GOODMAN RESEARCH GROUP, INC.
Program Evaluation • Consultation • Market Research

Journey to Planet Earth: The State of the Ocean's Animals Summative Evaluation

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EXECUTIVE SUMMARY

In 2007, Goodman Research Group, Inc. (GRG) conducted summative evaluation of the *Journey to Planet Earth: The State of the Ocean's Animals* project for Screenscope, Inc. and American Association for the Advancement of Science (AAAS). Overall, the broader *Journey to Planet Earth* project, which includes ten programs (three of which were funded by the current National Science Foundation Grant), seeks to:

1) Help citizens, young and old, better understand and use environmental science information in a meaningful manner, and
2) Assist informal science centers in providing opportunities for people to become actively involved in local environmental issues.

The full evaluation report describes GRG's assessment of the overall influence of the television program and associated outreach initiative on their intended audiences. Specifically, GRG evaluated the influence of the *State of the Ocean's Animals* program on a sample of TV viewers and the scope and impact of the outreach programs conducted by the museums and science centers.

METHODS

GRG used a multi-method approach to evaluate *Journey to Planet Earth: The State of the Ocean's Animals*. For the evaluation of the TV program, 47 participants representing a range of geographic locations and demographic characteristics participated in a viewer study. More than half of participants regularly watched science-related television programs. They viewed *The State of the Ocean's Animals* and completed three web-based surveys: one before viewing, a second survey within two days after viewing, and the third survey two weeks after viewing. Surveys were designed to obtain baseline information and to assess appeal of and learning from the program.

For the evaluation of the outreach initiative, GRG administered a web-based survey to staff at the sites participating in the outreach initiative in one or both of the project years (N = 17 survey participants). The survey was designed to learn more about the range and scope of programs implemented in conjunction with Screenscope/AAAS project. Additionally, GRG reviewed the proposals and year-end reports each site sent to AAAS, conducted brief telephone interviews with staff members at five sites, and visited two of the sites.

KEY FINDINGS FROM THE VIEWER STUDY

Overall Assessments of the Program Were Overwhelmingly Positive

- Responses to the JPE program, both overall and to the individual segments, were extremely positive; 94% rated the program as *excellent* or *very good*, and participants were particularly impressed by the cinematography and overall visual appeal of the program.

- Participants found the program easy to understand, informative, and engaging and believed it should be shown to wider audiences. Some noted that school groups, in particular, would benefit (though should be advised of graphic content).
- Participants particularly more thoroughly enjoyed those segments from which they learned new information.
- Participants favored segments featuring animals they connected to or found "fun" or "cute," for instance, the sea otters.

After Viewing, Participants Planned to Pay More Attention to Environmental Science Issues

- After watching the program, participants were more likely to seek out information on environmental issues than they were prior to viewing. Specifically, participants reported being increasingly likely to plan to visit a museum, attend a lecture/presentation about environmental issues, watch a television program, or visit Web sites featuring environmental issues.
- Participants reported they would be more likely to pay attention to the topics presented in the program after having watched it than they were before viewing. Over 95% participants post-viewing reported that they would be likely to pay attention to a story about over-fishing, hunting of ocean animals, threats to migration patterns of ocean animals, effects of global warming on ocean animals, extinction of ocean animals, and returning ocean animals to their habitats.
- Viewers described that the program was extremely effective at convincing them that there are significant threats to ocean animals.

Knowledge about Environmental Issues Increased After Viewing

- Prior to viewing the program, most participants were interested in learning more about climate change, sea level rise, and the conditions of ocean animals.
- Because participants had more prior knowledge about effects of climate change than about hunting of ocean animals and effects of pop culture on ocean animals, they reported post-viewing having learned more about the latter topics.
- After watching the program, participants reported both being more knowledgeable about and having more interest in the living conditions and threats to survival of ocean animals.
- After watching the program, over 80% of participants reported increases in their motivation to learn about sea level rise and climate change.

KEY FINDINGS FROM THE OUTREACH INITIATIVE

Staff from outreach sites reported on 23 different programs conducted as a result of the JPE/AAAS project. Across these programs, there was wide variation in size and scope, including the types of activities conducted, target audiences, numbers of attendees.

- Participants in the various programs varied widely and included teachers, parents, students of all ages (e.g., school and home-school students and

summer campers), general museum visitors and members, community members, scientists, environmentalists, and museum staff and volunteers.
- On average, there were roughly 400 visitors per program, and attendance ranged from an estimated 15 attendees to several thousand participants.
- Fifteen of the programs included staff training components, and between one and 50 staff members participated in each program.
- Activities ranged from one-time offerings to year-round programs.

All sites promoted the *Journey to Planet Earth* series and JPE/AAAS outreach program through print media. All but the Miami Museum of Science also promoted the series and outreach program online.

Overall, site staff believed that their program goals were met. In follow-up interviews after they completed the survey, key staff at the sites expressed appreciation for the opportunity to participate in this program and interest in future participation in similar projects.

KEY RECOMMENDATIONS

Considering the results of the viewer study and evaluation of the outreach initiative, GRG offers the following recommendations for Screenscope and AAAS to consider in future work:

- Continue to use video media formats (e.g. TV documentaries) to educate audiences about environmental science and consider venues through which to promote wider viewership.
- Wider dissemination of the program may help to reach potential viewers who may be less informed, and even less convinced, about the threats of climate change and sea level rise.
- In future programs, consider focusing more explicitly on topics about which there is less extant knowledge among target viewers. Programs that educate about the specific effects of climate change – and that viewers see as personally relevant – can continue to meet an important need.
- Continue to include stories of hope amid the stories with more bleak endings.
- Consider including a content advisory to warn viewers of the graphic images in future programs.
- Providing each outreach site with a report template will help in obtaining a more complete and consistent picture of the outreach activities created through similar national community-based programs.
- Initiate evaluation activities at the time outreach programming commences, so that evaluation data may be more thorough and obtained during program implementation.

INTRODUCTION

Goodman Research Group, Inc. (GRG) was contracted by Screenscope, Inc. to conduct summative evaluation of the ***Journey to Planet Earth: The State of the Ocean's Animals*** project that was mounted by Screenscope and its outreach partner, the American Association for the Advancement of Science (AAAS). As part of its *Journey to Planet Earth* series, Screenscope, Inc. produced three programs for broadcast that were funded with the current, three-year National Science Foundation grant. These were: *The State of the Planet*, *The State of the Planet's Wildlife*, and *The State of the Ocean's Animals.*

The *Journey to Planet Earth* series features stories that focus on the relationship between "people and the world they inhabit." Each program in the series focus on a particular set of issues (such as threats to ocean animals) and highlights the human impact on those environmental issues. The producers note that "a common thread runs throughout all the programs — the necessity to achieve a balance between the needs of people and the needs of the environment" (*Journey to Planet Earth* Web site).

Overall, the ***Journey to Planet Earth*** project seeks to:

1) Help citizens, young and old, better understand and use environmental science information in a meaningful manner, and
2) Assist informal science centers in providing opportunities for people to become actively involved in local environmental issues.

The current summative evaluation was conducted in 2007 and focused on *The State of the Ocean's Animals* program and its associated outreach initiative. Each of the six segments in *Journey to Planet Earth: The State of the Ocean's Animals*, narrated by actor Matt Damon, focuses on an environmental science issue (e.g. climate change, sea level rise) and its impact on a particular ocean animal (e.g. sea otters, Pacific salmon). Between March 28, and April 8, 2008, *The State of the Ocean's Animals* aired on nearly 300 PBS stations nationwide, and national coverage was estimated at 88% of U.S. television households.

In addition to the television series, *Journey to Planet Earth* includes an educational outreach component. Screenscope, Inc. partnered with the American Association for the Advancement of Science (AAAS) to provide funds to nine museums/science centers nationwide over two years. Those sites conducted a variety of environmental science programs and promoted the *Journey to Planet Earth* series.

The broad goal of GRG's evaluation was to assess the overall influence of the two components (the television program and the outreach initiative) on the TV viewers and on the collaborating partners (the nine sites) and the intended audiences (i.e., families, students, the general public). The specific objectives were to document (and assess, as feasible):

- The influence of the *State of the Ocean's Animals* program on a sample of TV viewers regarding their awareness of, interest in, and understanding of the issues raised in the program,
- Enjoyment and attitudes of the program activity visitors to become more involved in improving their local environment,
- The effectiveness of the outreach to develop a community activity that would relate to the themes of the JPE series, and
- How the sites promoted the broadcast of the programs to their local community.

In this report, the evaluation of the program and the outreach initiative are presented separately, with a more comprehensive focus on the viewer study, reflecting its larger scope. For each component, the methods and results are described. The final section consists of our conclusions based on the results and our recommendations for future similar broadcast programs and outreach that Screenscope or other informal science educators may develop.

VIEWER STUDY METHODS

To assess the short-term impact of *Journey to Planet Earth: The State of the Ocean's Animals* program on viewers, GRG conducted a one sample, pretest-posttest research study. Fifty-five participants were recruited using GRG's research participant database and, ultimately, 47 fully participated.

SAMPLE SELECTION

Participants were recruited based on age and science television viewership. Based on Nielsen ratings data provided to Screenscope and GRG indicating that the audience for the program was somewhat younger than the traditional PBS audience (perhaps due, in part, to the popularity of narrator Matt Damon), GRG recruited younger viewers into the study in addition to typical PBS viewers.

PROCEDURES AND INSTRUMENTS

Full participation in the study included viewing *The State of the Ocean's Animals* and completing three web-based surveys: one before viewing, one within two days after viewing, and the third survey two weeks after viewing. Surveys were designed to obtain baseline information and to assess appeal of and learning from the program.

