## Renewable Energy Sources Target Grade Level: 6th-8th Grade

Full Lesson Plan: <https://www.iowaagliteracy.org/Article/Renewable-Energy-Resources>

This document is meant for you, the teacher, to use to convert the lesson plan into a virtual learning module for your students. You can use the steps outlined below to create different elements of a Google Classroom or other online learning module. You can also send the steps directly to your students in a PDF, present them in a virtual meeting, or plug them into any other virtual learning platform you use. Find more virtual lessons here: [Virtual Learning.](https://www.iowaagliteracy.org/Tools-Resources/Other/Virtual-Learning)

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| Engage | Watch this crash course on energy sources.   * [Energy Crash Course](https://www.youtube.com/watch?v=4k5gyYAAEEU) |
| Explore | Put the following terms on a document and do research to find their definitions. Turn in your document to your teacher when you are done.   * Renewable Energy * Nonrenewable Energy * Wind energy * Solar energy * Biomass energy * Geothermal energy * Ethanol * Electricity * Biodiesel |
| Explain | Next, you will be conducting a research project to make a major decision about switching to a renewable fuel source. Choose one of the following scenarios.   * You are buying a new car and looking for a vehicle that is fuel efficient. You have one child and are married. You drive an average of 2 hours a day. You live on a farm. * You are a farmer that supplies electricity to a barn that houses 500 hogs. You are trying to minimize costs and are concerned with finding a source of electricity that is extremely reliable. Currently, if the power goes out on the farm, the barns have to be powered by generator to keep the hogs cool. |
| Elaborate | After choosing your scenario, it is time to begin your research. Using reliable websites, come up with two options for moving forward and find evidence regarding which option would work the best, is safest for the environment, and best for others mentioned in the scenario. You should also do research on potential price, benefits, and potential downsides to each energy source. |
| Evaluate | Finally, translate your findings and your final energy decision into a 2-page (double spaced) paper. Your paper should outline your stance clearly and include research and supporting evidence. Be sure to site your sources and turn your paper in when you are finished. |