

The Green Team

Final Report: The Trash Dash

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Abstract

The following report depicts the design process of four University of Virginia undergraduate students who developed a first-grade lesson plan geared towards recycling in order to combat the widespread lack of education about sustainable practices. The lesson plan includes a short presentation and an activity called the “Trash Dash” which was determined to be the most promising approach based on basic selection criteria developed by the group. The project’s goal was to increase environmental awareness in the Charlottesville area by actively involving and inspiring young students. The project was implemented at Agnor-Hurt Elementary and is considered a success due to its positive impact on the students, both in first-grade and in university.

Introduction

The Problem: The Widespread Lack of Education about Environmental Responsibility in America

According to a 2005 report by the National Environmental Education and Training Foundation (NEEF), only 12% of Americans can pass a “basic quiz on awareness of energy topics,” and 80% of Americans are “heavily influenced by incorrect or outdated environmental myths.” As environmental issues become more and more important in every aspect of our lives, we need an informed public to shape everything from national policy decisions to personal lifestyle behaviors in order to achieve a

sustainable nation. If the American public continues to be ignorant of (and often misinformed about) environmental

issues, we will have no hope of reaching this goal. However, 95% of Americans support environmental education in American schools, according to NEEF, and we have the power to make a change.

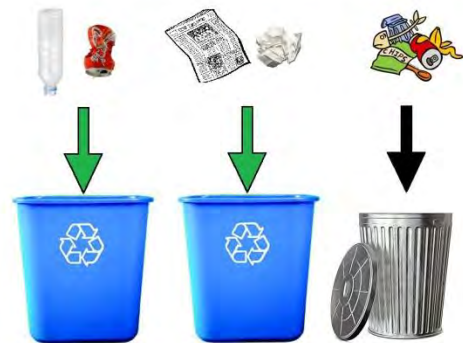


Figure 1. An image from the poster we created to help the children understand how to sort recycling.

In order to combat this problem, we sought to provide elementary education on sustainability, namely recycling, to students in local Albemarle elementary schools. We hope that this effort has made a small contribution to increasing the community's knowledge of environmental issues and its willingness to support environmental sustainability.

Stakeholders Involved

Our community partners and contacts are Ashley Johnson, the senior counselor at Agnor-Hurt Elementary School, and Tim Perry, a former graduate student from the University of Virginia's Curry School of Education. However, the stakeholders include those in all levels of the education system, from the students to the teachers and administrators—they are all affected by the current educational deficit and have all been affected by our chosen solution. Our group, as the people who are going to directly interact with the children, are also stakeholders, as we have gained something from the experience as well. One could also say the families of these children, or even the entire Charlottesville community is a stakeholder, because of their exposure to and positive impact from increased education.

The current condition—a major environmental education deficit—does not positively impact anyone. Everyone would benefit from a solution to the problem: the local ecosystems, the children, their families and the entire community. We have hopefully increased the rate of recycling in the community, which will reduce the waste sent to landfills and waste discarded as litter, therefore improving the quality of life of all members of the community. The possible negative effects are far smaller: we could have accidentally misinformed the children, we could have bored them and caused them to have negative associations with recycling, or we could have simply wasted the children's and the teacher's time. However, because we researched carefully, and because the children were involved in and excited about the activity, we do not believe that any of those consequences will occur.

The gatekeepers for this project include the faculty at the school, because they have the power to allow or restrict our interaction with the children, and our group, who has the ability to directly

impact the education of the students. The powerless include the local ecosystem and its inhabitants and thus it is our responsibility to improve their condition.

Goals and Objectives

In order to successfully increase education and awareness about recycling, every student needs to be engaged in the presentation and to leave class more informed and excited about recycling. Because the children are so young,

much of our focus was on simply creating positive associations with recycling and environmental responsibility. However, we

do hope that the children will start or continue to recycle and that they will convince or encourage their parents and friends to recycle. Ideally, our short sessions with the students would have a ripple effect on the community, causing a small increase in environmental awareness and recycling.