The pre-viewing survey included questions about to the following topics:

- Demographic information;
- Seeking science-related information (sources, frequency);
- Interest in environmental science;
- Awareness of topics similar to those presented in the program (repeated at follow-up);

- Knowledge about and interest in climate change and sea level rise (repeated at follow-up); and
- Specific threats to ocean animals featured in the program (repeated at follow-up).

The post-viewing survey focused on appeal of the program and included questions in the following areas:

- Impressions of the program overall;
- Ratings of the program's cinematography, music, and narration;
- Ratings of how informative, touching, interesting, engaging, clear, and visually appealing each segment was;
- Favorite and least favorite segment; and
- Amount of new information (to the participant) presented in the program.

The final follow-up survey focused learning from the program (two weeks after viewing it) and included questions similar or identical to those on the pre to assess changes that participants reported from pre-viewing to post-viewing.

The participants who completed all activities received $75 stipends. Six participants failed to complete the pre-viewing survey after signing up for the study, and two participants failed to complete the post-viewing survey. The final sample size was 47 viewers.

VIEWER STUDY RESULTS

Results presented below represent data from the 47 participants who completed all activities of the research study. Throughout the report data are presented in terms of number of participants rather than percentages, as the total number of participants was less than 50.

DEMOGRAPHIC INFORMATION

Viewer study participants were evenly distributed along gender lines, and slightly more than half of participants were Caucasian/white. Participants were evenly distributed across age categories, from 18 to over 65 years old. Over half of participants reported incomes of $50,000 or more and participants in the study were well educated; 83% had completed at least some college coursework. Finally, nine of 47 participants (19%) reported science-related occupations. See Table 1.

Table 1
Profile of Participants

		Respondents
Gender	Female	23
	Male	24
Race/Ethnicity*	Caucasian/White	26
	African-American/Black	10
	Asian/Pacific Islander	8
	Latino/Hispanic	4
	Native American	2
	Other: "¼ Native American"	1
Age	18 – 34 years-old	11
	35 – 49 years-old	16
	50 – 64 years-old	12
	> 65 years-old	8
Total Annual Household Income	< $20,000	4
	$20,000 - $24,999	1
	$25,000 - $34,999	2
	$35,000 - $49,999	12
	$50,000 - $74,999	14
	$75,000 - $99,999	9
	> $100,000	5
Highest Level of Education Completed	High school degree	8
	Some college	10
	College degree	12
	Some graduate/professional school	3
	Graduate/professional degree	13
	Other: Technical school	1

N=47; *Race/Ethnicity numbers total more than 47 because participants could check more than one category.

SOURCES OF SCIENCE-RELATED INFORMATION

Before viewing, participants indicated their usual sources for science-related information included science video media (including documentaries, programs and movies) or news broadcasts; two participants selected the option to indicate they do not typically seek out such information (See Table 2). Six out of ten

Six out of ten participants regularly watch science-related television programs.

participants regularly watch science-related television programs (i.e., at least a few times a month. Only 11% of participants reported that their primary source of science-related information was a particular web site, although over half of participants (57%) had visited the PBS web site in the past month (see Table 2).

Table 2
Major Source of Science-Related Information

Source	Respondents
Science documentaries, programs, and movies	12
National news broadcast	9
An online news source	6
Regional/local newspaper	5
Science-based Web site	5
Local news broadcast	3
Public radio news	2
Magazines	2
I do not seek out information on the latest advancements in science	2

N=47

Table 3
Frequency of Watching Science-Related TV Programs

Frequency	Respondents
Once a week or more	13
A few times a month	15
Once a month	7
A few times a year	8
Once a year	2
Never	2

N=47

Table 4
Visits to PBS Web Site in Past Month

# of Visits	Respondents
>5 Visits	4
4 – 5 Visits	6
2 – 3 Visits	8
1 Visit	9
0	20

N=47

Just under half of the participants had viewed at least one of the other nine Journey to Planet Earth *episodes.*

Some participants indicated on their pre-viewing survey that they did have previous exposure to the *Journey to Planet Earth* series. Just under half had viewed at least one of the other nine *Journey to Planet Earth* episodes (see Table 5). Those participants who had viewed one or more episodes were significantly more likely than those who had watched no episodes to report more current knowledge about science and environmental issues. They also were more likely to report being knowledgeable about and interested in climate change, sea level rise, and the living conditions of ocean animals at pre-viewing.

Table 5
Past Viewing of *Journey to Planet Earth* Episodes

Frequency	Respondents
>4 episodes	6
2 – 3 episodes	10
1 episode	6
0 episodes	25

N=47

Ten of the 47 participants (21%) had viewed *Journey to Planet Earth: The State of the Ocean's Animals* prior to enrolling in the viewer study. However, the data do not reveal whether these participants viewed the entire program, one segment, or just a few moments. Throughout the analyses, GRG compared their results to the rest of the sample, and the only statistically significant differences were that past viewers were more likely to have sought out information about environmental issues in the month prior to completing the pre-viewing survey. There were no differences in their pre-viewing knowledge or perception of threat of climate change or sea level rise between the groups (this may be because those who indicated that they had watched the program only had seen a small portion of the program and/or were distracted while watching). Therefore, results are presented for the entire sample, and not separated by those who had or had not viewed the program prior to our evaluation.

All 47 participants watched the entire program before completing the post-survey. Of those, 35 participants watched the DVD alone and 12 watched it with family.

OVERALL ASSESSMENTS OF THE PROGRAM

Overwhelmingly, participants reported that the content of the program was easy to understand.

This section presents results from the two post-viewing surveys. Overwhelmingly, participants reported that the content of the program was easy to understand (81% reported *very easy*, and 19% reported *fairly easy*).

All viewers described their overall impressions of the program, in an open-ended format; the majority commented on the informative and engaging nature of the program and its content. Responses were coded according to common themes, which are listed below and followed by representative quotations. Several

responses were coded into more than one category, thus total number reported here exceeds 47.

- 30 noted that the stories were informative and engaging;
- 15 described a strong emotional reaction to a story (particularly to the more visually graphic stories);
- 11 noted what they learned from the program;
- 5 provided constructive criticism about the program (e.g., too many issues were covered, the narration was too melodramatic, or the information seemed biased); and
- 2 noted they would like to see the program shown to a wider audience

I was very impressed, there was so much happening around the World that man is doing to destroying Sea life and natural habitats of Animals. This is something the entire world needs to be aware of!

I was horrified by the dolphins killed in Japan and the blood. I cried several times in the video.

I found the program informative and interesting, but felt like it tried to cover too many issues which made the information seem sparse.

Something I would have liked my Tivo to pick up on and record, though I probably wouldn't have explicitly set it to record.

Participants' ratings of the program were extremely positive; 94% rated the program to be *excellent* or *very good* (see Table 6). They were similarly positive about the program's narrator (actor Matt Damon) and the music. Participants were particularly impressed with the cinematography.

Participants' ratings of the program were extremely positive; 94% rated it to be excellent *or* very good*. They were similarly positive about the program's narrator and music and were particularly impressed with the cinematography.*

Table 6
Ratings of Program

	Excellent	Very Good	Good	Fair	Poor
Program overall **Mean = 4.62**	32	12	3	0	0
Narrator Matt Damon **Mean = 4.46**	29	11	4	2	0
Cinematography **Mean = 4.79**	39	7	0	1	0
Music **Mean = 4.24**	22	14	9	1	0

N=46–47

Forty-three of the viewers elaborated on their overall program ratings and 55 of their comments were positive; 14 were negative. Frequently mentioned areas are listed below, followed by representative quotes. Some of the participants' responses were coded into more than one category, thus the number of responses exceeds 43:

- 18 described reactions to the narrator, and 12 of these were positive comments;
- 17 respondents wrote generally positive comments;
- 15 described reactions to the cinematography, and all comments were positive;
- 13 noted reactions to the music, and 7 of these were positive (2 were neutral);
- 3 provided a comment about the topics and presentation of the material, and 2 of these were positive; and
- 3 offered general constructive criticism of the program overall;

I am glad that an A-List celebrity like Matt came on board for this project. It brings more attention and importance to it. Matt was okay as a narrator, not as emotional or appealing as I feel he could have been. The music was okay. I didn't really notice it too much. The cinematography was beautiful, no complaints there. Now, the text on the screen appeared to look very "70'ish". I would have liked to have seen something more modern. Overall, it was a very informative, educational, enlightening program. To take it to the next level, I would have the narrator speak with the urgency and emotion the issue warrants, and have the music reflect that.

The story was well told in that it illustrated the seriousness of the problem but offered a ray of hope. Matt Damon is a good choice to connect with young adults. The music set the tone without being intrusive.

At times I felt Matt Damon was speaking too slowly and had the impression he was talking down to the audience. The cinematography was breath taking. I found the music fit the scenes.

Everything was top class and the presentation was excellent!

Nearly two thirds of viewers noted that most *or* all *of the information was new to them.*

Most participants reported they learned new information from watching the program. As shown in Table 7 and described below, nearly two thirds of viewers noted that *most* or *all* of the information was new to them.

Table 7
Amount of New Information

	Respondents
Almost none of the information presented was new to me.	2 (4%)
Some of the information presented was new to me.	14 (30%)
Most of the information presented was new to me.	19 (41%)
Almost all of the information presented was new to me.	11 (24%)

N=46

All 47 viewers described a new thing they learned from watching the program; several described more than one new concept. Responses are listed below, followed by representative quotes.

