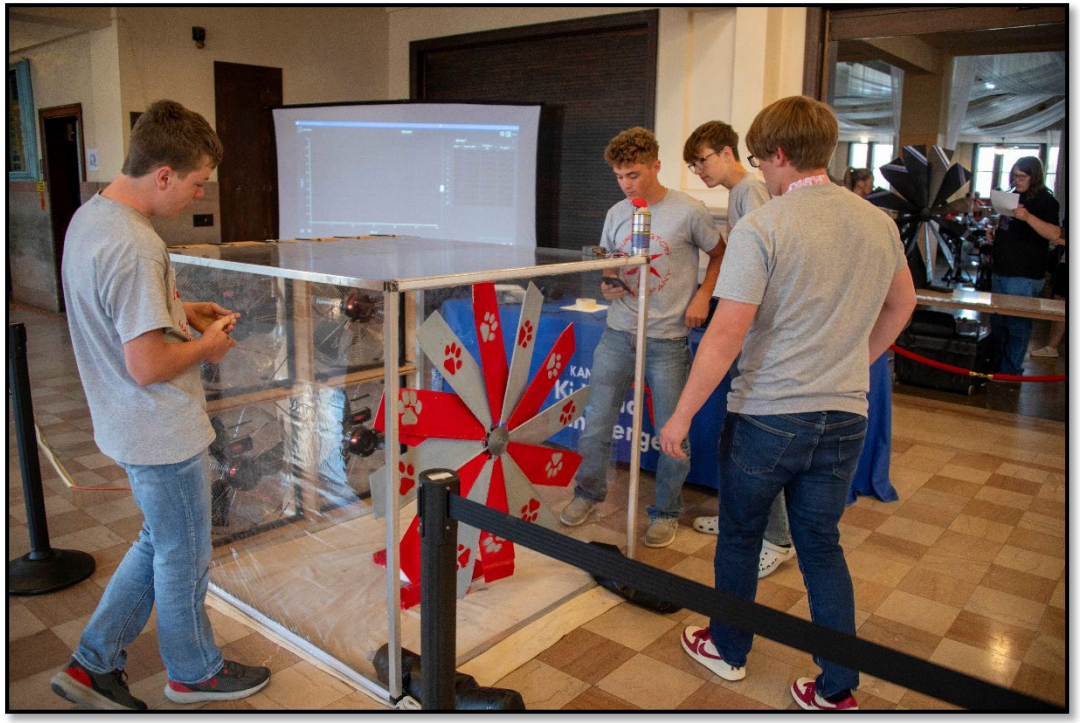
What does the day look like?

- Teams arrive between 8am and 9am.
- Teams rotate through the four areas of the competition (a schedule will be provided prior to the event date).
- There will be a presentation by a KidWind Challenge sponsor while scores are tallied (approximately 3pm).
- Winners will be announced at approximately 3:30pm, so teams can be on the road around 4pm.
- Times will shift based on number of teams.

