Swing!

*This module is designed to help you explore how engineering and simple machines called levers affect your life each day. Sections in blue can be completed during your visit to Discovery Center Museum.*

1. Choose A or B or C and complete ALL the requirements.

   A. Watch an episode or episodes (about one hour total) of a show about anything related to motion or machines. Then do the following:

   1. Make a list of at least two questions or ideas from what you watched.
   2. Discuss two of the questions or ideas with your counselor.

   *Some examples include—but are not limited to—shows found on PBS ("NOVA"), Discovery Channel, Science Channel, National Geographic Channel, TED Talks (online videos), and the History Channel. You may choose to watch a live performance or movie at a planetarium or science museum instead of watching a media production. You may watch online productions with your counselor’s approval and under your parent’s supervision.*

   B. Read (about one hour total) about anything related to motion or machines. Then do the following:

   1. Make a list of at least two questions or ideas from what you read.
   2. Discuss two of the questions or ideas with your counselor.

   *Books on many topics may be found at your local library. Examples of magazines include but are not limited to Odyssey, KIDS DISCOVER, National Geographic Kids, Highlights, and OWL or owlkids.com.*

   C. Do a combination of reading and watching (about one hour total) about anything related to motion or machines. Then do the following:

   1. Make a list of at least two questions or ideas from what you read and watched.
   2. Discuss two of the questions or ideas with your counselor.
2. Complete ONE adventure from the following list. (Choose one that you have not already earned.) Underlined adventures are available as Discovery Center Badge Workshops and/or camp-ins! Discuss with your counselor what kind of science, technology, engineering, or math was used in the adventure.

<table>
<thead>
<tr>
<th>Wolf Cub Scouts</th>
<th>Bear Cub Scouts</th>
<th>Webelos Scouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Away</td>
<td>A Bear Goes Fishing</td>
<td>Adventures in Science</td>
</tr>
<tr>
<td>Paws of Skill</td>
<td>Baloo the Builder</td>
<td>Engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sportsman</td>
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</tbody>
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3. Explore EACH of the following.

A. Levers

1. Find an example of each of the three classes of levers in the museum. Use the diagram above to help you. Label what you found:

   1. ____________________
   2. ____________________
   3. ____________________

2. Why do YOU think we use levers?
B. In the space below, design and sketch ONE of the following. Be sure to show how the lever in your design will move something. (The outdoor Science Park is good place to find inspiration!):

1. A playground fixture that uses a lever
2. A game or sport that uses a lever
3. An invention that uses a lever

C. Discuss your findings with your counselor.

4. Do the following:

   A. Keep a look out for levers as you explore the museum.
   B. Discuss with your counselor the exhibits, equipment, or tools that use levers in the museum.

5. Discuss with your counselor how engineering and simple machines affect your everyday life.

Did you enjoy your visit? Please send your comments, questions, and inquiries about upcoming scout programming to Scouts@DiscoveryCenterMuseum.org