- 29 listed a fact about one of the specific animals (7 comments about dolphins, 6 about sea otters, 5 about sharks, 4 about salmon, 2 about cod, and 2 about penguins);
- 10 described general knowledge of the state of the ocean's animals;
- 7 noted the impact of humans as causes of problems or as having agency/responsibility to ameliorate problems;
- 3 provided a general comment, such as *"did not know much about how it all started"*; and
- 2 described gaining new knowledge of climate change.

I learned that both man and nature are causing problems to our ocean's animals, and things have to be corrected to keep these wondrous creatures from becoming extinct. It was frightening to me to see the dangers to which these creatures have been and are exposed.

Dolphins are still hunted in Japan. I knew that they hunted whales, but I wasn't aware of the dolphin kills.

While I knew about the Oregon/Washington drought, I did not realize the severity of the impact on the Klamath River Salmon fishery. And, though I already knew about the ocean being 90% fished out, this was the first time I experienced that knowledge viscerally.

The far reaches of global warming, and the difficulty in reversing its effects.

Participants reported that the program was quite effective at convincing them that there are significant threats to ocean animals and that sea level rise and climate change are relevant to their lives.

Participants reported that the program was quite effective at convincing them that there are significant threats to ocean animals and that sea level rise and climate change are relevant to their lives (see Table 8).

Table 8
Effectiveness of Program at Inspiring Relevance to Personal Lives of Viewers

	Extremely effective	Very effective	Generally effective	A little effective	Not at all effective
Convincing you that sea level rise is relevant to your life **Mean = 4.02**	19	16	7	4	1
Convincing you that climate change is relevant to your life **Mean = 4.19**	22	15	7	3	0
Convincing you that there are significant threats to the ocean's animals **Mean = 4.62**	31	14	2	0	0

N=47

Viewers described specific ways in which the stories from the program were relevant to their lives (some of the 39 responses fell into more than one category):

- 16 described how they became more aware of and interested in the issues presented as a result of watching the program;

- 9 noted appreciating the role of humans in creating the problems and the duty we have to ameliorate them;
- 6 stated a general concern they (now) had from the issues raised;
- 5 described how the program made them think about their children and future generations;
- 4 noted that the issues related to their own job or hobby (e.g. fishing); and
- 3 noted they could relate to the issues because of where they live or have family (e.g. Hawaii, the Philippines).

"All the stories are relevant to my life because even if just one animal is gone forever, it changes the whole life cycle."
-Viewer Study Participant

Made me more aware of man's disregard to our planet's and animal safety. I already donate money to many conservation and animal groups and I will continue to do so.

All of them are relevant to me, as they pertain [to] my fellow creatures & the Earth, but particularly the fact that the killing of dolphins is still allowed in Japan (!) I find that outrageous and unacceptable, and will do everything within my reach to bring attention to the issue and stop the slaughter.

All the stories are relevant to my life because even if just one animal is gone forever, it changes the whole life cycle. Also, climate change and rising waters affect all living creatures, not just sea animals.

I live close to the Gulf of Mexico and it is a favorite vacation place for my family and our friends. We love to watch the dolphins in the mornings and we can sometimes see schools of fish. I feel close to these issues because I can experience their beauty first hand.

Participants also provided additional comments about the program or their overall experiences with it (some of the 43 responses were coded into more than one category):

- 26 expressed gratitude for their participation in the study or provided a generally positive comment about the program;
- 14 described how the program was informative and noted what they learned from it;
- 7 participants expressed their hope that the program will be shown to a wider audience, particularly to school groups;
- 6 provided a constructive criticism about the program; and
- 4 noted the graphic content of the program.

"I feel this problem has to be shown to everyone in the whole world. So they will have a better knowledge of the problems."
-Viewer Study Participant

I look forward to the next chapter to the Saga of Mother Earth. I would also like to see "Resources" listed and places to call to volunteer assistance included in the programming, as education is a very powerful tool especially with the young.

I feel this problem has to be shown to everyone in the whole world. So they will have a better knowledge of the problems.

I just want to inform you that this is something everybody should watch so all can see what we're doing. We need to be more aware of all the things we're doing that's destroying our planet and its inhabitants. Thank You! very much for opening my eyes and sharing this important information with me. I'm going to share this DVD with friends and family so they can also experience and see what I have by watching it.

ASSESSMENTS OF INDIVIDUAL PROGRAM SEGMENTS

Segments six (sea otters) and three (sea turtles and Emperor penguins) were the top choices for favorite segment.

In addition to rating the program overall, participants rated various aspects of each of the six segments. Segments six (sea otters) and three (sea turtles and Emperor penguins) were the top choices for favorite segment, and segment five (dolphins) was noted as the least favorite segment by one-third of participants (see Tables 9 and 10).

Table 9
Favorite Segment

	Respondents
Segment 6: Returning the Sea Otter to Monterey Bay, California	15
Segment 3: Effects of global warming	13
Segment 4: Chinook Salmon in the Klamath River	6
Segment 5: Hunting wild dolphins in Japan	6
Segment 1: Over-fishing	4
Segment 2: Pop Culture and Its Effects on Ocean Animals	2

N=46

Viewers noted why a particular segment was their favorite (and some of the 46 responses were coded into more than one category):

- 16 described what they learned from their favorite segment;
- 10 enjoyed the segment because it featured an animal they like;
- 10 noted that the segment was their favorite because it featured the impact of humans on the issues presented;
- 8 were positive about the treatment of the topic in the segment;
- 8 noted that they enjoyed the sea otter segment because it was more hopeful; and
- 1 participant wrote, "*Probably because I could say "I told you so" to the screen while I watched.*"

It was my favorite because I had no idea it was happening. It was devastating to watch, but I felt like I really learned something from it. (Segment five, dolphins)

Dramatic portrayal of character, scale and impact of the ecological car crash that is underway. (Segment four, Pacific salmon)

It was nice to see a happy ending after all the horrible information provided about this planet. (Segment six, sea otters)

Table 10
Least Favorite Segment

	Respondents
Segment 5: Hunting wild dolphins in Japan	14
Segment 2: Pop Culture and Its Effects on Ocean Animals	9
Segment 6: Returning the Sea Otter to Monterey Bay, California	7
Segment 1: Over-fishing	6
Segment 4: Chinook Salmon in the Klamath River	6
Segment 3: Effects of global warming	2

N=46

Reasons that segments were selected as least favorite are listed below (some of the 44 responses were coded into more than one category):

- 12 noted the segment they selected was least engaging, interesting, or relevant to them;
- 11 noted that the segment was difficult to watch because of its graphic content;
- 8 described their emotional reaction to a sad topic;
- 5 noted they found the segment the least visually-appealing;
- 4 noted they learned least from the segment; often because it contained information they already knew;
- 4 loved all of the segments and could not come up with a least favorite; and
- 2 disagreed with the content presented in the segment (i.e. did not believe that climate change exists).

It made me very angry and gave me a very bad reaction to certain groups of people whom I believe need to be punished. (Segment two, sharks)

I don't agree with what is said about global warming. I think it is a natural cycle. After all evidence of rich vegetation has been found under the ice of Greenland, so at some point the Earth was warmer than now. (Segment three, sea turtles and emperor penguins)

Did not hold my interest as much, and did not seem as vitally important. (Segment two, sharks)

It was hard to watch how they are slaughtering the dolphins. (Segment five, dolphins)

After viewing, participants noted that they were most familiar with the content presented in the segment about global warming effects and least familiar with the content presented in the segment about hunting dolphins in Japan.

After viewing, participants noted that they were most familiar with the content presented in the segment about global warming effects and least familiar with the content presented in the segment about hunting dolphins in Japan (see Table 11).

Overall, segment five garnered the most positive ratings, although ratings for all six segments were overwhelmingly positive.

Table 11
Prior Experience with Content Presented

	This was the first time I learned about this topic	I had some knowledge about this topic, but this was the first time I watched a program on the subject.	I had watched a program on this subject before.
Segment 1: Over-fishing	17	26	4
Segment 2: Pop Culture and Its Effects on Ocean Animals	20	21	6
Segment 3: Effects of global warming	11	24	12
Segment 4: Chinook Salmon in the Klamath River	23	20	4
Segment 5: Hunting wild dolphins in Japan	34	9	4
Segment 6: Returning the Sea Otter to Monterey Bay, California	29	10	8

N=47

Participants rated each of the six segments along six categories on a scale from 5 (*extremely*) to 1 (*not at all*) (see Appendix A for full set of ratings for each segment). They also described the most interesting thing they learned from each segment. Table 12 presents all of the average ratings scores across the six segments. Overall, segment five garnered the most positive ratings, although ratings for all six segments were overwhelmingly positive.

Table 12
Compiled Average Ratings for Each Segment

	Interesting	Touching	Informative	Engaging	Clarity of material	Visually appealing
	Scale: 5 (Extremely) to 5 (Not at all)					
Segment 1: Over-fishing (Atlantic cod)	4.30	4.09	4.53	4.15	4.43	4.30
Segment 2: Pop Culture and Its Effects on Ocean Animals (sharks)	4.49	4.34	4.49	4.30	4.47	4.45
Segment 3: Effects of global warming (sea turtles and emperor penguins)	4.55	4.45	4.62	4.51	4.45	4.62
Segment 4: Chinook Salmon in the Klamath River (Pacific salmon)	4.38	4.23	4.49	4.26	4.38	4.34
Segment 5: Hunting wild dolphins in Japan	4.70	4.83	4.70	4.66	4.62	4.32
Segment 6: Returning the Sea Otter to Monterey Bay, CA	4.30	4.28	4.38	4.28	4.36	4.38

N=47

Participants reacted quite positively to the segment about over-fishing Atlantic cod and found it to be particularly informative.

