

# ARE DISPOSABLE CAMERAS REUSABLE?

One-time use cameras seem wasteful if you believe that the photo developer at the counter is throwing the camera body away. In actuality, the film companies request these bodies be returned so the parts can be reused. Parts from the camera bodies are used whole, or ground up and melted down to be made into new parts. Kodak and Fuji participate in the recycling of one-time use cameras. Fuji reuses or recycles over 82% of the parts it collects.

Reloaded cameras, however, are one-time use camera bodies that have been purchased by a discounter from the photo developer, loaded with film, relabeled and sold under a different name. These cameras may not work correctly and are not recommended for use by the major film and camera companies.

To collect the needed materials for this lab, contact a local photo developer. You can use any brand of camera body for this experiment. Explain your lab and purpose and request that they save camera bodies for you for a specific timeframe. Kodak provides a preaddressed, postage paid envelope for the photo developer to return the one-time use cameras in. Request that this bag also be given to the class, so you can return the parts when you are finished with the lab, therefore closing the recycling loop. Cameras without a flash will not have a battery or a need for step 4 of the lesson.

For more information on recycling one-time use cameras, check the following websites: <http://www.fujifilm.com/JSP/fuji/epartners/EnvironmentQS.jsp> or <http://www.kodak.com/global/en/corp/environment/kes/pubs/pdfs/OTUCRecycling.pdf>.

## Formulate a Hypothesis:

**Materials:** goggles, one disposable camera, insulated scissors, pencil.

### Procedure:

1. Put on your goggles and tie back long hair.
2. Depending on the type of camera, tear off the paper covering and/or crack open the body of the camera.
3. Take out the battery.
4. **BE VERY CAREFULL DURING THIS STEP!!!** Discharge the capacitor by touching the scissors to it. Do this a few times- until no more sparks fly.
5. Take the pieces of your camera apart slowly and carefully. Look at them to see whether you could reuse that piece and how easy it would be to do.
6. Separate the pieces into piles by color.

### TEKS

Math: 6.3(A,C), 6.10 (D), 6.11 (A), 7.13(A), 8.12(C), 8.14(A)

Science: 6.1 (A,B), 6.2 (A,B,C,D,E), 6.4 (A,B), 7.1 (A,B), 7.2(A,B,C,D,E), 7.4(A,B), 7.14(C), 8.1(A,B), 8.2(A,B,C,D,E), 8.4(A,B), 8.5 (A)

Social studies: 6.7(C), 6.9(A,B), 6.21 (B,C,E), 6.22 (B,C,D,E), 7.20 (C,D), 7.21 (B,C,E), 7.22(B,C,D), 8.20 (C,D,F), 8.28(C,D), 8.30(B,C,E), 8.31(B,C,D)

ELA: 6.4(A), 6.10(A), 6.15(A,B,C,E,F), 6.17(A,C), 6.18(A), 7.4(A), 7.10(A), 7.15(A,B,C,E,F), 7.17(A,C), 7.18(A), 8.4(A), 8.10(A), 8.15(A,B,C,E,F), 8.17(A,C), 8.18(A)



<http://www.kodak.com/global/en/corp/environment/kes/pubs/pdfs/OTUCRecycling.pdf>

## QuickSnap Reuse & Recycle Program



Disposable?  
Think again.

<http://www.fujifilm.com/JSP/fuji/epartners/EnvironmentQS.jsp>

### Answer the following questions and document your conclusions:

1. Make a chart of 10 pieces you found. Indicate whether they could be reused/recycled, and how easy/difficult it would be to do that.
2. Did you notice signs of "clumping", areas of the same material in the same place?
3. What do you notice about different colored piles of plastic? What do you think those colors might tell us? What percentage of each color do you find?
4. Approximately how long did it take you to take the camera apart?
5. Could this time be decreased with the use of machines and sorters?
6. What type of sorting properties could be used?
7. What do you think stores do with these cameras after they develop the film (other than give them to crazy teachers)?
8. What would you want the developers to do if you were the camera company owner?
9. Would the price of one-time use cameras change if all parts were recycled? How?
10. Is your hypothesis correct? How would you change it if it were not correct?
11. What did you learn?
12. Compare your results with results derived using a different hypothesis.

6

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Paul Roberts,  
*The End of Oil*, 2004.

6