

Resources for Preparing for the KidWind Challenge



WindWise Education

The WindWise curriculum is available (at no cost) through the national KidWind Project. WindWise is broken into five main topics (energy, wind, turbines, wildlife, and siting). Each unit includes lesson plans, handouts, support, and background materials.

While the lessons are not designed to be done in any particular order, they do offer some recommended pathways, depending on your subject expertise and the time you want to spend teaching about wind energy.

Link: <https://www.kidwind.org/windwise-1>



National Energy Education Development (NEED)

NEED has energy curricula broken into four age ranges (primary, elementary, intermediate, and secondary). The link below will take you directly to the units on wind energy, but take a look around on their site for other energy topics!

There's no cost to download PDFs, but you will have to add them to your "cart."

Links: [Wind Energy Infobooks](#)
[Companion activities](#)



National Energy Education Development (NEED) in Spanish (en español)

Although limited, NEED does have some resources available in Spanish.

Links: [Wind energy educational resources](#) in Spanish
[Other energy educational resources](#) in Spanish

Resources for Preparing for the KidWind Challenge (continued)



KidWind Wind Turbine Generator

This is the ONLY item that must be used when competing in the KidWind Challenge (unless your team elects to build its own).

These are available for purchase from [Vernier](http://Vernier.com). The cost is \$7 for a single generator or \$60 for a package of ten. You can also contact the Kansas Energy Program team at ksenergyprog@ksu.edu or 785-532-4998 and we will ship one per team at no cost.



KidWind Basic Wind Experiment Kit

If you're looking to kick start your turbine building, consider a wind experiment kit, which includes all the components needed to build a wind turbine. Just remember – points are awarded for creativity, so while one of these kits is a good starting point, we definitely recommend branching out when participating in the KidWind Challenge!

These are available to purchase from [Vernier](http://Vernier.com) (\$119); an [advanced kit](#) is also available (\$149). You can also contact the Kansas Energy Program team at ksenergyprog@ksu.edu or 785-532-4998 – we have a limited number available for loan.



Energy Sensor

Vernier has a few types of sensors for measuring the energy output of a wind turbine. We have found the Go Direct Energy Sensor to be the easiest – it connects by Bluetooth to your computer, phone, or tablet, and has a built in 30-ohm resistor.

These are available to purchase from [Vernier](http://Vernier.com) (\$89). You can also contact the Kansas Energy Program team at ksenergyprog@ksu.edu or 785-532-4998 – we have a limited number available for loan.

Resources for Preparing for the KidWind Challenge (continued)



Wind tunnel

The KidWind competition uses a 4' x 4' wind tunnel, available through [Vernier](#) (\$2,400). The Kansas Energy Program team has three of these available for loan, if you would like to use one at your school for testing or an internal competition. Two of these will be reserved for the KidWind Challenges, but are otherwise available for loan by contacting us at ksenergyprog@ksu.edu or 785-532-4998.

If you have plans for building a wind tunnel of your own, please let us know, so we can share that resource!



Plan to build your own wind tunnel

Do you want your own wind tunnel, but can't afford the official tunnel from Vernier? Richard, a REcharge instructor in Wisconsin has graciously made available the plans and instructions to build your own wind tunnel using a 44" diameter shop/barn fan. Instructions can be found on his blog ([December 2017 post](#)). You can also download a [PDF](#) of the overall plan.



Other resources

If you know of other resources, please let us know so we can add them to our list!