Participants reacted quite positively to the segment about over-fishing Atlantic cod and found it to be particularly informative. Viewers described the most interesting thing they learned from segment about Atlantic cod, and some of the 38 responses were coded into more than one category:

- 18 generally remarked that they learned what over-fishing was and learned about the extent of the problems from over-fishing;
- 7 noted the impact of over-fishing on the fishing industry;
- 5 described the impact of over-fishing on species beyond Atlantic cod;
- 4 described the global, multinational impact of over-fishing;
- 4 noted the human influence on the problem; and
- 2 learned about the lives of cod.

That a huge trawler can catch up to 1 million pounds of cod a day. Why would they discard what they don't want. I would want to find uses for it, at least.

I learned that over-fishing is causing people who depend on the sea to lose their main food source.

It showed how wasteful man is in over-fishing, destroying other sea life besides cod.

Over half of participants rated Segment Two as extremely interesting, informative, clear, and visually appealing

Segment Two used the example of sharks to illustrate the effect of pop culture on ocean animals. Participants were very positive about this segment; over half of participants rated it as extremely interesting, informative, clear, and visually appealing. Viewers described the most interesting thing they learned from segment about sharks, and some of the 39 responses were coded into more than one category:

- 16 described the impact of pop culture on humans' perceptions and treatment of sharks;
- 12 noted how sharks are slaughtered for only their fins; and
- 12 became generally more interested in the topic.

How movies, sometimes without intention, demonize certain animals and generate a chain reaction that puts a species in risk of extinction.

Sharks have their fins cut off and are thrown back into the ocean to die. After Jaws *became so popular, people thought of sharks as predators. Millions were killed with their bodies being tossed back to sea after their fins were removed.*

Participants responded, in particular, to the positive visual appeal of Segment Three.

Segment Three used the examples of sea turtles and Emperor penguins to illustrate effects of global warming. Participants responded, in particular, to the positive visual appeal of this segment. Viewers described the most interesting thing they learned from segment about sea turtles and emperor penguins, and some of the 42 responses were coded into more than one category:

- 14 described the loss of penguins' and turtles' habitats due to climate change;

- 11 noted, more generally, that they learned from the segment;
- 9 described effects of global warming;
- 5 described effects of sea level rise;
- 5 noted the ways that humans were trying to intervene to preserve the turtles' nesting grounds; and
- 3 disputed that global warming exists.

The habitat of the turtles and penguins is changing fast. They should not have to adapt to the global warming but are being forced to.

I'm not sure there is such a thing as global warming.
Now I understand how both animals are affected, I knew they had issues but I did not know what they were specifically, now I because of your movie.

Participants found Segment Four to be particularly informative.

Segment Four presented the case of Pacific salmon in the Klamath River. Participants found this segment to be particularly informative, though somewhat less engaging and touching than informative. When asked about the most interesting thing they learned from this segment, participants provide 42 responses, some of which were coded into more than one category:

- 20 noted the threat salmon populations and their migration patterns;
- 12 commented on the impact of humans and the government on the resulting situation;
- 10 described having become more interested and generally learning more; and
- 4 noted the impact on the human population near the Klamath river and/or on their fishing industry.

I learned that now, their are less and less salmon to migrate (to produce young). Which of course means that less young are being born, and their numbers continue to fall.

I think it is rather sad that water from the dam is not being released to the river to help the salmon spawn. This is a situation that is unnecessary and preventable and surely a compromise between the farmers and the people relying on the fish can be made.

The salmon died off because of a political decision to use the river water for crop irrigation.

Responses to Segment Five were extremely positive. Participants found this segment particularly touching as well as extremely interesting and informative.

Responses to Segment Five, which described the hunting and slaughter of wild dolphins in Japan, were extremely positive. Participants found this segment particularly touching as well as extremely interesting and informative. Forty-four participants described the most interesting thing they learned from this segment, and some of their responses were coded into more than one category:

- 30 noted the brutal nature of the slaughter of the dolphins. They used terms including *cruel, inhumane, unnecessary, shocking, wrong, horrid, terrifying,* and *deplorable*;
- 12 described their general surprise in learning about the slaughter of dolphins; and
- 4 noted the potential role of the government in regulating killing of dolphins.

Absolutely outrageous...I cried when I learned about this. It must be stopped, and I will do everything in my reach to bring attention to the issue. I will start my own positive chain of reaction to help these magnificent creatures.

This whole story was "most interesting." I couldn't believe that humans could do such an awful, evil thing to any creature. Killing them slowly and letting them die while their kin listen on is horrific.

Finally, Segment Six offered a story of hope in the return of the sea otters to Monterey Bay, California. Participants had positive responses to this final segment (though slightly lower ratings in comparison to other segments), and 41 participants described the most interesting thing they learned from the segment (some responses were coded into more than one category):

- 12 remembered a story of success and hope at returning the otters to Monterey Bay;
- 11 noted that they had learned from the segment (but did not specify what they learned);
- 8 described the potential for positive human impact on the lives of ocean animals;
- 5 noted the relationships between the sea otters and kelp forest;
- 4 described threats to the sea otters; and
- 4 particularly related to this story, as they lived near or visited Monterey Bay.

"A plight that touched me deeply, and that shows that we can right some of our wrongs if we try hard enough. An example to follow." -Viewer Response to Segment Six

It was nice to see that we can do something right.

I liked the feeling of hope engendered by the return of the sea otter and the tremendous positive effect this had for the bay.

A plight that touched me deeply, and that shows that we can right some of our wrongs if we try hard enough. An example to follow.

That the sea otters helped the bay to be as healthful as it is by eating the kelps predators. They are precious.

ATTENTION TO ENVIRONMENTAL SCIENCE ISSUES

On the pre-viewing survey, participants indicated activities they engaged in during the month prior to viewing. Two weeks after viewing, on the follow-up survey, they indicated activities they engaged in since beginning participation in the study.

On the pre-viewing survey, there were some differences between those participants who had watched the program prior to the study and those who had not. More of those who had watched the program at least once before had read a book about environmental issues ($p = 0.02$), visited Web sites about environmental issues ($p = 0.05$), attended a lecture or presentation about environmental issues ($p = 0.01$), and visited a museum or science center ($p = 0.05$) in the month prior to completing the pre-viewing survey.

After viewing the DVD, participants reported that they had visited a museum, attended a lecture/presentation about environmental issues, watched a television program, visited Web sites, or had plans to do so (see Table 13; see Appendix A for detailed ratings at pre and post).

Table 13
Attention to Environmental Issues, Pre/Post Comparison

	Yes, Pre Viewing	**Yes, Post viewing (includes those who plan to)**
Visited a museum or science center	20	27
Attended a lecture or presentation about environmental issues	10	15
Watched a television program about environmental issues	41	42
Visited other Web sites to learn about environmental issues to those presented in *Journey to Planet Earth: State of the Ocean's Animals*	30	31
Read a book about environmental issues similar to those presented in *Journey to Planet Earth: State of the Ocean's Animals*	22	18
Discussed current environmental issues with friends, family, or colleagues	45	40
Tried to stay more up-to-date on cutting edge environmental issues in general	--	37

N=47

Since watching the program, 96% of participants had visited the JPE *web site or had plans to visit the site.*

Additionally, since watching *Journey to Planet Earth: The State of the Ocean's Animals*, 96% of participants had visited the *JPE* web site or had plans to visit the site.

Table 14
Visits to JPE Web Site Since Completing Pre-Survey

	Respondents
Many times (>5)	2
Several times (4 – 5)	6
A few times (2 – 3)	12
One time	5
No visits yet, but plan to visit Web site	20
No visits and no plans to visit Web site	2

N=47

Participants noted increased likelihood to pay attention to stories or news pieces related to all of the topics presented in *Journey to Planet Earth: The State of the Ocean's Animals*. Prior to viewing the program, they noted whether they had seen a story about those topics in the previous month. At follow-up, they indicated how likely they would be to pay attention to a story/news piece about those topics (see Table 15 and Appendix A for detailed ratings).

Table 15
Environmental Stories Noticed, Pre-/Post Comparison

Topic	Pre Viewing	Post Viewing	
	Number who had seen a story in the past month	Number Extremely, Very, or Moderately likely	Average (scale: 1 to 5)
Effects of pop culture on ocean animals	7	43	3.77
Hunting of ocean animals, such as wild dolphins	14	45	4.34
Threats to migration patterns of salmon or other ocean animals	16	45	4.17
Over-fishing of ocean animals	21	46	4.23
Returning ocean animals to their habitats	23	45	4.23
Extinction threats to ocean animals, such as fish, polar bears, penguins, sharks, or sea turtles	31	46	4.47
Sea level rise	32	41	4.09
Effects of global warming on ocean animals	36	45	4.17
Climate change	41	42	4.19
Other environmental issues similar to those presented in *Journey to Planet Earth: The State of the Ocean's Animals*	n/a	45	4.09
None of the above topics	2	n/a	n/a

N=47; n/a indicates that the question was not asked.

The largest changes in likelihood to pay attention were for stories about the effect of pop culture on ocean animals and about the hunting of ocean animals. Prior to viewing, nearly all participants had seen a story about climate change, and they remained quite likely to pay attention to similar stories in the future.

KNOWLEDGE ABOUT ENVIRONMENTAL ISSUES

Prior to viewing the program, participants perceived themselves to be slightly more knowledgeable about and interested in science and environmental issues compared to most people they know (see Table 16). This was particularly true for interest in and knowledge of science in general. Participants rated their interest and knowledge on a scale from 1 (*much less interested/much less current knowledge*) to 5 (*much more interested/much more current knowledge*); higher average scores reflect more interest/knowledge.