Such a program requires class time dedicated to sustainability, cooperative support from students, teachers, and administrators, and appropriate educational information. Teachers and administrators need us to be respectful and most importantly, actively involve and inspire the students. We had three main goals for our program implantation; we wanted the students to (1) gain the knowledge to correctly recycle everyday items, (2) gain positive associations with recycling, and (3) become more motivated to act responsibly toward the environment.

Approach

Working with Our Community Partners

A major source of advice and encouragement for us was Tim Perry, a former UVA grad student who now teaches full time in South Carolina. We found him through a chain of different contacts that started with Carla, our TA, who helped us get in touch with various professors within the Curry School.



Figure 2. A second image from the poster depicts a worker picking up recycling from homes and offices.

We were lucky to have such a cooperative network of people who were so eager to help us. Once we received an email from Tim, we provided him with some basic information on our project and he replied with some suggestions as we began to develop our lesson plan. When we finally sent him an actual lesson plan, it was the end of the grading period in his district and he was very busy. Even so, he managed to send us a long and detailed email with questions, comments and suggestions.

Tim was most helpful in reminding us to clarify our educational objective: were we trying to teach the kids how to recycle or why they should recycle? We decided that we wanted to do both, with an emphasis on the former. He also suggested that we make the “race” element of the trash dash more educationally relevant by relating it to the urgency of saving the planet—the faster we all recycle, the faster we make the planet better. Another important contribution of Tim’s was his suggestion to emphasize fairness by giving all the children a prize and let the winning team pick first, rather than only rewarding the winning team. He also provided many other small pieces of advice, which helped us in finalizing our lesson plan, such as using a lot of visuals and providing things for the children to touch/handle.

Ashley Johnson, the senior counselor at Agnor-Hurt Elementary, has also been extremely accommodating throughout this process. We contacted Ashley because of her involvement in Cavs in the Classroom, a tutoring program within Madison House, the University of Virginia’s student volunteer organizations. Betsy O’Brien, one of our group members, is the Program Director for Cavs in the Classroom, so she was able to talk to Ashley and see if she was interested in our project. When we first briefed her on our presentation and activity ideas she was very excited and ready to support us. When we had solidified our lesson plan and activity selection, we met with her to confirm the details and dates of the presentations. She agreed to be our faculty sponsor at the local elementary school and organized 2 sessions for us to present to a total of about 85 first grade students. Each session was scheduled to be 30 minutes long, beginning at 11:20 AM on November 22, 2010 and on November 29, 2010.

Unfortunately, a scheduling error was made within the school, and the children had to go on a field trip on November 22. So, we only presented once, to a total of 43 students from two classes. However, we are still grateful for the opportunity to present to just one set of children. Ashley's enthusiasm and willingness to secure us presentation time with other classes were indispensable to our project.

We learned a lot about collaboration through our interactions with Tim and Ashley. With Tim, we had the added challenge of communicating solely through email, but we quickly adjusted by emphasizing important points and asking clear questions to ease communication. They both proved to be very useful resources and we could not have had a successful project without them.



Figure 3. Students raise their hands in response to questions from the presenters.

Conceptualization Process

After input from both Tim and Ashley, we began to develop our final lesson plan. We decided that it would be best to have a short presentation at the beginning of class to emphasize key principles of recycling and follow with an interactive activity. We brainstormed on our own and then as a group and came up with the following potential activities:

Recycled Paper (with bike): This activity allows the children to make recycled paper from discarded scraps, water, and glue. To make the necessary mixture, we would bring in a bike that is connected to a blender (available at UVA) to further illustrate concepts of sustainable energy. After making the mixture, we would help the children to spread it on screens to dry, and the kids could take home the paper at the end of the day. The paper mixture can also be dyed to make it more appealing to the kids.

Recycled Paper (premade): This activity is an alternate version of the original recycled paper activity. To save time, we would make the paper mixture before the presentation, and the rest of the activity would be the same as above.

