2011

Hector's Helpers Program: Project Compendium

Hector's Helpers

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Super Hector
NEEDS A SUPER YOU!

HECTOR’S HELPERS PROGRAM
Preface

The Final Project Report reflects activities and accomplishments that occurred during the course of the Task Agreement within *BLM Youth Initiative Hector’s Helpers: Youth Combating Litter and Desert Dumping*. The project was funded by the Department of Interior, Bureau of Land Management (BLM) Nevada State office, on behalf of the University of Nevada Las Vegas (UNLV). The agencies have jointly worked together for several years under the Great Basin Cooperative Ecosystems Studies Unit (GBCESU) master agreement FAA060058 in order to develop a strategic plan to combat litter and desert dumping.

The Hector’s Helpers program provides an opportunity to bring environmental education and foster a sense of stewardship to students. Through hands on curriculum students learn general environmental concepts such as community, conservation, recycling, and litter prevention. During the program, students have access to Geographic Information Systems to prevent litter and desert dumping. The students also participate in a marketing campaign for the Adopt-A-Block initiative and execute a litter clean-up.

Hector’s Helpers program began with the Southern Nevada Agency Partnership which is comprised of the Bureau of Land Management, U.S. Forrest Service, Fish and Wildlife Service and the National Park Service. This agency partnership, *Don’t Trash Nevada*, declared a need for an Anti-Litter and Desert Dumping program for our public lands for Southern Nevada. The Hector’s Helpers program was set to educate and involve youth.

Our goal is to help students foster a sense of social responsibility and respect for the environment, and to enrich their learning experience. By participating in the Hector’s Helpers program students are not only making a difference for themselves, but for their school and community as well.
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Curriculum Guide
Marketing Materials
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HECTOR’S HELPERS

EXECUTIVE SUMMARY

The Don’t Trash Nevada Hector’s Helpers project brings a real world, project based learning to students. The curriculum provides environmental education that builds civic action skills among young people. Each participating school receives a once a week curriculum with an instructor and transportation for a litter clean-up field trip.

The program is flexible, and can run from 2 weeks up to 14 weeks. Hector’s Helpers has the option to be delivered as part of an existing class or as an after school program. Students engage in activities related to a variety of environmental concepts such as conservation, civic action, recycling and litter prevention. In addition, they participate in team-building, leadership and community outreach activities. Reflective journaling during each session also provides an opportunity for students to improve writing skills.

In the course of Hector’s Helpers program, students have access to Geographic Information Systems (GIS) technology. Through the use of GIS we hope to encourage community members to collect data and prevent litter and desert dumping. Students also take part in a marketing campaign for the Adopt-A-Block initiative. By participating in the Hector’s Helpers program, students learn how to protect the public lands in Southern Nevada.
BACKGROUND INFORMATION
BACKGROUND AND HISTORY

Collaborative Participants

The start of the Hector’s Helpers program began with the Southern Nevada Agency Partnership which is comprised of the Bureau of Land Management, U.S. Forest Service, Fish and Wildlife Service and the National Park Service. This agency partnership, Don’t Trash Nevada, declared a need for an Anti-Litter and Desert Dumping program for our public lands for Southern Nevada. Within the Don’t Trash Nevada brand a priority was set to educate and involve the youth of Southern Nevada. A mascot naming contest was held for the big horn sheep, and an elementary school student suggested HECTOR (Help Every Child Treasure Our Resources). Subsequently, curriculum built featuring anti-litter and desert dumping has been termed the Hector’s Helpers program.

Many of the successful collaborations that the Don’t Trash Nevada team became involved with grew from meetings that were a direct result of a concerned citizen. A woman who resided on the northwest side of the Las Vegas Valley was bothered and concerned with the disrespect of land around her home. There was continuous illegal dumping on the public and private parcels of vacant land and she wanted to do something about it. Her calls to the County Commissioner resulted in the Councilman’s Liaison hosting a series of meetings with the various local agencies that had jurisdiction in the area.

In addition to members of the Don’t Trash Nevada team, the meetings included the Clark County District C Councilman Liaison, Southern Nevada Health District (SNHD) staff, a Clark County Code Enforcement officer, officials with the Clark County Division of Air Quality and Environmental Management (DAQEM), a member of the Regional Flood Control District, and a representative from the McCarren International Airport.

