

6th Grade Project Ideas

Energy

What new forms of energy exist? What new forms of energy transformation are we implementing? What problems are we solving?

<http://oilprice.com/Energy/Energy-General/Five-Crazy-New-Forms-Of-Energy-That-Just-Might-Work.html>

Students choose a form and research it making some

<http://www.alternative-energy-news.info/technology/future-energy/>

Weather

Students compile a booklet of 5 weather charts and/or graphs that are different in source and format. For each, they must write a paragraph explaining any trends they note in the figure.

Students keep a 10-day weather journal. The journal must contain a picture of the sky at the same time each day from the same location. The journal should contain info about conditions and the forecast.

Download a green screen app, have students do research to give a weather forecast.

Animals

Draw and label body parts of 3 closely-related animals. How did you determine that these animals were close relatives--or--require that they choose animals that are in the same genus (wikipedia is great for this!). What are the similarities and differences between the animals?

Protists, Fungi, and Plants

Diagram a plant, fungi, or protist experiment that you develop based on research. The independent variable should be related to air, water, light, minerals, space, temperature, light, touch or gravity.

Write a children's book about protists or fungi, complete with pictures, to educate kindergartners about these organisms. The book must contain important vocabulary and pictures with captions. Remember, you are writing nonfiction for a 5 year old.

7th Grade Project Ideas

Matter

Students research a group (vertical) of elements--similarities, differences, trends

My Favorite Compounds

Compounds that have changed the world

<https://cosmosmagazine.com/chemistry/17-molecules-changed-world>

Most important Chemical Reactions

http://justonly.com/chemistry/pdfs/ten_reactions.pdf

Living Systems

Aristotle is considered to be the Father of Biology, who else do you think should be considered, why? <http://objectivescience.net/aristotle-father-of-biology/>

Virchow, Scheleiden, Schwann, Hooke, Leeuwenhoek, etc.

Bacteria--the Good, Bad, and Ugly

Development of penicillin, Bubonic Plague, Joseph Lister, Spontaneous Generation, Griffith's Experiment, Redi, Spallanzani, Pasteur, Needham.

Diagram an Experiment to study the growth of bacteria after studying about spontaneous generation.

Think of a common health ailment. What is the effect? What system does it primarily impact? How? What other systems can be impacted, how?

Inheritance

How do twin studies shed light genetic vs. environmental impacts on health. Choose a genetic condition to research, then research twin studies of the condition.

Group of 3--How can mutations, be beneficial, harmful, or have no effect.

Students choose either genetic engineering or selective breeding, they research and write about 3 results of each.

Living Systems & Environment

Diagram an experiment regarding soil quality, composition, texture, particle size, permeability, pH.

Research a plant or animal on the endangered species list.