Puppet Making: The children would create puppets from recycled paper and other recycled products such as toilet paper tubes, paper towel tubes, cardboard, etc. This would allow the children to be creative and bring home something to their parents that would reinforce the idea and excitement of recycling after the activity.

Puppet Show: A related possibility would be to put on a puppet show about the benefits of recycling that we would write and develop using recycled materials for props. The show would create a fun interactive way to get the students to learn about recycling.

Trash Dash: The Trash Dash is a simple activity in which the children are divided into teams and provided with mixed recyclables and trash items to sort as quickly as possible into recycling and garbage bins, respectively. The winning team would get first pick of a small prize, like candy, but everyone would be rewarded for their participation. Our group would collect the trash and recyclables beforehand, ensuring that every piece of trash is sanitary. We would give a short, simple presentation on how to sort the trash before the activity.

Mad Libs: In this activity, our group would create simple stories about recycling with blanks for the children to fill in. We would create poster-size versions of the stories, and we would read the stories aloud to the class. Whenever we reached a blank, we would ask the children to fill it in. The story would incorporate facts about recycling and we would allow the students to fill in different parts of the story with silly words or phrases to make the story more fun and interactive.

Grow a Bean: This activity would be combined with a presentation or another activity—the bean is a take-home project. We would provide each student with a bean in a plastic bag filled with a wet

paper towel. The children could take the bean home, place it in a well-lighted place, and watch it sprout in the weeks to come.

Puzzles/Worksheets: This activity would be combined with a short presentation. Our group would create puzzles and worksheets for the class to complete based on the presentation, which we would help them to complete. We would make the puzzles and worksheets simple and as fun as possible, and we could provide small rewards for completing them correctly. This would also be a built-in measure of the success of our project, since it would test the children's knowledge.

Selection Criteria

We came up with 11 criteria to evaluate our potential activities: Topic Relevance, Low Cost, Time Limit Adherence (30 Min), Interactivity, Lasting Impact, Age-Appropriateness, Feasibility, Teacher Convenience, Safety, Ability to Hold Attention, and Group Convenience.

We designed the criterion of Topic Relevance to ensure that our activities addressed the topic of recycling, incorporating one or more aspects of the process. Some of our ideas, while interesting and fun, were less related to recycling than the others. We wanted the ranking to reflect that negative aspect of those activities.

The criterion of Low Cost was also important because we planned to personally finance the project. Since most of the projects were relatively low cost, we did not think that adding this criterion would restrict our selection process too much.

Adherence to Time Limit was important because our community partner had estimated that we would have only 30 minutes for our presentation. Going over our time limit would cause stress to the teachers and deprive us of the ability to "wrap up" the activity to evaluate and reinforce the children's learning.

We also wanted to consider Teacher Convenience, so that the teachers would be willing to participate and would have a positive experience with the project. Within this criterion, we considered

factors such as whether the project would be messy or would require extra preparation on the part of the teachers.

Safety was an important criterion to us because we are working with children. We had to consider safety in terms of the children getting seriously hurt, but also in terms of the liability for the school and the teachers. Because we wanted to appeal to teachers and schools, even the smallest safety hazards had to be considered.

One of our most important criteria was Interactivity, which largely determines whether the students have a fun and positive experience and how well they internalize the information. We wanted to make sure that the children would not be sitting and listening to a lecture or presentation for the entire class, which would likely bore them and lessen the impact of the activity. Since it is often easiest to “learn by doing,” we want to let the kids do the activity rather than watch it.

Lasting Impact was a criterion we developed to incorporate our thoughts about what the children would take away from the presentation and how it would affect them in the future. Though it is a somewhat subjective criterion, we felt it was important to consider. For instance, projects with a take-home component seemed more likely to us to have a lasting impact beyond the 30 min of the activity than those that did not.

The activities’ Ability to Hold Attention was crucial to our process because it can make the difference between a very effective activity and a waste of time. If the children are not listening, they cannot learn. In that light, we looked for fun activities with a lot of movement, items to handle, and simple information that would not take too long to present.