Based on the success of these meetings the councilman’s liaison recommended Don’t Trash Nevada for inclusion in the City of Las Vegas’ task force to develop an affiliate of Keep America Beautiful. The Don’t Trash Nevada project manager was sent as the representative. The task force is composed of representatives from Republic Services, the Nevada Department of Transportation, the Southern Nevada Water Authority, the Adopt a Highway council, the Nevada Conservation League, the Bank of Nevada, UNLV Rebel Recycling, the City of Las Vegas Neighborhood Services and the City of Las Vegas Code Enforcement.

In addition to the partnerships between city, county, and federal agencies, Hector’s Helpers has developed a partnership with schools in Clark County. The first school in the 2010-2011 year was West Career and Technical Academy. Hector’s Helpers worked with approximately 150 sophomores and freshman from the academy, a brand new high school whose emphasis on education is through science and technology. The Hector’s Helpers program worked with these students to help identify how information systems and GIS is used in the tracking of and
maintaining of illegal desert dumping spots in southern Nevada. At Hector’s Helpers we plan on expanding our program to other Clark County schools.

**Strategic Plan**

During the first quarter of 2010, the Bureau of Land Management applied for and received Youth Initiative funding to assist with the development of the anti-litter program. We were granted funds to hire staff to work with local students and teachers. Selected classes in the Clark County School District would engage in environmental/anti-litter education and develop an anti-litter themed project.

The Interagency Anti-Litter Team chose “Hector’s Helpers” as the overall name for the youth initiative campaign. Hector’s Helpers would represent the brand identity.

In efforts to develop a GIS database, members of the team met with scientists to assist in developing the curriculum for the Hectors Helpers program. The curriculum would provide students with knowledge, skills and abilities in developing a GIS community based monitoring program. It would contain reusable learning objects and activities which can be applied to a wide variety of monitoring programs beyond that of desert dumping such as urban forestry, trail signage, etc.

**Collaborative Actions**

The Hector’s Helpers Youth Initiative project continued development and delivered with the Clark County School District. We recruited West Career Technical Academy and Roy Martin Middle School to participate in the program. Along with the recruitment of students, we enlisted teachers/advisors for each youth group. Two graduate assistants were also assigned to the project; one with West Career and Technical Academy and the other with Roy Martin Middle School. Each participating school received a visit from a graduate assistant once a week to conduct the Hector’s Helper lesson of the day. Lessons were held for one and a half hours either during or after school.
Hector’s Helpers Program Planning

**Strategies**
Develop an after school program to bring environmental education and foster a sense of stewardship to students. They will learn general environmental concepts such as civic engagement, conservation, recycling, and litter prevention.

**Assumptions**
The environmental awareness program will work in the community because people will be more receptive to youth addressing the litter and desert dumping problem than if the appeals came primarily from government employees. In addition, civically engaged children will turn into civically engaged adults and improve our future.

**Influential Factors**
From 1997 to 2008, the population of Southern Nevada’s Clark County grew by 774,338 people. The increase of the population has increased the amount of litter and desert dumping. There are laws in tact to enforce the illegalization of desert dumping. The don't trash message needs to spread out among the masses in Southern Nevada.

**Problem or Issue**
In Southern Nevada, litter and desert dumping are a perpetual problem; it disrupts wildlife and is a blot on the landscape. The community in Southern Nevada needs to come together and conserve its lands.

**Community Needs/Assets**
In 2008, the Southern Nevada Health District responded to 1,611 illegal dumping calls in the first nine months of 2008 compared to 1,640 in all of 2007. The Southern Nevada Agency Partnership (SNAP), an affiliation of federal land professionals, continuously drives the protection, conservation and use of the federal lands of Southern Nevada.

