Overview & Eligibility – 2026 Kansas KidWind

After reviewing this information, additional details can be found in the Rules and Logistics document. If you have questions, contact the Kansas Energy Program - ksenergyprog@ksu.edu or 785-532-6026.

What is the KidWind Challenge?

The KidWind Challenge, which officially kicked off in 2009, is an annual STEM competition that allows students to explore the power of wind energy by building and testing wind turbines, and then competing against other teams in their age division (4th-5th, 6th-8th, or 9th-12th). Watch our 3-minute overview video to see what the competition is like. The Kansas KidWind Challenge is organized by the Kansas Energy Program (KEP), part of the Engineering Extension at Kansas State University.

In Kansas, teams build their turbines before attending one of six regional KidWind Challenges. At the challenge, teams test their turbines for energy output in a wind tunnel, present their turbine design-and-build process to a panel of judges, take a knowledge quiz, and participate in a hands-on task called the "Instant Challenge." The top two winners in each age division from each regional challenge move on to compete at the statewide challenge. Teams that win at the Statewide KidWind Challenge are invited to attend the World KidWind Challenge.

Participation in KidWind is free, aside from your time and materials! A $7 generator from Vernier is required, but we can provide one to each team. Thanks to sponsor funding, we can also reimburse schools for travel and substitute teacher costs and pay for lunch and snacks!

Eligibility:

Any group of students in grades 4 to 12 is eligible to enter a team, including students from public and private schools, home-schooled students, after-school clubs, Scout troops, etc. As long as you have a coach and a team, you can attend!

In the event of a mixed-age team (a team with members who are in grades spanning multiple divisions), the team's division will be based on the oldest student. For example, if two 5th-grade students and one 6th-grade student form a team, the team will be considered in the 6th-8th division. KEP verifies the participating student's grade level via signed photo release forms.

Although there is no team size requirement, a team of 3-5 students is recommended to encourage all members to contribute equally.

Each team must have a coach/teacher. The coach/teacher is responsible for registering the team(s) for the competition, managing team progress, and supervising the team(s) at events. One person can be a coach for multiple teams, however one adult for every ten students is required at the in-person competition.

Registration Process:

Registration is a two-step process and is completed on the KEP website. Choose the regional challenge(s) that make the most sense for your team location and/or schedule. Each regional challenge is typically limited to 16-18 teams depending on location and timing.

Each school can request a maximum of three teams per age division. However, the third team in each age division is automatically added to the waiting list. Even if a school splits up its teams across multiple regional challenges, it cannot exceed three teams per age division. If KEP receives more registrations than it can handle, all new registrations will be put on the waiting list. For schools that have teams on the waiting list, KEP will notify them prior to the event if there is room for their team(s). Wait list priority will be based on the registration date. Schools that have several teams interested in participating should consider hosting an internal KidWind Challenge

at the school to decide which teams to bring. KEP staff may be able to provide support if given enough notice and if it works with their schedule.

The second step of the registration process occurs a few weeks before the challenge begins when teachers/coaches provide more detailed information about their teams (team and student names, dietary restrictions, etc). By the day of the event, photo releases must be provided for each team member and any other person who may appear in photos. KEP may use name tags to identify individuals who did not submit a photo release, so all attendees are required to wear the name tags provided.

Event Logistics:

The KidWind Challenge is a full-day event that runs from approximately 8 am to 4 pm. KEP will provide a finalized schedule to the registered coaches before the event. Throughout the day, each team will visit four event stations – Wind Turbine Performance Testing, Judging Room, Knowledge Quiz, and Instant Challenge. Each station lasts about 10-15 minutes. When students are not at an event station, they can be preparing for the competition and working on their turbines. There are typically other optional activities that students can do during their downtime.

The date and location details for each event can be found on the KidWind Upcoming Events page. Snacks and food will be provided. As part of the registration process, teachers will notify KEP before the event if students have any dietary restrictions or preferences. Approximately 1-2 weeks after each event, KEP will send the coach/teacher scanned copies of the scoring sheets and judges' comments.

Resources & Equipment:

Resources to help prepare for the KidWind Challenge can be found on the KEP KidWind Resources page. KEP loans out equipment to assist with preparing for the KidWind Challenge, including wind tunnels! Equipment can be checked out at the KEP Equipment Library. Filter equipment with "wind energy" as the focus area to find all the wind-energy-related equipment.

Rules and Logistics:

Once registered, please read the Rules and Logistics handout for more details including turbine design rules, turbine performance testing rules and scoresheets, judging presentation guidance and score sheet, instant challenge, and knowledge quiz.