

# IB Inquirer 5



## It's Electric! - Unit 1



### Transdisciplinary Theme:

Sharing the Planet - access to equal opportunities

### Central Idea:

Access to resources influences quality of life.

A study into (lines of inquiry):

- Access to electric power (*connection*)
- How we function with and without electricity (*function*)
- Alternate sources of electrical energy (*responsibility*)

### Background:

After a provocation unit including experiments using electricity & magnets, students will study various forms of electricity. They will investigate the pros and cons of alternative energy sources, and relate these to accessibility - and our rights/responsibilities in sharing these resources.

### Student Final Project:

Students will track the energy usage at Charter Oak. Then, they will work with partner schools from around the world to compare/contrast energy consumption and usage data.

### Technology Tie-In:

Students will use social media to communicate with other students around the world. They will also be working with Ms. Coyne to build their skills in presentation vehicles such as Google Slides, Explain Everything and GoAnimate.

### **Field Experiences:**

Students will do electricity/magnetism experiments with local scientist Mike Caouette. Then, they will visit the Energize CT Center in North Haven; and host Townwide Energy Specialist Catherine Diviney for an informational visit.

### **Learner Profiles & Attitudes:**

Students will be creative thinkers as they investigate alternate energies & possibilities to improve lives. They will be committed to caring about the earth and its future - and use integrity when making decisions about the use of electricity. They will be curious and become knowledgeable about finding global solutions to energy problems.

### **Key Concepts:**

Students will examine how access to energy connects to lifestyle; they will learn the function of the various energy sources; and they will discover their responsibility in utilizing the earth's finite resources.

### **Approaches to Learning:**

Throughout the unit, students will use their self-management skills by working with their class to: plan and organize their energy study and multi-school communication project; use their time effectively; and follow the essential agreements of the group.

They will also use their thinking skills when they think creatively about solving real-world problems through the use of alternative energy sources.

### **TRY THIS!**

- Spend a day with no electricity. What's it like? Write about your experience.
- Come up with a plan for saving electricity at home.
- Read the newspaper together and find articles about alternate energy projects in the news.

### **Websites:**

<http://www.engineeringinteract.org/resources/siliconspies/flash/concepts/buildingcircuits.htm>  
[http://www.bbc.co.uk/bitesize/ks2/science/physical\\_processes/electrical\\_circuits/play/popup.shtml](http://www.bbc.co.uk/bitesize/ks2/science/physical_processes/electrical_circuits/play/popup.shtml)

*PARENTS: Additionally, on the Media Center webpage, for each unit there will be suggested titles for more reading on the topics and ideas in the units. These books are available in the school library.*

# IB AT HOME

Name \_\_\_\_\_

Teacher \_\_\_\_\_

*Parents: please fill out any that apply and return to your child's teacher.*

My child is displaying the **learner profiles** from his/her IB unit (thinking, knowledgeable). Here are some examples:

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Here is how my child is showing the IB **attitudes** (commitment, curiosity, creativity, integrity):

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My child has been demonstrating the **approaches to learning** (thinking, self-management) by:

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My child has taken **action** (additional investigations, trying to make a difference, reading more about the subject, doing an independent project, teaching others, etc.) regarding this unit. Here's how:

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IB Elements that Grade 5 students are focusing on during Unit 1/Sharing the Planet:

Approaches to Learning

**Thinking Skills**



Acquisition of Knowledge  
 Comprehension  
 Application  
 Analysis  
 Synthesis  
 Evaluation  
 Dialectical Thought  
 Metacognition


**Self-Management Skills**



Gross Motor Skills  
 Fine Motor Skills  
 Spatial Awareness  
 Organizational Skills  
 Time Management  
 Personal Safety  
 Healthy Lifestyle  
 Codes of Behavior  
 Making Informed Choices

Attitudes

**Curiosity**



We are curious about the nature of learning. We also wonder about the world, its people, and cultures.

**Commitment**



We are committed to learning, persevering, and showing self-discipline and responsibility.


**Creativity**



We are creative and imaginative in our thinking, and in our approach to problem-solving.


Learner Profiles

**KNOWLEDGEABLE**  
*/ try to learn about a variety of things.*



I explore many different ideas. I can tell you about/show you what I've learned. I am interested in issues that have local and global significance.

**THINKER**  
*/ connect the things I know.*



I am thoughtful and creative. I try to solve problems and make good decisions. I keep persisting if work gets difficult.

**CONNECTION**

**How is it connected to other things?**

We live in a world of interacting systems in which the actions of any individual element affects others.

How is \_\_\_\_\_ connected to \_\_\_\_\_?  
 How is \_\_\_\_\_ related to \_\_\_\_\_?  
 How does \_\_\_\_\_ help us understand \_\_\_\_\_?  
 What are the similarities or differences between \_\_\_\_\_ and \_\_\_\_\_?

**FUNCTION**

**How does it work?**

Everything has a purpose, a role, or a way of behaving which can be investigated.

How important is \_\_\_\_\_?  
 How do they work together?  
 What do we use \_\_\_\_\_ for?  
 Why do we \_\_\_\_\_?  
 How do we use \_\_\_\_\_?  
 How or why does it \_\_\_\_\_?

**RESPONSIBILITY**

**What is our responsibility?**

We are not passive observers of events. We can and must make choices and, by doing so, we can make a difference.

Why is it important to ...?  
 Why should we respect ...?  
 What might be the consequences of ...?  
 Does everyone have the right to ...?  
 How does \_\_\_\_\_ influence our view of \_\_\_\_\_?