**Desired Results**
Increase community involvement in the conservation of public lands in Southern Nevada. Use the after school program to instill civic engagement in the minds of students. As a result of student education, environmental responsibility will spread throughout the community.
Litter Reduction Required for Influences Community Involvement

Instructors Made by Adopt-A-Block Civic Engagement

Required for growth of Curriculum

HECTOR’S HELPERS

Collaboration Leads to Classroom

Centralized Funding

Contribution

Youth Marketing

Monitoring

Partnerships

BLM

SNAP

City LV

DAQEM

SNHD

KLVB

CCSD

PLI

Middle to High School

Honor Society

20-30 Students

Disadvantaged

Instructors

GA’s

Teachers

Field Trip

Clean-Up

Adopt-A-Block

Community Involvement

Required for growth of

Clean-Up

Transportation

Leadership

Technology

GIS

Podcasts

Earth Force

Anti-Litter & Desert Dumping

Community/Stewardship

Recycling

Honor Society

Disadvantaged

Middle to High School

Students

Cater to

Honor Society

Instructors

Field Trip

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Podcasts

Earth Force
CURRICULUM GUIDE
PROGRAM PURPOSE

The purpose of the Hector’s Helpers program is to educate youth about the dangers of littering and illegal dumping in Southern Nevada. This, in turn, should foster a sense of stewardship amongst students and inspire them to discourage others from trashing our state. One method of litter reduction is by means of GIS technology to track desert dumping on public land. Through Hector’s Helpers, students are trained to use GIS. After proper training, students are able to make suggestions on ways to involve community members in GIS data collection. Students also reach out into the community by developing a marketing campaign for the Adopt-A-Block Initiative. Hector’s Helpers students are able to reach a diverse audience outside our initial scope.

PROGRAM DESCRIPTION

Recruitment

We recruited Roy Martin Middle School and West Career Technical Academy to participate in the program. Along with the recruitment of students, we enlisted teachers/advisors for each youth group to chaperone will our Graduate Assistants lead in the instructions. In order to facilitate school groups, we collaborated with participating Clark County School District (CCSD) faculty on any needed revisions of the pilot tested curriculum.

Figure 1 shows locations of participating Clark County Schools
We delivered our curriculum to CCSD classes. The fourteen week curriculum is based on relaying a sense of stewardship to students through the teachings of anti-littering and desert dumping combined with the concepts of leadership, teamwork, and communication. In addition, we plan on providing guest speakers, such as park rangers, to enter the classroom. The curriculum will result in the production of at least one anti-litter and desert dumping podcast per classroom. Students prefer hands-on learning with access to live equipment and applications, thus, producing a podcast in the classroom should be a popular learning tool among the students.

![Learning Methods](image)

**Figure 2 shows learning method statistics provided by Toolwire**

**Classroom Activity**

Each participating school received a visit from a Don’t Trash Nevada Graduate Assistant once a week to conduct the Hector’s Helper lesson of the day. This 14 week enrichment program was based on our own curriculum combined with Earth Force’s project-based environmental education. Lessons were held for an hour and a half either during or after school.

In the classroom, students learned about environmental issues ranging from: littering, desert dumping, environmental ethics, public lands, and climate change. In addition, they will engage in student development lessons that include team-building, leadership, and message evaluation. The students improved their writing skills through weekly journal entries. During this time, they also participated in a key project. Each class created a project designed to prevent or increase awareness of the litter and desert dumping issue in Southern Nevada.
Students themselves chose the class project, and ideas included a Podcast, graphic novel, Text to Speech cartoon, video, or a student panel discussion with city policy makers.

The benefits of our Hector’s Helper program include student learning with hands-on experience. In addition to traditional lecture students conduct case studies, experiments, and games to enhance their learning experience. Through the program students should improve their academic skills, communication, team-building, and critical-thinking. It will build their self-esteem and develop their sense of community.

**Field Work with GPS Units and Classroom Work with GIS Databases**

Approximately 60 students from West Career and Technical Academy were enrolled in a GIS elective class for an entire school year. Students continuously learned about different components of GPS and GIS databases. Through hands on experiences on campus, students were able to gain a strong understanding of GIS.

GIS students at WCTA continued throughout the school year working on different GIS projects. This included situational projects of how GIS can be used in federal agencies and for the protection of public land. This quarter included the process and planning for next year’s curriculum. It was discussed that some of the students will be enrolled in a GIS for a second year, and that there will be a whole new class with no experience with GIS. Discussions of what two levels of instruction will be implemented at West CTA and how the Hector’s Helpers program can be involved.