Practice wind tunnel

Performance wind tunnel





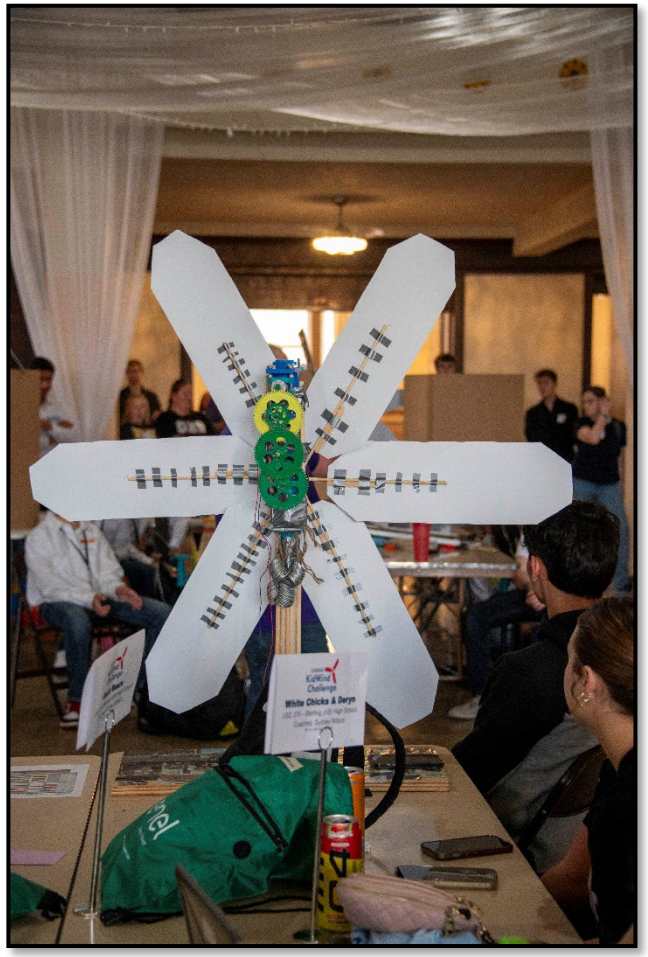
Judges Panel

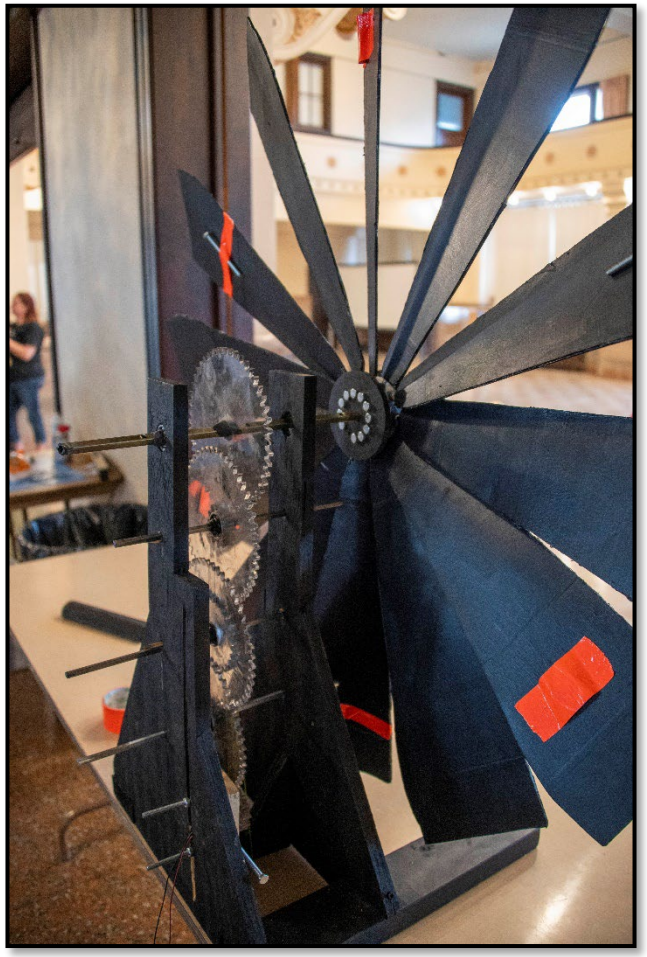
Knowledge Quiz

Instant Challenge

Turbines

Turbines





Kansas KidWind Resources

- Everything should be located on our KidWind Resources webpage:
  - 2026 Kansas KidWind Challenge Guidebook (overview, eligibility, rules, etc.)
  - 2025-26 Wind Rulebook (World KidWind)
  - Study Guides by age division
  - Other activities, curricula, and resources
  - A recording of this webinar
  - Scoresheets

- *NOTE: some documents (such as the study guides) may not yet be updated for 2026. These should be labeled.*

Registration

- Register as soon as possible. For now, we just need your contact information, which Challenge you plan to attend, and how many teams you'll be bringing. We'll get the rest later!
- Choose the regional event or date which makes the most sense for your team(s).
- Registration links and location details can be found at: https://kansasenergyprogram.org/educators/kidwind-challenge/upcoming-events