Table 16
Knowledge of and Interest in Science and Environmental Issues

Compared to most people you know:	Much less	Less	No more or less	More	Much More
How interested are you in science? **Mean=3.91**	2	1	13	14	17
How interested are you in environmental issues? **Mean=3.96**	1	1	11	20	14
How current is your knowledge of the latest developments in science? **Mean=3.55**	2	5	15	15	10
How current is your knowledge of the latest developments in environmental issues? **Mean=3.53**	2	2	20	15	8

N=47

The most pronounced increases in self-reported knowledge were related to the living conditions of ocean animals.

Describing their own level of knowledge on a scale of 5 (*I am an expert in this field*) to 1 (*I know almost nothing)*, no participants considered themselves experts in the field, and most knew, at most, "a fair amount" about the topics. After viewing the DVD, participants reported whether the program increased their knowledge of these topics. They provided ratings on a scale from 5 (*increased extremely*) to 1 (*did not increase*), and higher average scores reflect greater increases. The most pronounced increases were related to the living conditions of ocean animals (see Table 17 and Appendix A for detailed ratings).

Table 17
Knowledge about Environmental Issues, Pre and Post-Viewing

	Pre-viewing knowledge of issues (average rating)	Post-viewing increases in knowledge (average rating)
Sea level rise	2.33	3.85
Climate change	2.76	3.70
Living conditions of various ocean animals	2.49	4.24

N=46-47; Higher average scores reflect more positive responses.

After watching the program, 85% of participants expressed increases in their motivation to learn about sea level rise, and 87% were increasingly motivated to learn more about climate change.

Prior to viewing the program, most participants were interested in learning more about climate change, sea level rise, and the conditions of ocean animals (see Table 18 and Appendix A for detailed ratings). They rated their interest on a scale from 5 (*extremely interested*) to 1 (*not at all interested*), and higher average scores reflect more interest. After watching the program, when rating their interest in and motivation to learn more about these topics, 85% of participants expressed increases in their motivation to learn about sea level rise, and 87% were increasingly motivated to learn more about climate change.

Over half of participants were increasingly interested in learning more about the living conditions of ocean animals. They provided ratings on a scale from 5 (*increased extremely*) to 1 (*did not increase*), and higher average scores reflect greater increases. As with the knowledge ratings, the most pronounced increases were related to the living conditions of ocean animals.

Table 18
Interest in Learning about Environmental Issues, Pre and Post Viewing

	Pre-viewing interest in learning more (average rating)	Post-viewing increase in interest (average rating)	Post-viewing motivation to learn more (average rating)
Sea level rise	3.66	3.77	3.36
Climate change	3.78	3.65	3.57
Living conditions of various ocean animals	3.76	4.30	n/a

N=46-47; Higher average scores reflect more positive responses.

After viewing, participants perceived that climate change and sea level rise were more serious threats to the planet than they did before viewing. Using a five-point scale, where 5 was *extremely serious* and 1 was *not at all serious*, higher scores reflected the perception of a more serious threat (see Table 19).

Table 19
Perception of Threat of Climate Change & Sea Level Rise, Pre/Post Comparison

How serious a threat to the planet is:	Mean (Scale: 1, not at all, to 5, extremely)	I don't know	A little bit or not at all serious	Extremely, very, or somewhat serious
Climate change	Pre: 4.04	2	3	42
	Post: 4.36	0	1	45
Sea level rise	Pre: 3.93	3	2	42
	Post: 4.28	1	2	44

N=47

KNOWLEDGE OF THREATS TO OCEAN ANIMALS

The data suggest that participants did learn about threats to ocean animals from watching the program.

As a measure of knowledge gained from viewing, participants answered six multiple choice questions before viewing and two weeks post-viewing. After viewing, more participants answered each question correctly. The only exception was for the question about sea turtles.[1]

Table 20 presents the number of correct responses to each question, and Table 21 shows the total number of questions participants correctly answered. These data suggest that participants did learn about threats to ocean animals from watching the program.

[1] This result may reflect that one of the *incorrect* responses ("As water levels rise, the beaches where sea turtles nest may disappear within a few years") was too similar to the *correct* answer. The beaches are, in fact, at risk of disappearing within a few decades, but not within a few years. This wording may have confused participants.

Table 20
Correct Responses to Content Questions Re: Threat to Ocean Animals

Correct Answer	Number and Percent Correct	
	Pre	Post
Sharks are being killed so that their fins can be sold for shark fin soup.	10	39
Pacific salmon: Droughts and dams have diminished the water supply in the rivers where salmon migrate so the salmon can't reach their natural spawning areas.	18	37
Atlantic cod continue to be over fished, as they have been for decades, and fisheries are not sustainable at the current levels of fishing effort.	21	31
Polar bears hunt seals from sea ice, and the ice is disappearing as a result of climate change.	34	35
Emperor penguins: Global warming is beginning to melt the sea ice surrounding the Antarctic where emperor penguins reproduce and raise their young.	37	38
Sea turtles are being drowned in fishing nets or killed as by-catch by the fishing industry.	20	9

N= 47

Additionally, there were improvements from pre to post in the number of questions participants answered correctly.

Table 21
Total Content Questions Correct

	# of participants	
	Pre-viewing	Post-viewing
All 6 correct	1	2
5 of 6 correct	7	16
4 of 6 correct	8	17
3 of 6 correct	10	7
2 of 6 correct	16	4
1 of 6 correct	5	0
0 of 6 correct	0	1

N=47; The person who got 0 questions correct on post got only 1 correct on pre, the question about emperor penguins.

There were improvements from pre to post viewing in the number of content questions participants answered correctly.

OUTREACH EVALUATION METHODS

For the evaluation of the outreach initiative, GRG used multiple sources to obtain further information about the project's overall process and general outcomes in the participating outreach sites. Sites that participated in the outreach over the two years were:

- Academy of Science St. Louis & the St. Louis Zoo (Year 1)
- Bishop Museum in Hawaii (Year 1)
- California Academy of Sciences in San Francisco (Years 1 and 2)
- California Science Center Foundation in Los Angeles (Years 1 and 2)
- Crystal Springs Preserve in Crystal Springs, Florida (Year 1)
- Louisville Science Center (Year 1)
- McWane Science Center in Birmingham, Alabama (Year 2)
- Miami Museum of Science (Year 2)
- Seattle Parks & Recreation (Year 1)

At all sites except the California Science Center Foundation in Los Angeles, the California Academy of Sciences in San Francisco, and the Miami Museum of Science, program activities (exhibits, etc.) were completed before GRG was contracted to begin our evaluation activities. Thus, the data obtained and reported on here are retrospective in nature. This section includes results from eight outreach sites (there were no data from the Bishop Museum in Hawaii). Data sources include:

- A web-based survey completed by 17 staff members at the eight sites;
- Brief follow-up telephone interviews with key staff from five of the sites (McWane Science Center, CA Science Center, CA Academy of Sciences, Crystal Springs Preserve, and St. Louis Zoo);
- Site visits (including data collection) to the California Science Center Foundation in Los Angeles and to the California Academy of Sciences in San Francisco.
- Review of the project proposals and year-end reports that the sites submitted to AAAS each year.

OUTREACH EVALUATION RESULTS

The results presented below include data compiled from all parts of the outreach evaluation (web surveys, interviews, reports and proposals, and site visits). Most findings, however, are derived from the web-based survey. Since AAAS already received each site's year-end report and is submitting the results to NSF, we do not duplicate that information here. Rather, GRG used those reports and plans only to supplement missing information or clarify data provided in survey responses. Several survey respondents explicitly noted that they had provided information to AAAS in their reports and did not wish to repeat information on the survey.

Reports to AAAS included descriptions of the activities conducted as well as attendees to those events. Reports varied widely in the level of detail provided to

AAAS, so the web-based survey included such detail (e.g. specific information about who attended programs and numbers of attendees, whether sites felt their programs were successful, whether programs existed before and will be sustained beyond the JPE program period) across all sites.

Additionally, the telephone interviews were intended to provide key staff members at the sites an opportunity to explain further or add to the information they provided in the web-based survey. In all interviews, participants thanked AAAS and Screenscope for the opportunity to participate in this project. They had no other information to add to what they described in the surveys.

All sites promoted the Journey to Planet Earth *series and JPE/AAAS outreach program through print media. All but the Miami Museum of Science also promoted the series and outreach program online.*

In the survey, participants were asked to describe up to three events conducted at their sites as a part of outreach activities. In some sites, multiple staff members responded to the survey, and different staff members often listed a different three events. Therefore, descriptions of individual sites may reflect more than three outreach events.

All sites promoted the *Journey to Planet Earth* series and JPE/AAAS outreach program through print media. All but the Miami Museum of Science also promoted the series and outreach program online. In interviews, staff members noted that it was challenging to connect with local PBS stations to promote their projects and wished they had had more infrastructure or assistance with doing so.

A brief description of the activities conducted at each site is presented in Table 22.

Of the activities conducted, 12 programs at six sites did not exist prior to participation in this project.

A vast majority of the programs will continue in the future.