**Adopt-A-Block**

Students in WCTA’s marketing program developed marketing campaigns with emphasis on different target markets. The purpose of addressing different targets, allows for information to be distributed to different audiences to gain interest in protecting public land through the idea of adopting a parcel to watch. Students were able to make a formal presentation to the community through a school showcase of their projects. Community members, community partners, parents, school district members, and educators came to West CTA to view the students’ final projects. With over 300 in attendance, students described their projects, their target markets and showcased their final projects.

**Development of Materials for an Adopt-A-Block/Parcel Handbook**

Now that the GIS students have a better understanding of how GIS is used in everyday situations, students will made suggestions on how to involve community members and get them actively participating in simple GIS data collection practices.
Field Trips
In the course of the Hector’s Helper program, we coordinate field trips to Bureau of Land Management land. Our department schedules the bus transportation, port-a-potties, and dumpster rental for the field trips. While at the location, students can visualize first-hand the effects of littering and desert dumping has on wildlife. Moreover, students will learn how to conserve the environment, and should gain a greater appreciation for it.

Sample Field Trip Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am</td>
<td>Prep site – get cameras ready – walk site for safety</td>
</tr>
<tr>
<td></td>
<td>School prep – give students overview of day – introduce project expectations</td>
</tr>
<tr>
<td>8:30 am</td>
<td>STUDENTS will leave High School</td>
</tr>
<tr>
<td></td>
<td>Meet at school to meet group and do some pre-site questions. Walking Tour overview.</td>
</tr>
<tr>
<td>9:00</td>
<td>Brief orientation, groups assigned, pass out cameras, flip cameras, SAFETY</td>
</tr>
<tr>
<td>9:00-10:10</td>
<td>PAST – First Rotation: Up the Mountain Trail</td>
</tr>
<tr>
<td></td>
<td>• Interpretative hike of mountain</td>
</tr>
<tr>
<td></td>
<td>• Sketch what you see. What do you think this area use to look like?</td>
</tr>
<tr>
<td></td>
<td>• Use notes from interpretative hike – on Dr. Rowland website</td>
</tr>
<tr>
<td>10:15-11:20</td>
<td>FUTURE – Second Rotation: The Wash</td>
</tr>
<tr>
<td></td>
<td>• What is a wash? Sedimentary layers – document what you see?</td>
</tr>
<tr>
<td></td>
<td>• What kinds of trash did you find? Why should people not litter?</td>
</tr>
<tr>
<td></td>
<td>• Mapping the area – using the compass</td>
</tr>
<tr>
<td></td>
<td>• GPS where the trash is that you find</td>
</tr>
<tr>
<td>11:20-11:50</td>
<td>Lunch</td>
</tr>
<tr>
<td>11:50-1:05</td>
<td>PRESENT – Third Rotation: Walking Tour (Tortoise and other animals of the desert &amp; wash information)</td>
</tr>
<tr>
<td></td>
<td>Geology and the present</td>
</tr>
<tr>
<td></td>
<td>How does the geology rate to the animals and plants?</td>
</tr>
<tr>
<td></td>
<td>What are some native plants and animals in this area?</td>
</tr>
<tr>
<td></td>
<td>Walk by the wash and look for fossils.</td>
</tr>
<tr>
<td>1:05-1:15</td>
<td>Fourth Rotation: All students</td>
</tr>
<tr>
<td></td>
<td>Discussion, review of day so far and importance. Wrap up, complete journaling</td>
</tr>
<tr>
<td></td>
<td>• What data was collected?</td>
</tr>
<tr>
<td></td>
<td>• Why is important to collect data?</td>
</tr>
<tr>
<td></td>
<td>• Why is the great unconformity important?</td>
</tr>
<tr>
<td>1:15</td>
<td>Leave Field Trip Site</td>
</tr>
<tr>
<td>2:00</td>
<td>Return to High School</td>
</tr>
<tr>
<td>Week 1</td>
<td>Question</td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
</tr>
</tbody>
</table>
|        | Why do I care about the environment, littering, and recycling? | Students gain a sense of personal responsibility for the environment. They will see the costs of littering and the benefit of recycling. | - Introduce purpose of course  
- Ask the class about a special place  
- Environmental Citizen handout  
- Inspirational local story  
- Presentation about recycling/littering  
- Recyling quiz  

