



## Inquiry Based Learning: Graphic Organizer High School NGSS

Great explanation and introduction about Project Based Learning:

<http://www.youtube.com/watch?v=LMCZvGesRz8>

**NGSS High School Standard(s):** [Weather and Climate](#) [Earth's System \(only HS-ESS2-2\)](#) [Interdependent Relationships in Ecosystems \(HS-LS2-6 or HS-LS4-6\)](#)  
[NGSS Humans sustainability](#) (only HS-ESS3-1) [Natural Selection and Evolution \(HS-LS4-5\)](#)

Learning Outcomes:

Essential Question:



### Teacher Driven:

- Teacher driven question and activities
- Structured inquiry
- Way to initiate inquiry learning
- Video link modeling:

<http://www.youtube.com/watch?v=b133AGFclCY>

Students perform Problem-Based Learning experiments on a basic level.

<http://www.youtube.com/watch?v=sLOPXd8BjIA>

Inquiry Based Learning: An Explanation

### Teacher Initiated/Student Motivated:

- Teacher develops question, and potential activities
- Student chooses activity to solve problem
- Transitional step to more student led inquiry
- Video link modeling:

<http://www.youtube.com/watch?v=z8Lh5MfyE-E&list=PLC964E1A8E649523C>

Project-Based Learning: Guided Inquiry with 8<sup>th</sup> grade class about landfills.

### Student Driven:

- Students develop question, procedure and activities
- Open-ended inquiry
- Teacher facilitates/acts as a resource
- Video link modeling:

[http://www.bie.org/videos/video/monarch\\_butterfly\\_project](http://www.bie.org/videos/video/monarch_butterfly_project)

This video describes PBL using students tracking monarch butterfly migration.

<http://pbis.its-about-time.com/video/introductory>

Introduction to Problem-Based Learning on an upper level using biology.



### Instructions/Procedures for activities

### Potential activities for students to choose:

### Probing questions and list of materials available:

### Possible Products:

- |  |                                     |  |                          |
|--|-------------------------------------|--|--------------------------|
| <input type="checkbox"/> Multimedia        | <input type="checkbox"/> Lab Report | <input type="checkbox"/> Comic Strip   | <input type="checkbox"/> |
| <input type="checkbox"/> Story             | <input type="checkbox"/> Pamphlet   | <input type="checkbox"/> Mind Map      | <input type="checkbox"/> |
| <input type="checkbox"/> Skit/Role Playing | <input type="checkbox"/> 3-D Model  | <input type="checkbox"/> Demonstration | <input type="checkbox"/> |

### Assessment Tools:

- |                                    |   |                          |
|------------------------------------|---|--------------------------|
| <input type="checkbox"/> Rubric    | <input type="checkbox"/> Constructed Response | <input type="checkbox"/> |
| <input type="checkbox"/> Checklist | <input type="checkbox"/> Multiple Choice      | <input type="checkbox"/> |
| <input type="checkbox"/> Essay     | <input type="checkbox"/> Peer Review          | <input type="checkbox"/> |