Table 22
Overview of Activities Conducted by Site

Site	Event Title and Description of Purpose
The Academy of Science-St. Louis and the St. Louis Zoo	1. Junior Academy/Young Zoo Friends Collaborative Program: To engage both youth groups in environmental outreach activities; collaboration between organizations. 2. BioBlitz 2006: To connect the public, especially students) with environmental scientists. Students, families, and scientists worked together on a 24 hour snapshot of the ecosystem of Forest Park and collected data. 3. BioBlitz/*Journey to Planet Earth*: environmental celebration and report to the community: To present the results of the comparative data of 2004 and 2006 BioBlitz programs and generate support for future BioBlitz activities. To celebrate and express appreciation to the program participants. 4. Earth Day 2006: Increased public awareness of the zoo's conservation work. Taught the public about the partnerships between scientists and citizens. 5. Zoo Conservation Booth at AAAS Conference: Increased public awareness of the Saint Louis Zoo's conservation work. Taught the public about the partnerships between scientists and citizens. Visitors to the booth learned about the zoo's work on site and around the world. 6. Earth Day 2007-Party for the Planet: Provided activities and experiences for citizens to observe local wildlife and participate in citizen science activities. 7. Promote PBS showing of *Journey to Planet Earth* and related materials in zoo publications and on website.
California Academy of Sciences (San Francisco)	1. Explained ecology of great white sharks along CA coast. Program on shark eating habits; provided tools to public to determine sharks' diet by looking at the shape and function of their teeth 2. Explained seabird ecology in the Southern Ocean with emphasis on climate change and human seafood consumption. Advice to adopt sustainable personal behavior. 3. Program to explain marine mammal ecology along CA's continental shelf, and conservation with an emphasis on seafood consumption. 4. Informed general public about coral structures, biodiversity and vulnerability. 5. Migratory Bird Day: To encourage an awareness of migratory birds and share family time tracing, cutting and decorating a paper songbird or raptor. Real specimens, photographs and educational information was made available
California Science Center Foundation (Los Angeles)	1. Created outdoor garden/lab 2. Environmental education for community youth, Curator Kids Club: Familiarized students with basic principles of ecology, while encouraging them and their families to become more comfortable with and spend more time in nature.

Programs featured online components, handouts, multimedia, live specimens, exhibits, guest speakers, and field trips.

The audiences for the programs were wide and varied… The number of participants in a particular program ranged from 15 to an estimated 65,000.

Site	Event Title and Description of Purpose
Crystal Springs Preserve (Crystal Springs, FL)	1. Introduction to investigative citizen science: The goal was to empower kids with the knowledge to apply critical thinking and problem solving to scientific investigation of the health of a habitat. The final main event was a student summit, with workshops and brainstorming sessions on regional/global solutions to actual problems. Students shared data on the health of our region and created a profile of the region. 2. *Journey to Planet Earth* Summit: full day of science, thinking, hands on learning, with guest presenters, animal encounters, and conservation games. The theme was emblazoned on event shirts: "Empowering today's kids for a sustainable tomorrow." There was 100% participation at the event from students involved in collecting the citizen science data and raving reviews from adult mentors.
Louisville Science Center	1. Promotion through teacher professional development: Information about the CPE website and *JPE* series and website were discussed in two professional development sessions for teachers (main contact's response); During 1 day of the annual 2-week long workshop for teachers themed for earth science, incorporated activities out of the *JPE* Action kit. 2. The World Around Us Science Saturday: Promotion through Eco-Day – The World Around Us Science Saturday On June 10, 2006, the LSC celebrated Eco-Day. This day included many activities revolving around the subject of ecology. 3. Promotion through volunteer and staff training: Prior to the September 2005 opening of The World Around Us exhibit, several training sessions were conducted to prepare staff and volunteers to deliver education programs in the exhibit. 4. Whitney Young Scholars in Science after school Program: For one session of this program goal was to provide and supplement earth science instruction for 7th grade students using the JPE Action Kit.
McWane Science Center (Birmingham, AL)	1. Save Our Planet Anatomy of a River: What's In Your Watershed: To teach about our natural resources and their conservation (incorporated a segment from *JPE* to promote the series) 2. GLOBE Outreaches: Hands on earth science programming held in schools; used *Journey to Planet Earth* as a tool to help teachers prepare for the visit. 3. Home School Labs: Used *Journey to Planet Earth* as a teaching tool in home school labs.
Miami Museum of Science	1. Planet Earth Discovery Room: In the room, we are able to offer a variety of programs and activities related to the topics covered by the Planet Earth series for children and their parents, also to make aware of Planet Earth series and watch the episode
Seattle Parks & Recreation	1. Mapping My Place: Curriculum created by Homewaters Project.

Of the activities conducted, 12 programs at six sites (California Science Center Foundation, California Academy of Sciences, Crystal Springs Preserve, The Academy of Science-St. Louis and the St. Louis Zoo, and Miami Museum of Science) did not exist prior to participation in this project (see Table 23). Another 14 activities at five sites (California Science Center Foundation, Crystal Springs Preserve, The Academy of Science-St. Louis and the St. Louis Zoo, McWane Science Center, and Louisville Science Center) were extant, and monies provided supplemented and enhanced those programs and allowed them to continue.

A vast majority of the programs will continue in the future. Specifically, 20 of the programs across seven of the eight sites are planned to continue after the project's completion. The Academy of Science - St. Louis and the St. Louis Zoo site staff were unsure whether their programs would continue after the project's completion and they did not plan to continue to promote the *Journey to Planet Earth* series.

All but one live program (i.e., programs other than promotion of the *Journey to Planet Earth* series in print or online) were conducted on-site or at sites within the community. The exception was that the St. Louis Zoo ran its Zoo Conservation Booth at the AAAS Conference in order to increase public awareness of the zoo's conservation work and educate conference attendees about partnerships between scientists and citizens.

Three of the programs (Crystal Springs citizen science program, McWane Home School Labs and St. Louis' BioBlitz 2006) had online components. In addition to online components, programs featured handouts, multimedia, live specimens, exhibits, guest speakers, and field trips.

The audiences (including both intended and actual attendees) for the programs were wide and varied. Participants in the various programs ranged from teachers and parents to students of all ages, including school and home-school students and summer campers, to general museum visitors and members, community members, scientists, environmentalists, and museum staff and volunteers.

The number of participants in a particular program ranged from 15 (CA Academy of Sciences presentations about marine ecology) to an estimated 65,000 (the St. Louis Zoo's promotion of *Journey to Planet Earth*). On average, there were roughly 400 visitors per program (the average was taken without the outlier number of 65,000—a much larger participant base than for any other program).

Between one and 50 staff members participated in each program.

Fifteen of the programs included staff training components, and between one and six staff members were involved in developing each program. Between one and 50 staff members participated in each program.

Programs differed in terms of how often they were held, ranging from one time to every other week:

- 8 were one-time offerings
- 5 held a few times (2 – 4) during the active year

- 4 were held monthly
- 4 were held biweekly
- 2 were 10 – 12 months long.

85% of staff members surveyed indicated that the goals of their program were fully met.

A vast majority of staff (85%) indicated that the goals of their program were fully met. Some sites had collected feedback from staff and participants (either formally or informally) and noted positive reviews of and reactions to the program. Other staff members provided specific examples:

> *These programs were booked regularly by school groups and done for the general public - it served as a good tool to promote the series and prompted visitors to learn more about the program topic once they left the museum.* (McWane Science Center)

> *The teachers have created a curriculum that has been implemented and the students participate regularly in the activities…Students responded positively to the curriculum and to the field trips to natural areas that they had not experienced before. Their projects illustrated a better understanding of the environment and attitude toward the environment.* (California Science Center)

> *Many of our volunteers that attended those sessions continue to volunteer in The World Around Us exhibit.* (Louisville Science Center)

In telephone interviews, all staff reiterated their gratefulness for the ability to provide new programming and/or enrich existing programs.

Table 23
Features of Programs, by Site

Site	# Programs	Field trips	Internet component	Staff training component	# Staff to implement	Existed previously	Continue in future
The Academy of Science-St. Louis and the St. Louis Zoo	7	x	x	x	2-7	3 of 7	1 of 7
California Academy of Sciences	5			x	1-3	0	all
California Science Center	2			x	30	1 of 2	all
Crystal Springs Preserve	2		x	0	2	1 of 2	1 of 2
Louisville Science Center	4			x	3	all	all
McWane Science Center	3	x	x	x	1-7	all	all
Miami Museum of Science	1			x	20	0	all
Seattle Parks & Recreation	1			x	50	0	all

CONCLUSIONS AND RECOMMENDATIONS

Considering results both from the viewer study and evaluation of the outreach initiative, GRG offers the following recommendations that Screenscope and AAAS may wish to consider in future program and outreach efforts.

VIEWER STUDY

The documentary format on broadcast television was an excellent choice for conveying this type of environmental science content. Using a well-known and admired young actor, Matt Damon, drew in and kept the interest of viewers.

> ***Recommendation:*** *Continue to use video media formats (e.g. TV documentaries) to educate audiences about environmental science and consider additional venues through which to promote wider viewership. If additional funds for promotion are available for future broadcasts, using Damon or other well-known young people to promote JPE would draw attention to the issues among people who do not typically watch science programming, particularly on public television. GRG recognizes that it is extremely difficult to get even limited time to work with celebrities such as Damon (particularly given schedule and funding constraints). Whether or not working with such actors for promotion is feasible, GRG strongly recommends continuing to work with them as narrators.*

Viewers have strong emotional responses (e.g., anger at humans causing problems, disgust at slaughter of animals) to the real, difficult, and critical issues such as those raised in the program. Viewers were very glad they learned about the issues and also were thankful that they had been informed by GRG about the graphic images prior to viewing the program.