Age Appropriateness was a criterion we used to ensure that the message would reach the children and would not be lost in a sea of information or in overly complex concepts. On the other hand, we know that children hate to be babied, so we also had to ensure that the presentation was not too

simple or silly for the age group. In order to have the best participation from and effect on the children, we needed to strike the perfect balance in tone and content.

We added the criterion of feasibility to determine if each activity could realistically be implemented. This criterion was a catch-all for all of the factors that were too small or intangible to have their own categories. For instance, some activities were less feasible because they were too complex or they required the cooperation of too many different people or groups.

The final criterion we looked at was Group Convenience, which we used to judge the efficiency with which our time would be spent. Very difficult or time-consuming projects would get downgraded in this category, because they are not as efficient in getting results. We decided to include this category with the thought that a very good, but very difficult activity would still score highest because of the number of other categories to balance Group Convenience. On the other hand, Group Convenience could act as a tie-breaker between two equally good activities.

Design Selection Matrix

Based on the selection criteria listed in the previous section, we scored and then ranked the potential activities that we came up with. Each category was scored 1-5, 5 being the best. We totaled the scores for each activity to determine which approach was the most promising.

Design Selection Matrix

	Recycled Paper (w/ bike)	Recycled Paper (premade)	Puppet Show	Puppet Making	Trash Dash	Mad Libs	Grow a Bean	Puzzles/ Worksheet
Topic Relevance	5	5	4	4	5	4	2	4
Low Cost	3	3	4	4	5	5	4	5
Time Limit Adherence	1	3	5	5	4	5	5	5
Interactivity	5	5	2	5	5	5	4	4
Lasting Impact	4	4	3	4	5	2	3	2
Age - Appropriateness	3	5	5	5	5	3	5	4
Feasibility	1	4	5	5	5	5	5	5
Teacher Convenience	1	3	5	4	4	5	5	5
Safety	2	4	5	4	4	5	5	5
Ability to Hold Attention	5	5	2	4	5	3	3	2
Group Convenience	1	3	3	3	4	5	5	5
Total	31	44	43	47	51	47	46	46

After completing the Design Selection Matrix, the three highest scoring activities were: Trash Dash, scoring 51/55 points; then Mad Libs and Puppet Making, each scoring 47/55 points. Puppet

Making scored 3 or better in each category. This seems like it would be a really fun activity, very cost effective, and the students would get to have fun using commonly recycled materials in a unique way. However, we wanted to provide the students with more than just an arts and crafts activity that they would be capable of doing themselves at home. Mad Libs scored high in the majority of the categories as well; however, it received only a score of 2 in both “lasting impact” and “holds attention”. Although this would be an interactive presentation that would stir up some enthusiasm about recycling, we feel this is how most lesson plans are conducted on a daily basis. We wanted to do something more unique and attention-grabbing to generate some excitement about recycling and to educate the students through an activity, rather than a presentation.

The highest scoring activity was the Trash Dash. It scored a 4 or higher in all of the categories, and most of the scores were 5’s. We were slightly concerned about the safety of the children, because they would be rushing to sort the trash and accidents could occur. However, this type of excitement and potential for accidents is common and almost unavoidable with six and seven-year-old children, so we decided that the small risk was acceptable. We also resolved to give the children specific safety instructions and to make sure that there were no sharp edges on the pieces of trash. The other categories in which the Trash Dash scored 4’s were Teacher Convenience, Group Convenience, and Time Limit adherence. When Ashley approved our idea, we saw that the inconvenience of the project did not seem to be a problem for the teachers. Our convenience was less important, so we ignored the 4 in that category. Time Limit Adherence remained a small challenge that we would have to overcome, because we could not predict how long it will take the children to sort the trash or how much cleanup would be needed. Our strategy was to plan for extra time at the end of the presentation, so that we would not run into class time if the activity took more time than expected. In light of this evaluation, we decided that the Trash Dash was the best option and we began to develop a lesson plan based around it.