| Week 2 | How to establish team building? | Learn the importance of team building and develop group skills. | - Presentation about team building  
- Interactive team building exercises  
  - Human Knot Game  
  - Labels Head Game  
- Inventory of their community  
- Journal: Write down observations of a littered area in your community. | N.8.A.7 |

| Week 3 | What is leadership? | Introduce the main principles of leadership and the class will choose their littering/dumping issue. | - Presentation about leadership  
- Leadership quiz  
- Leadership style skits  
- Decide on class issue with selection grid worksheet  

| Week 4 | How do I communicate and motivate others to change? | Understand the keys to effective communication and marketing techniques. Differentiate between policies and practices. | - Presentation about communication and motivation  
- Impromptu speeches  
- Policies & practices handout  
| Week 5 | What is the Southern Nevada Agency Partnership (SNAP)? | Connect to Southern Nevada's public lands, animals and plants. Help students recognize the stakeholders involved with their selected issue. | - Presentation of SNAP & Careers  
- Pass out brochures of all four federal answers to questions  
- Stakeholder Web worksheets  
|---|---|---|---|---|
| Week 6 | What is environmental ethics? | Develop students with a positive environmental ethics and motivate them to take desirable actions. Begin ant-litter and dumping project. | - Hand out student field trip permission  
- Presentation about environmental ethics  
- Case study activity  
- Course of Action worksheet  
- Journal write an environmental code of ethics for your family | N.12.B.2 |
| Week 7 | How can I take action? | Effects of trash on wildlife activity. | - Trash clean-up  
- Guided exploration | N.12.B.2 |
| Week 8 | What is a podcast? | Learn about podcasts and how it is used to inform and influence a greater audience | - Presentation about podcasts  
- Listen to clips of podcasts on web  
- Introduce podcast project  
- Action Planning worksheets  
- Journal: Brainstorm ideas for podcast project | N.8.A.5/N.12.B.1 |
| Week 9 | How to write a podcast script? | Improve writing skills. | - Research topics for podcast  
- Write scripts for podcast | N.8.A.3 |
| Week 10 | How to edit a podcast script? | Strengthen editing techniques. | - Students edit podcast scripts  
- Groups listen and give feedback on how to improve the quality of writing | N.8.A.2 |
| --- | --- | --- | --- | --- |
| Week 11 | How to create a podcast? | Use technology to produce podcasts to promote public lands in Southern Nevada from a student's point of view. | - Teach how to create podcast project  
- Students work in computer lab on podcasts | N.8.A.5/N.12.B.1 |
| Week 12 | How to create a podcast? | Use technology to produce podcasts to promote public lands in Southern Nevada from a student's point of view. | - Students continue to work in computer lab on podcasts | N.8.A.5/N.12.B.1 |
| Week 13 | How to give a presentation? | Improve public speaking skills and listen to diverse student ideas. | - Students introduce their podcast and then present it to the class | N.8.A.3 |
| Week 14 | What have you learned? | Celebrate the last day by eating pizza while watching an environmental responsibility film. | - Give pizza to students  
- Watch environmental stewardship film  
- Students discuss what they learned over the program | N.12.B.2 |
Marketing Materials
About the Program

The Don’t Trash Nevada Hector’s Helpers project brings a real world, project based learning curriculum to students. The curriculum provides environmental education that builds civic action skills and fosters a sense of stewardship among students.

We supply a once a week hands-on curriculum with an instructor which includes a litter clean-up field trip. The flexible program can run from 2 weeks up to 14 weeks and can be delivered as part of an existing class or in an after school setting.

Students engage in activities related to a variety of environmental concepts such as conservation, civic action, recycling and litter prevention. In addition they participate in team-building, leadership and community outreach activities. Reflective journaling during each session also provides an opportunity for students to improve writing skills.
Join The Environmental Science Club

Date: ______________________
Time: ______________________
Room: ______________________

⭐️ Snacks and Drinks Available ⭐️
You Are Cordially Invited To

West Career & Technical Academy’s

“Go Green and Clean”

- View Project Based Learning in Action
- Vote for Student Marketing Campaigns
- Volunteer for Desert Clean Up
- Adopt a Desert Parcel

Date: December 14th

Time:
  Showing 1: 1:30 PM to 3:30 PM
  Showing 2: 5:00 PM to 7:00 PM

Place: West CTA Cafeteria
11945 West Charleston Blvd.
Las Vegas NV 89135
Results & Accomplishments
## RESULTS

