Ace Toy Company Presents the: ENERGY TRANSFORMATION TOY CHALLENGE

Dear Students,

As President of Ace Toy Company, I am excited to hear that your class is studying energy. I believe your knowledge of energy could help our struggling company! Our sales have been down a little, so we are looking for new and innovative toy products. We would like your assistance in creating a new toy to increase our sales.

So here it is... Ace Toy Company hereby challenges you to design and construct a toy that fits our company's needs. In particular, we are interested in toys that **transform energy** from one form to another in a FUN way. We don't want to give you too many guidelines because we want to see what you can come up with. However, you should know that we only invest money in toys that:

- are original; completely designed and made by you no using other toys
- · use at least one energy transformation, but two transformations would be cool
- are safe and appropriate for kids over 3 years old (so small parts are OK)
- · are reasonably strong and can withstand gentle child's play
- are interesting, colorful, and attract children to play with it

We consider a "toy" anything that grabs a child's attention and does something (or experiences a change) as it is played with. The only limit is your imagination, and we encourage you to "think outside the box". There are tons of possibilities, from simple to complex. (Even simple toys like a hula hoop can be fun.) Be creative, be innovative, and make something you would want to play with!

Be aware that in order to fully complete the challenge, you must present the toy to our Board of Directors. They will be looking for you to discuss exactly how you made the toy, the energy transformation(s) that occur within it, and why you think kids will want to buy it.

We hope you accept our challenge, and we look forward to your presentation.

Sincerely,