Registration as of 11/13/25

- Southwest Regional (Dodge City) – Feb. 10, 2026 (Tue) **- 15 teams**
- Northwest Regional (Colby) – Feb. 12, 2026 (Thu) **- 15 teams**
- Southcentral Regional (Hutchinson) – Feb 17, 2026 (Tue) **- 14 teams**
- Northeast Regional (Overland Park) – Feb. 19, 2026 (Thu) **- 14 teams**
- Northcentral Regional (Manhattan) – Feb. 25, 2026 (Wed) **- 19 teams**
- Southeast Regional (Burlington) – Feb. 27, 2026 (Fri) **- 15 teams**

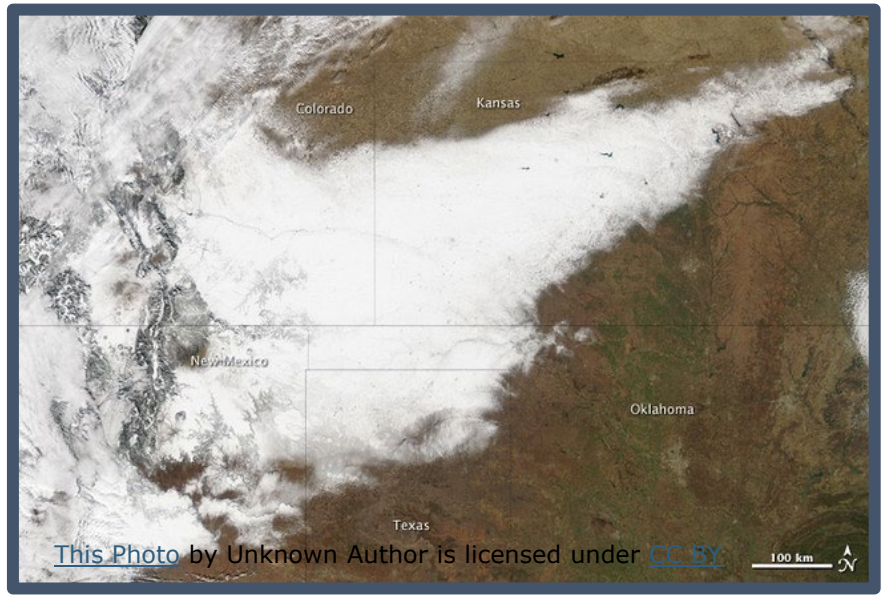
Not ready for KidWind?

- Borrow KEP resources and equipment and start with a few lessons/activities
- Host an internal competition at your school
- Attend a regional or state Challenge just to see what it's like. Students are welcome to come and observe. Give us a heads up and we'll see how we can include them without officially being part of the competition.

Our recommendation: Sign up and bring a team, even if you don't feel ready!
In 2024, 81% of registered teachers had participated in the past. Many of them will tell you the first year is all about learning!