> ***Recommendation:*** *Screenscope should consider including a content advisory to warn viewers of the graphic images in future programs.*

Viewers enjoy those segments from which they believe they learn the most new information. **Furthermore, the more pronounced changes in participants' self-reported knowledge and interest were related to the living conditions of ocean animals**. Viewers had more prior knowledge about effects of global warming and over-fishing than they did about hunting ocean animals or the effect of pop culture on ocean animals. This was evidenced by their correct answers at pre-test on the topics of global warming and their perceived knowledge about these issues. Moreover, the interest in specific situations and animals increased more than did interest in climate change and sea level rise, more generally.

> ***Recommendation:*** *In future programs, Screenscope should continue to focus the themes of future productions on topics about which there is less*

knowledge in the target viewing population (as was the case with living conditions of ocean animals). Given that learning new information is more motivating to viewers, consider focusing individual program segments on areas about which there is less baseline knowledge (e.g. a focus on hunting ocean animals rather than on the effects of global warming).

Viewers of this program already believed that climate change and sea level rise posed a threat to the planet, even before viewing. Prior to viewing the program, nearly 90% of participants considered these to be at least *somewhat* serious threats. Yet, their appreciation for the magnitude of the problem did increase after viewing.

> ***Recommendation:*** *Screenscope should consider even wider dissemination of the program (e.g. beyond typical PBS audiences) in order to reach potential viewers who may be less informed – and even less convinced — about the threats of climate change and sea level rise. Programs that educate about the specific effects of climate change – and that viewers see as personally relevant – can continue to meet an important need.*

Inclusion of at least one segment that delivered good news contributed positively to viewers' overall reactions to the program. The segment that was the favorite of the most participants was the final segment on returning sea otters to Monterey Bay, California. Many viewers noted that it was their favorite because it conveyed a hopeful message. Additionally, participants often particularly enjoyed segments featuring animals they thought were fun, cute, or enjoyable (for instance, sea otters and penguins).

> ***Recommendation:*** *In future programs, continue to include stories of hope amid the stories with more bleak endings. Particularly for more challenging or disturbing subject matter, include segments that feature content to which participants feel a connection to their own lives. If people feel there is something they can do about an issue, they are more likely to relate to it.*

OUTREACH INITIATIVE

At several of the museums, beyond advertising the program, there was a loose connection between the issues presented. In the viewer study, participants did express interest in learning more and finding ways they might positively contribute to solutions.

> ***Recommendation:*** *Consider fostering a more explicit connection between the television program and outreach initiatives. For example, the narrator of the program might encourage viewers, "Check your local museum, aquarium or science center to see if there are programs or*

exhibits related to what you've just seen where you can learn more about these issues."

Outreach programs at the museums differed widely along many features: type of program, target audience, duration, size, whether they existed prior to and will continue after the project period. There also were wide variations in the types of reports and plans submitted to AAAS.

Recommendation: *Providing each site with a report template will assist them in providing data to AAAS. This will allow AAAS or other future outreach partners to obtain a more complete and consistent picture of the outreach activities created through a national community-based program such as Journey to Planet Earth.*

Staff at outreach sites reported difficulties connecting with local PBS stations to promote their programs. In prior GRG evaluations of other series, outreach sites valued partnerships with PBS stations, and such partnerships were most successful when partners' roles were explicit at the start of the project.

Recommendation: *Facilitate connections between site staff and their local PBS affiliate stations in order to further promote the series and outreach programs. Outline roles for partner stations and outreach sites. GRG recognizes that since each local PBS station is a semi-independent entity, large-scale coordination could be particularly challenging.*

Many of the outreach activities at sites were completed prior to GRG being contracted to begin the evaluation. Thus, the data from the outreach evaluation are sparse compared to the data from the viewer study.

Recommendation: *Initiate evaluation activities at the time outreach programming commences, so that evaluation data may be more thorough and obtained prospectively during program implementation rather than retrospectively. Having the evaluators as well as the outreach program director make site visits to programs would enable richer data collection – seeing "on-the-ground" activities of the sites.*

APPENDIX A: SUPPLEMENTARY DATA

Table A1
Ratings for Segment One: Over-fishing

		Extremely	Very	Generally	A little	Not at All
Interesting	**Mean = 4.30**	22	17	8	0	0
Touching	**Mean = 4.09**	19	14	13	1	0
Informative	**Mean = 4.53**	31	10	6	0	0
Engaging	**Mean = 4.15**	22	12	11	2	0
Clarity of material presented	**Mean = 4.43**	24	19	4	0	0
Visually appealing	**Mean = 4.30**	25	11	9	1	0

N=46 – 47

Table A2
Ratings for Segment Two: Pop Culture and Its Effects on Ocean Animals

		Extremely	Very	Generally	A little	Not at All
Interesting	**Mean = 4.49**	27	16	4	0	0
Touching	**Mean = 4.34**	23	19	3	2	0
Informative	**Mean = 4.49**	29	13	4	1	0
Engaging	**Mean = 4.30**	22	18	4	2	0
Clarity of material presented	**Mean = 4.47**	25	20	1	1	0
Visually appealing	**Mean = 4.45**	27	15	4	1	0

N=46 – 47

Table A3
Ratings for Segment Three: Effects of global warming

		Extremely	Very	Generally	A little	Not at All
Interesting	**Mean = 4.55**	31	11	5	0	0
Touching	**Mean = 4.45**	30	9	7	1	0
Informative	**Mean = 4.62**	31	14	2	0	0
Engaging	**Mean = 4.51**	28	15	4	0	0
Clarity of material presented	**Mean = 4.45**	28	14	3	2	0
Visually appealing	**Mean = 4.62**	32	12	3	0	0

N=47

Table A4
Ratings for Segment Four: Chinook Salmon in the Klamath River

	Extremely	Very	Generally	A little	Not at All
Interesting **Mean = 4.38**	26	15	4	2	0
Touching **Mean = 4.23**	25	11	0	1	1
Informative **Mean = 4.49**	28	14	5	0	0
Engaging **Mean = 4.26**	24	14	6	3	0
Clarity of material presented **Mean = 4.38**	24	17	6	0	0
Visually appealing **Mean =4.34**	23	17	7	0	0

N=47

Table A5
Ratings for Segment Five: Hunting wild dolphins in Japan

	Extremely	Very	Generally	A little	Not at All
Interesting **Mean = 4.70**	35	10	2	0	0
Touching **Mean = 4.83**	41	4	2	0	0
Informative **Mean = 4.70**	35	10	2	0	0
Engaging **Mean = 4.66**	36	6	5	0	0
Clarity of material presented **Mean = 4.62**	32	12	3	0	0
Visually appealing **Mean = 4.32**	29	10	4	2	2

N=47

Table A6
Ratings for Segment Six: Returning the Sea Otter to Monterey Bay, California

	Extremely	Very	Generally	A little	Not at All
Interesting **Mean = 4.30**	23	15	9	0	0
Touching **Mean = 4.28**	24	12	11	0	0
Informative **Mean = 4.38**	25	16	5	1	0
Engaging **Mean = 4.28**	23	15	8	1	0
Clarity of material presented **Mean = 4.36**	22	20	5	0	0
Visually appealing **Mean = 4.38**	25	16	5	1	0

N=47

Table A7
Attention to Environmental Issues, Pre-Viewing

	Never	Once or twice	Several Times
Discussed current environmental issues with friends, family, or colleagues	2	20	25
Noticed stories in the news about environmental issues	1	14	32
Read a book about environmental issues	25	16	6
Watched a television program about environmental issues	6	24	17
Visited a Web site to learn about environmental issues	17	15	15
Attended a lecture or presentation about environmental issues	37	8	2
Visited a museum or science center	27	14	6

N=47

Table A8
Attention to Environmental Issues, Post-Viewing

	Yes	No	Not yet, but I plan to
Discussed current environmental issues with friends, family, or colleagues	39	7	1
Read a book about environmental issues similar to those presented in *Journey to Planet Earth: State of the Ocean's Animals*	4	29	14
Watched a television program about environmental issues	28	8	14
Visited other Web sites to learn about environmental issues to those presented in *Journey to Planet Earth: State of the Ocean's Animals*	17	16	14
Attended a lecture or presentation about environmental issues	3	32	12
Visited a museum or science center	14	20	13
Tried to stay more up-to-date on cutting edge environmental issues in general	31	10	6

N=47

Table A9
Likely Attention to Environmental Stories, Post-Viewing

Likelihood of paying attention to a story or news piece about:	Extremely likely	Very likely	Moderately likely	Somewhat likely	Not at all likely
Climate change **Mean = 4.19**	24	15	3	3	2
Sea level rise **Mean = 4.09**	22	16	3	3	3
Extinction threats to ocean animals, such as fish, polar bears, penguins, sharks, or sea turtles **Mean = 4.47**	27	16	3	1	0
Over-fishing of ocean animals **Mean = 4.23**	22	15	9	1	0
Effects of pop culture on ocean animals **Mean = 3.77**	14	14	15	2	2
Effects of global warming on ocean animals **Mean = 4.17**	22	15	8	0	2
Threats to migration patterns of salmon or other ocean animals **Mean = 4.17**	20	18	7	1	1
Hunting of ocean animals, such as wild dolphins **Mean = 4.34**	26	14	5	1	1
Returning ocean animals to their habitats **Mean = 4.23**	21	18	6	2	0
Other environmental issues similar to those presented in *Journey to Planet Earth: The State of the Ocean's Animals* **Mean = 4.09**	17	19	9	2	0

N=47

Table A10
Perception of Threat of Climate Change & Sea Level Rise, Pre/Post Comparison

How serious a threat to the planet is:	Extremely serious	Very serious	Somewhat serious	A little bit serious	Not at all serious	I don't know
PRE: Climate change **Mean = 4.04**	17	17	8	2	1	2
POST: Climate change **Mean = 4.36**	28	11	6	1	1	0
PRE: Sea level rise **Mean = 3.93**	14	16	12	1	1	3
POST Sea level rise **Mean = 4.28**	24	13	7	2	0	1