Final Design Approach

After completing the design selection matrix and reviewing the top three highest ranking potential activities, we decided to pursue the trash dash as the most promising approach to educate children about recycling in local Albemarle schools. As described above, this activity involves a short presentation to educate the students about proper recycling practices ; for example, which items can be recycled vs. which items cannot be recycled and in which bin a particular item should be placed in based on its material composition (ex. Soda can, cardboard box, water bottle, etc.). As Tim suggested, we passed items around to keep the children involved in this less interactive portion of the activity. We also created two posters to use as visual aids, one that explained the



Figure 4. Two teams of students sorting trash.

basics of recycling and one for the children to sign their pledges to recycle.

Next, we assigned the students to teams of six or seven. Each team was given large bags of mixed recyclables and various trash items for them to sort into their respective bins as quickly as possible (all items were sanitized beforehand for their safety). Once a team finished, we checked their sorting/placement and celebrated with them if it was correct. If it was not correct, we showed them which ones they have sorted incorrectly and let them resort. Surprisingly, almost all of the recycling was sorted correctly. We rewarded all of the children with candy and congratulated them on a job well done.

This activity directly educated children about recycling and creates positive associations with recycling. Because the children did the recycling themselves, they will hopefully feel a sense of pride and accomplishment and be more likely to recycle in the future. In that light, we provided a lot of encouragement and emphasized that they can recycle on their own. Pledge to recycle by signing poster. The hands-on nature of the activity will also help them remember how to recycle better than they would

if they had only watched someone else recycle. Because of these factors and the simple fact that the activity seemed to be fun for the kids, we believe that it will have a positive impact on the children's recycling attitudes and practices.

Timeline

September-Early October: Problem identification, brainstorming, preliminary contact with mentors

Wednesday, October 6: Team Problem Statement completed, criteria for appropriate solution determined

Mid-October: Brainstorming solutions, continuing talks with community partner

Wednesday, October 27: Team Conceptual Design completed, final activity selected

Early November: Creation and adjustment of lesson plan, determination of dates and times for presentations, collection of trash items

Tuesday, November 15: Preliminary Design Report completed, lesson plan finalized

Thursday, November 18: Sanitize and organize all collected items into large bags, check supplies, review and flesh out lesson plan

Sunday, November 21: Practice final run-through of our presentation and activity

Monday, November 22: First presentation (canceled due to field trip)

Monday, November 29: Second presentation

Wednesday, December 1: Review Preliminary design, determine necessary changes and each member's assignment for the Final Report

Sunday, December 4: Compile and edit Final Report

Saturday and Sunday, December 11/12: Write and practice Final Presentation

Thursday, December 16: Final Presentation

Documentation and Assessment

Documenting and Disseminating Our Experiences

During the presentation, our Community Partner took several photos, some of which are included in this paper. We also outlined our lesson plan so that we can give our information and research to the teachers at Agnor-Hurt for them to use them in years to come. We plan to upload the outline and the pictures onto the class website so that they can be used by interested educators searching online.

Definition of Success

Our three main goals for the children at the beginning of the project were that they (1) gain the knowledge to correctly recycle everyday items, (2) gain positive associations with recycling, and (3) become more motivated to act responsibly toward the environment.

Because the second two goals have to do with the children's attitudes and are therefore difficult to test, we only formally evaluated completion of the first goal. We reviewed how the Trash Dash items were sorted and made sure that they were placed in the correct bins. The success rate was very high, with almost every piece of trash correctly sorted. We also asked the students some questions about recycling before the activity, then repeated the process at the end to see what they had learned. At the beginning of the presentation, the children's knowledge of recycling was spotty. At the end, they correctly answered specific questions about recycling, and even knew to take off bottle caps before recycling plastic bottles. We consider the first goal accomplished, at least in the short term.



Figure 5. Students celebrate as they finish the trash dash.

