



### Can you design the next hot electronic toy or game?

In this assignment you will design a new toy or game that uses what we've learned about electricity, circuits and batteries. . To get you started, Examples of games can be found on my wiki page, but the best designs will be your own creation. Make it out of common materials such as wires, aluminum foil, bulbs, & batteries, etc. Bulbs & buzzers can be found inexpensively at Radio Shack. (Mom & Dad can help you a little, but you should do all of the planning and most of the construction.)

🔗 Your electronic game is due on **Thursday, February 3, 2011**. Bring it to school in a box so it won't be damaged. Label it with your name. If the game is turned in before January 26 you can earn 10 points extra credit=)

🔗 Draw up a plan to show exactly how the game works. (Where are wires, batteries, switches, etc.)

🔗 Game and plan are worth 90 points total.

🔗 You may use a ready-made kit, but be advised that you will lose some creativity points. A rubric is included with this sheet. Check to be sure you've done your best job.

The parent signature on the bottom of this page is worth 5 pts.

| Category             | Excellent 7   | Good 5  | Satisfactory 3  | Needs Improvement 1   |
|----------------------|---|---|---|---|
| Function             | Game functions extraordinarily well, holding up under atypical stress.  | Game functions well, holding up under typical stress.   | Game functions pretty well, but deteriorates under typical stress.  | Fatal flaw in function with complete failure under typical stress.  |
| Scientific Knowledge | Explanations indicate a clear understanding of scientific principles underlying the construction and modifications. | Explanations indicate a relatively accurate understanding of scientific principles underlying the construction and modifications.                       | Explanations indicate a basic understanding of scientific principles underlying the construction and modifications. | Explanations do not indicate a much understanding of scientific principles underlying the construction and modifications. |
| Originality          | Game is unique, not similar to any examples given in class.   | Game is somewhat unique; a variety of an example given in class, but there was an attempt at creative modification to make it better than the original. | Game is made from a kit with some embellishments or very similar to examples given in class.                        | Game is made from a kit with no added embellishments.   |
| Construction         | Great care taken in construction process so that the structure is neat, attractive and follows plans accurately.    | Construction was careful and accurate for the most part, but 1-2 details could have been refined for a more attractive product.                         | Construction accurately followed a plan, 3-4 details could have been refined for a more attractive product.         | Construction appears careless or haphazard. Many details need refinement for a strong or attractive product.              |

Cut on the dotted line and turn into Mrs. Ryan's Bin.

I have read the electronic game requirements and grading rubric.

Parent Signature: \_\_\_\_\_

Student Signature: \_\_\_\_\_