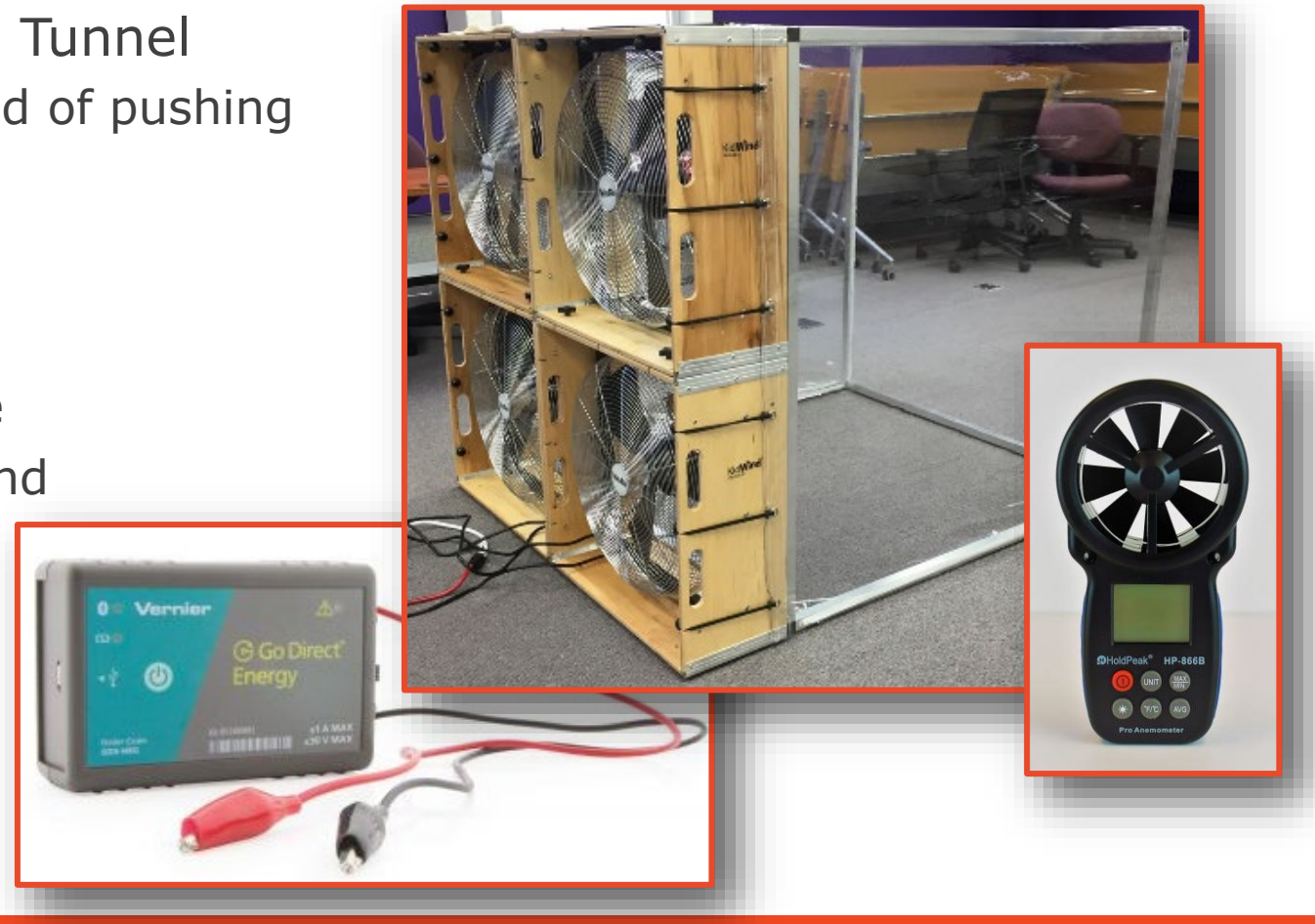
Cancellation or Rescheduling

- If at least two schools (with five total teams) aren't registered for a regional Challenge at least two weeks ahead of the event, the Challenge may be cancelled. In this case, a school may choose to switch to a different regional event.
- In the event of possible cancellation due to weather, we will be in close contact with coaches. Our goal will be to cancel the event the evening before the challenge.



Competition Testing Equipment

- Competition-grade KidWind Wind Tunnel
  - Fans pull air through tunnel instead of pushing air out
- Energy Sensor
  - Vernier Go Direct Energy Sensor
  - Measures energy output over time
  - Connects to computers, tablets, and phones using “Graphical Analysis” program



Lending Library

- Restrictions on availability will apply for equipment required for Regional and State KidWind Challenges
- Kansas Energy Program is also available for outreach and presentations on energy-related topics
- Equipment Library

2025 Kansas KidWind Challenge Sponsors and Partners

Contacts

- David Carter, Director
- Kurt Foley, Energy Specialist
- Mandy Putnam, Instructor
- Ryan Hamel, Energy Specialist
- Stacy Harris, Instructor
- Brie Little, Instructor

https://kansasenergyprogram.org

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Kansas Energy Program

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