For the second goal (positive associations with recycling), we had to use more subjective criteria. Primarily, we tried to see if the children were having fun during the activity, hoping that having fun would make them like recycling. It did seem that the children were having fun; they were eager to answer questions and participate. Every student sorted at least one piece of trash without prompting, so they seemed enthusiastic about the activity. We hope that this positive experience will be permanently associated with recycling for the students.

The third goal (increased motivation to be environmentally friendly) was also difficult to evaluate. However, we had the children pledge to recycle by signing an “I love recycling” poster, and they were enthusiastic about the idea. So, we feel that our goal was accomplished, at least temporarily.

Conclusion

A strategic decision of our group was to attack the problem at its most basic levels. We wanted to have a long term impact, so we decided to go with a concentrated approach: stay local, stick with the fundamental building blocks and ideas, and spread the message towards youth, because they control the future. So far we have simply laid the foundation for future successes. By concentrating so much effort on a single presentation and lesson plan, we were able to fully think through the benefits of all plausible routes of actions. From this, we believe the product that we ended with is an optimal lesson plan for our audience that we hope will be adopted by others for years to come.

We were very careful about overextending ourselves and sacrificing a strong impact on few for a minimal impact on many. The idea was the cement strong beliefs in this group of students and let these ideas spread in the form of familial, social, and other interactions, letting the students become the teachers in their daily lives. There still remains the barrier of time, as this was only a semester long excursion on our part. There is the question as to whether or not the children will be excited or willing to

share what they learned or treat it as their own and take pride in knowing they recycle and others do not. It is yet to be seen if more educators will choose to use our lesson plan, but, if so, the possibilities for impact are endless. Support is also a crucial but uncertain component. We were fortunate to find a community partner who was as passionate about the topic as we were, but this is not always the case, so it may be hard to convince others to take the time to present similar ideas.

During our presentation, every student participated in the trash dash. This was a way for us to assess the job we had done. By watching the students successfully sort recyclables from trash, answer recycling questions correctly, and pledge to recycle in the future, we determined our project a success in the short term. In the long run, as with all efforts towards sustainability, the work is never done. An end was not the goal for us, but an addition, an improvement, an impact; all things we are confident we made.

Future Work

Now that our main presentation is finished, there are few things we hope to do to continue our work. We will send our lesson plan to Agnor-Hurt Elementary School. This will hopefully allow them to continue this lesson in future years and perhaps with different grade levels as well. We also plan to post our lesson plan online. We found helpful resources during our project from online lesson plans and hopefully our lesson plan will be helpful as well in the continuation in recycling education. This is something one person on our team can do with minimal resources – just emailing the lesson plan to Ashley and uploading our lesson plan online.

Lessons Learned

This project helped us understand how to correctly formulate and implement a project. However, we did hit some road bumps on the way. One of our first contacts, Principal Vernon Dock of Johnson Elementary, said he was very interested and then never responded to our numerous emails. We finally chose to just work with Betsy's contact, Ashley Johnson at Agnor Hurt Elementary School.

Another issue we had was that we had originally scheduled two sessions with Agnor-Hurt Elementary School so we could work with different groups and compare what worked and what didn't. However, there was a miscommunication during the first session and the children were on a field trip.

Unfortunately, we could not reschedule the first presentation because of exams, so we had to make do with one presentation. We made sure to thoroughly prepare for the second presentation so we could give the children the best presentation possible and make the greatest possible impact in the 30 minutes allotted to us.

We learned a lot about how to reach people, especially children. One of our most important lessons was in the usefulness of positive association. By getting the children excited about recycling, it hopefully increased their motivation for recycling in the future. We did not deviate significantly from our initial plan except that we decided to focus on one main activity, the trash dash, because of time constraints. Since the presentation was a great success, we would do little differently if we did this project again. The most important change we would make would be to contact more schools and try to set up more presentations, because our impact was severely limited by only giving one presentation.

Acknowledgements

The Green Team would like to thank Ashley Johnson for her invaluable role in getting us class time, her guidance, and her enthusiasm for our project.