<table>
<thead>
<tr>
<th>Task</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Hector’s Helpers Curriculum</td>
<td>✓</td>
</tr>
<tr>
<td>Recruit Clark County Schools</td>
<td>✓</td>
</tr>
<tr>
<td>Educate students about littering and desert dumping</td>
<td>✓</td>
</tr>
<tr>
<td>Encourage environmental stewardship</td>
<td>✓</td>
</tr>
<tr>
<td>Train students on Geographic Information Systems (GIS)</td>
<td>✓</td>
</tr>
<tr>
<td>Student suggested methods to encourage GIS tracking of litter and desert dumping on BLM land</td>
<td>✓</td>
</tr>
<tr>
<td>Students develop Adopt-A-Block community marketing campaign</td>
<td>✓</td>
</tr>
<tr>
<td>Clean-up field trips on BLM land with bus transportation and needed supplies</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Field Trips Report 2010-2011

<table>
<thead>
<tr>
<th>School</th>
<th>Date</th>
<th>Location</th>
<th>Yards of Trash Collected</th>
<th># Roll Offs</th>
<th># Port-A Potties</th>
<th># Busses</th>
<th># Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Career Technical Academy</td>
<td>9/22/10</td>
<td>Red Rock National Conservation Area</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>60</td>
</tr>
<tr>
<td>West Career Technical Academy</td>
<td>9/23/10</td>
<td>Red Rock National Conservation Area</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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<td>West Career Technical Academy</td>
<td>10/22/10</td>
<td>University of Nevada, Las Vegas</td>
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<td>West Career Technical Academy</td>
<td>2/5/11</td>
<td>Sloan Canyon</td>
<td>60 cubic yards</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Bailey Middle School</td>
<td>2/15/11</td>
<td>Great Unconformity</td>
<td>4 cubic yards</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>60</td>
</tr>
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<td>Valley High School</td>
<td>2/23/11</td>
<td>Great Unconformity</td>
<td>n/a</td>
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<td>0</td>
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<td>Bailey Middle School</td>
<td>4/5/11</td>
<td>Great Unconformity</td>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>43</td>
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<td>Roy Martin Middle School</td>
<td>5/5/11</td>
<td>East Las Vegas Site</td>
<td>6 cubic yards</td>
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ACCOMPLISHMENTS

**West Career Technical Academy Project**

Approximately 150 freshman and sophomores at West Career Technical Academy High School benefited from the Hectors Helpers Program in the 2010-2011 school year.

**Anti-Litter/Desert Dumping Marketing**

Fifteen student groups developed marketing campaigns for two target markets. Their campaigns included the creation of flyers, brochures, commercials, and infomercials. Students utilized their personal experiences, Hectors Helpers curriculum, and their field trip to BLM land to create their campaign. They showcased final projects to their classmates, teachers, family, and community in an event on December 14, 2010. Over 300 attendees came and voted on the most creative and catching marketing campaign. Get Outdoors Nevada, the Interagency Volunteer Program for the Southern Nevada Agency Partnership, used one of the student group’s ideas, *Pick Up Your Shoot*, to promote a clean-up in Sloan Canyon on February 2, 2011.

**Management Information Systems (MIS)**

1. Students from the MIS program were given the opportunity to develop a form for the Don’t Trash Nevada website. This form directly associates with the Adopt-A-Block link in which visitors to the Don’t Trash Nevada website can fill out if they were interested in adopting a block/parcel of land to clean-up. Student in the MIS program were given a shortened version of the Hector’s Helpers curriculum so they were able to understand the background and importance of their contribution.

2. Students were tasked with developing a social media plan for Don’t Trash Nevada. This included how to spread messages for the Adopt-A-Block program as well as provide opportunities for anti-litter messages to be more widely spread across Southern Nevada.

**Geospatial Information Systems (GIS)**

Approximately 60 students in the GIS classrooms developed and displayed their ideas of how GIS can be used on public land and for desert dumping projects. Students developed ideas such as games on the Don’t Trash Nevada websites and enlisting volunteers to help track illegal dumping. Students in the GIS classroom also developed a *GIS Day* for their entire school. For the day, they developed games that their classmates participated in to better understand what
GIS is and how it is being used. Of the 700 students that attend West CTA, all classrooms were invited to attend.

