



# Focus on STEM

Each month, we will put together road maps for STEM related achievements or awards to make it easier to integrate STEM into your existing den or pack schedules.



## Cub Scouts: Swing!

1. Read or watch anything related to motion or machines. Make a list of at least two questions about what you watch or read. Discuss at least two ideas with your counselor. *Watch a video on PBS, Discovery Channel or the Science Channel or challenge each scout to read a book about motion or machines by a specified pack date. Break your den/pack into smaller groups to discuss what they've learned.*
2. Complete one belt loop or pin from the following: Badminton, Baseball, BB-gun shooting, Fishing, Golf, Hockey, Mathematics, Softball, Table Tennis, Tennis, Ultimate. *Hold a den or pack baseball game, fishing derby, or table tennis/tennis clinic/tournament. At the end, take some time to discuss the type of lever involved with the motion in your belt loop/pin (requirement below).*
3. Levers: Make a list of the three types of levers. Be able to tell your counselor (1) the class of each lever and (2) how each lever works. With your counselor, discuss (1) the type of lever that is involved with the motion for the belt loop or pin you choose for requirement 2, (2) what you learned about levers and motion from earning your belt loop or pin, and (3) why we use levers. *Use Legos to learn the 3 different types of levers.*
4. Do the following: (A) Visit a place that uses levers such as a playground, carpentry shop, construction site, restaurant kitchen, or any other location that uses levers and (B) discuss with your counselor the equipment or tools that use levers in the place you visited. *Explore a local park (find one close to you using parkgeek.com) or schedule a tour with a fast food restaurant (Chik-fil-A has been open to providing tours), which (with some creativity) could also be tied into the food pyramid achievements at each level.*
5. Do EACH of the following: (A) On your own, design, including a drawing, sketch or model, ONE of the following: (1) a playground fixture that uses a lever, (2) a game or sport that uses a lever, or (3) an invention that uses a lever. (B) Discuss with your counselor how the lever in your design will move something. *Take some time at a den or pack meeting to have the scouts create one of the above or have them use Legos to do one of the above.*
6. Discuss with your counselor how levers affect your everyday life.

## Proposed Time Schedule

### Prep Work

Have your scout watch or read an hour about motion or machines. Scouts should make a list of at least 2 questions about what you watched or read.

### Week 1

Have the scouts build the three different classes of levers using Legos. While the scouts build, ask each one how levers affect your everyday life.

### Week 2

Go see-it: visit a nearby park and have each scout tell you how levers are used. If time allows or as at-home work, have each scout design a playground fixture that uses levers.

### Week 3

Hold a table tennis tournament. Make sure each scout can (1) explain the rules, (2) practices their skills for at least 30 minutes, and (3) plays a game. At the end, discuss the type of lever used.