We would also like to thank Tim Perry for his detailed advice and guidance during our planning stages, to which our presentation owes much of its success.

Lastly, we would like to thank our professors, Paxton Marshall and Phoebe Crisman, and our Teaching Assistant, Carla Jones. Without their unique class and all of their encouragement to make a real change in our local community, we would never have even begun this project. We are grateful for all of their advice and support throughout our process.

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Photographs by Ashley Johnson. All other figures by Elizabeth Lagerfeld.*

*Credit for original images used in composition of figures to iStockphoto and Microsoft Clipart.

Appendices

Appendix A: Budget and Funding

Many of the supplies we needed were free. For the sanitized trash, we collected the most sanitary trash at our apartments and cleaned it ourselves. The next item we needed was a set of bins for the children to use to sort the trash. Facilities Management kindly loaned us several of the standard bins used for recycling in dorms at no cost to us.

The items we did purchase were relatively cheap. The poster board and markers we used to make our posters cost \$5.51 on these purchases. We also purchased enough candy for approximately 86 children, which we cost \$5.22. Finally, transportation to and from the school at 10 miles per round trip cost about \$1.50 in gas money, bringing our total expenses for the project to around \$12.

As a group, we have decided to split this cost amongst ourselves to contribute to the success of the project and provide the students with a memorable learning experience. Each group member contributed \$4 to the "Green Team Fund" to buy all necessary supplies.

Appendix B: Lesson Plan

Reduce, Reuse, Recycle!

Lesson Plan by Betsy O'Brien, Liz Lagerfeld, Stephen Locatelli, and Hannah Bindig

The lesson is designed to be about 20-30 minutes long and consists of a short presentation followed by an activity called "Trash Dash," described below. The presentation we gave was to first grade students, but the activity could be adapted for older students by providing more detailed information about recycling.

- **Materials**
 - Three bins or bags for each group of 4-5 children, one for plastic and cans, one for paper, and one for trash
 - Mixed trash and recycling, cleaned and separated into bags, one for each group
 - Optional: poster or other visual aid, extra "clean trash" for children to handle during the presentation
- **Presentation**
 - Ask questions about recycling
 - Do you recycle?
 - Do you know what recycling is? Etc.
 - Provide some facts about recycling and trash—here are some that we came up with.
 - Even though we're not the biggest country in the world, we throw away the most trash!
 - An average family of 4 throws away 2 thousand pounds of garbage each year. That's two elephants!
 - All that garbage causes pollution in our water and air (makes it dirty), and every time we have to make a new bottle, can, or piece of paper, we create even more pollution.
 - You could also give some specific facts about each type of recycling if you have time
 - (So, that's why we) Reduce, Reuse, and Recycle
 - Explain what each word means and provide an example
 - So how does recycling work?
 - Step 1: Workers collect recyclable items from recycling bins in schools, houses, and offices. It's really important for everyone to put their recycling in a separate bin, because otherwise it will just get thrown away with the trash.
 - Step 2: Workers clean the items and sell them to manufacturers. (Explain what manufacturers are).

- Step 3: Manufacturers make the used items into new recycled products and sell them again.
- Step 4: People buy recycled products. When someone is done using a recycled product, they can put it back in the recycling bin and the whole cycle can start again.

- **Trash Dash**

- Explain how to sort recycling
 - Give examples of trash: Styrofoam, food, etc. Make sure they know where each item in their bag should go (this will depend on the types of trash you have.)
- Let the children know that helping the environment is urgent, so in this game they are going to race to see who can sort the recycling correctly in the least amount of time
- Divide the children into teams of 4 or 5
- Give each group a bag of mixed trash and recycling, along with three containers
- Have the children race to sort the trash
- After each team is finished, point out their errors and let them re-sort
- Reward all of the children for a job well done, perhaps with something special for the winning team (getting first pick at the candy, for example).
- If possible, make the reward recycled or recycling-related in order to reinforce the message