**Field Trips**

September 22 & 23, 2010: On two separate days, about 60 students each day rode a bus to Red Rock National Conservation Area to provide students with the opportunity to gain knowledge about plants, animals, and public land that is in their communities and backyard of their schools. From Red Rock, the students were then taken to an illegal dump site. These students walked a parcel a BLM land where it appeared a foreclosed home’s items had been dumped. This activity was prefaced with daily in class lectures and visits as well as post trip follow up classroom visits and training.

October 22, 2010: 32 students from the GIS classes attended a field trip to the University of Nevada, Las Vegas to meet with the Director GIS and Remote Sensing Core Lab as well as tour the UNLV GIS facilities.

February 5, 2011: 70 students from West Career Technical Academy High School promoted and cleaned 40 cubic yard of litter from the Sloan Canyon area on BLM land. Students included business/marketing students as well as various club members, such as FBLA, Key Club, and student council.

**Roy Martin Middle School Project**

On May 19, 2011, the Roy Martin Hector’s Helper students presented their semester project. The morning was set aside for the Hector’s Helper students to educate the younger elementary school class about the dangers of littering. The students managed that the older group worked with the younger students at Sunrise Elementary. The Roy Martin students behaved very responsibly as they lead the young class of first grade boys.

Representatives of the Hector’s Helpers group introduced themselves to the elementary students and informed them about the group’s involvement with Hector’s Helpers. Then they educated the class about the dangers of littering and desert dumping. They explained that littering leads to the desert tortoise’s extinction. Communicating in a way to hold the attention of the younger students, they expressed how we rely on the environment and must protect it. The Hector’s Helpers also shared their clean-up fieldtrip experience with the 1st grade class. They provided a vivid illustration of the considerable amount of trash left on the public land that day.
Next, to continue their project, the Hector’s Helpers moved the first graders outside to participate in activities they designed themselves. The theme of the Roy Martin Hector’s Helpers activities were the Litter Olympics. The events were intended to educate the 1st grade class in a fun, hands-on approach.

At the end of the project activities, all students returned to the 1st grade classroom. The Hector’s Helpers gave snacks to the younger students. While the little boys enjoyed their snacks, the Hector’s Helpers presented each of them with certificates celebrating their new anti-litter accomplishments.

**Litter Olympics Events:**

1. **Litter Obstacle Course** - students separated into two relay teams. The game begins when the first person on each team puts on an industrial lime green vest. Then, the players race by jumping inside a trail of hula-hoops until they reach the littered area. Once in the littered area, they must race to put the litter into the trashcan. After shooting the litter in the trashcan the player returns to his teammates and the line rotates until the last team member finishes.

2. **4 Team Tug-A-War** - students divided into four teams. Then, each team attempts to pull the center ring over their finish line. This can rarely be achieved by strength alone and instead requires skill. The students enjoyed pulling against each other and strengthened their teamwork.

3. **Recycling Tag Game** - students separate into three groups. The three groups are: plastics, cardboard, and paper. Each player holds onto one of the three represented items and stands to the side behind the designated line. The players behind the line wait to race across the other side of the field without being tagged by the player in the center. The center player will call out one group to run, i.e. “go plastics,” and will try to tag the plastic players while they run for safety on the other side. Once a player is tagged, he joins the person in the center and becomes an additional tagger. The game ends when all three groups take turns running across and only one person is left untagged.

4. **Litter Clean-Up** - simply, the students were divided into three teams and raced to pick up as many litter on their school field as they could. The younger students were provided with gloves as they picked up trash and the older students were ready to collect the litter by holding open the trash bags.

**Televised News Segment**

On June 4, 2011 Las Vegas City Scene aired a news segment that featured our Hector’s Helpers Program. In conjunction with Keep Las Vegas Beautiful, the news station filmed the Roy Martin
“Litter Olympics” and interviewed KLVB representative, Lisa Campbell, PLI Graduate Assistant, April Taylor, and a student from Roy Martin. They all shared the purpose of Hector’s Helpers and added its positive influence on students to conserve the environment. The news segment can be found on the following YouTube link: http://youtu.be/i5tbYbRMFp0.