N=47

Table A11
Knowledge about Environmental Issues, Pre and Post-Viewing

Pre-viewing	I am an expert in this field	I know a lot	I know a fair amount	I know a little bit	I know almost nothing
Sea level rise **Mean = 2.33**	0	5	15	16	10
Climate change **Mean = 2.76**	0	10	17	17	2
The living conditions of various ocean animals **Mean = 2.49**	0	5	20	15	7
Post-viewing increases in knowledge					
	Increased extremely	Increased a lot	Increased somewhat	Increased a little	Did not increase
Sea level rise **Mean = 3.85**	15	17	10	3	2
Climate change **Mean = 3.70**	15	13	13	2	4
Living conditions of ocean animals **Mean = 4.24**	24	10	11	1	0

N=46–47

Table A12
Interest in Learning about Environmental Issues, Pre and Post Viewing

	Extremely interested	**Very interested**	**Moderately interested**	**Somewhat interested**	**Not at all interested**	**I don't know**
	Pre viewing interest in learning more					
Sea level rise **Mean = 3.66**	16 (34%)	9 (19%)	9 (19%)	8 (17%)	2 (4%)	2 (4%)
Climate change **Mean = 3.78**	17 (36%)	11 (23%)	10 (21%)	7 (15%)	1 (2%)	1 (2%)
The living conditions of various ocean animals **Mean = 3.76**	15 (32%)	14 (30%)	9 (19%)	7 (15%)	1 (2%)	1 (2%)
	Post viewing motivation to learn more					
	Increased Extremely	**Increased A lot**	**Increased Somewhat**	**Increased A little**	**Did Not Increase**	--
Sea level rise **Mean = 3.36**	13 (28%)	10 (21%)	12 (26%)	5 (11%)	7 (15%)	--
Climate change **Mean = 3.57**	13 (28%)	16 (34%)	9 (19%)	3 (6%)	6 (13%)	--
	Post viewing increases in interest					
Sea level rise **Mean = 3.77**	13 (28%)	18 (38%)	9 (19%)	6 (13%)	1 (2%)	
Climate change **Mean = 3.65**	15 (33%)	12 (26%)	11 (24%)	4 (9%)	4 (9%)	
Living conditions of ocean animals **Mean = 4.30**	26 (55%)	11 (23%)	8 (17%)	2 (4%)	0	

N=46-47; Higher average scores reflect more positive responses.

APPENDIX B: EVALUATION INSTRUMENTS

VIEWER STUDY PRE-VIEWING SURVEY

Journey to Planet Earth: The State of the Ocean's Animals
Pre-Viewing Survey

Welcome to the *Journey to Planet Earth: The State of the Ocean's Animals* pre-viewing survey!

Thank you for participating in the evaluation of Screenscope's *Journey to Planet Earth* series. The survey should take less than 15 minutes to complete. As you move through the survey, use the "back" and "next" buttons at the bottom of the screen. Do NOT use your browser's buttons as this may result in lost data.

To begin the survey, enter the ID number from your email invitation in the box below and press "next."

1. What one resource do you rely on the *most* to get information on the latest advancements in science?
   - ❑ National news broadcast
   - ❑ Local news broadcast
   - ❑ An online news source
   - ❑ Public radio news
   - ❑ Science documentaries, programs, and movies
   - ❑ National newspaper
   - ❑ Regional/local newspaper
   - ❑ Weekly newspaper science pieces such as The Science Times
   - ❑ Science-based Web site
   - ❑ Radio programs such as Science Friday
   - ❑ Magazines
   - ❑ Classes and/or lectures
   - ❑ Friends and/or family

   - ❑ I do not seek out information on the latest advancements in science.

2. In the past month, how many times have you visited the PBS Web site (www.pbs.org)?
   - ❑ I have not visited the Web site in the past month.
   - ❑ One time
   - ❑ Two or three times
   - ❑ Four or five times
   - ❑ More than five times

3. In the past month have you:

	Never	Once or twice	Several Times
Discussed current environmental issues with friends, family, or colleagues	❑	❑	❑
Noticed stories in the news about environmental issues	❑	❑	❑
Read a book about environmental issues	❑	❑	❑
Watched a television program about environmental issues	❑	❑	❑
Visited a Web site to learn about environmental issues	❑	❑	❑
Attended a lecture or presentation about environmental issues	❑	❑	❑
Visited a museum or science center	❑	❑	❑

4. Compared to most people you know:

	Much Less	Less	No More or Less	More	Much More
How interested are you in science?	❑	❑	❑	❑	❑
How interested are you in environmental issues?	❑	❑	❑	❑	❑
How current is your knowledge of the latest developments in science?	❑	❑	❑	❑	❑
How current is your knowledge of the latest developments in environmental issues?	❑	❑	❑	❑	❑

5. In the past month, have you heard or seen a story about any of the following topics (e.g., on the news, on TV, at a movie, in a book, at an event)? Check all that apply.
   ❑ Climate change
   ❑ Sea level rise
   ❑ Extinction threats to ocean animals, such as fish, polar bears, penguins, sharks, or sea turtles
   ❑ Over-fishing of ocean animals
   ❑ Effects of pop culture on ocean animals
   ❑ Effects of global warming on ocean animals
   ❑ Threats to migration patterns of salmon or other ocean animals
   ❑ Hunting of ocean animals, such as wild dolphins
   ❑ Returning ocean animals to their habitats ❑ None of the above

Your Knowledge about Climate Change and Sea Level Rise

6. How knowledgeable would you say you are about the following topics?

	I am an expert in this field	I know a lot	I know a fair amount	I know a little bit	I know almost nothing
Climate change	❑	❑	❑	❑	❑
Sea level rise	❑	❑	❑	❑	❑
The living conditions of various ocean animals (e.g., sea turtles, sharks, Pacific salmon, Atlantic cod, emperor penguins, sea otters, or wild dolphins)	❑	❑	❑	❑	❑

7. How interested are you in learning more about the following topics?

	Extremely interested	Very interested	Somewhat interested	A little interested	Not at all interested	I don't know; I've never heard of this topic
Climate change	❑	❑	❑	❑	❑	❑
Sea level rise	❑	❑	❑	❑	❑	❑
The living conditions of various ocean animals (e.g., sea turtles, sharks, Pacific salmon, Atlantic cod, emperor penguins, sea otters, or wild dolphins)	❑	❑	❑	❑	❑	❑

[In an effort to prevent the multiple choice questions from influencing responses to the previous questions, the online survey will not allow respondent to go back after this point. The rest of these questions also appear on the follow-up survey.]

8. How serious a threat to the planet is climate change?
   - ❑ Not at all serious
   - ❑ A little bit serious
   - ❑ Somewhat serious
   - ❑ Very serious
   - ❑ Extremely serious
   - ❑ I don't know

9. How serious a threat to the planet is sea level rise?
   - ❑ Not at all serious
   - ❑ A little bit serious
   - ❑ Somewhat serious
   - ❑ Very serious
   - ❑ Extremely serious
   - ❑ I don't know

Please answer each of the following questions to the best of your ability. Many of the questions refer to recent scientific events, and you may or may not be familiar with the topics. Please do not look up the answers or have anybody assist you. The producers are interested in learning what people already know before they watch a program.

[for the questions below about extinction threat, the bold choice is the correct answer]

10. Which of the following choices describes the greatest threat to emperor penguins?
    A. Their main sources of nutrition -- fish and squid -- are near extinction.
    B. Global warming is beginning to melt the sea ice surrounding the Antarctic where emperor penguins reproduce and raise their young.
    C. Offshore oil operations pose great risks to penguins' habitats, since emissions or spills are discharged onto the sea ice.
    D. As global warming is causing shorter winters, Emperor penguins' eggs do not have sufficient time to incubate.

11. Which of the following choices describes the greatest threat to Pacific salmon?
    A. Droughts and dams have diminished the water supply in the rivers where salmon migrate so the salmon can't reach their natural spawning areas.
    B. The river water is becoming too warm for the eggs to survive.
    C. As non-native, farmed fish enter wild fish populations, they introduce diseases fatal to wild fish.
    D. Commercial fishing is permitted in the Pacific salmon's natural spawning areas.

12. Which of the following choices describes the greatest threat to sea turtles?
    A. The sea turtles are less able to defend themselves against predators due to the decrease in coral reefs.
    B. The fishing industry targets hatchlings, which are considered a culinary delicacy.
    C. Sea turtles are being drowned in fishing nets or killed as by-catch by the fishing industry
    D. As water levels rise, the beaches where sea turtles nest may disappear within a few years.

13. Which of the following choices describes the greatest threat to sharks?
    - **A. Sharks are being killed so that their fins can be sold for shark fin soup.**
    - B. Sharks' prey are moving away to other areas as the oceans get warmer.
    - C. Sharks are being killed intentionally following reported lethal shark attacks.
    - D. To reduce shark attacks near beaches, sharks are being trapped and killed by shark meshing.

14. Which of the following choices describes the greatest threat to polar bears?
    - **A. Polar bears hunt seals from sea ice, and the ice is disappearing as a result of climate change.**
    - B. Hunting of polar bears without a quota system or knowledge of hunting practices contributes to their decline.
    - C. Long-range persistent organic pollutants represent serious population-level threat to polar bears' existence.
    - D. Polar bear's multiple layers of fur and blubber have inhibited their ability to adapt to the warmer climates caused by global warming.

15. Which of the following choices describes the greatest threat to Atlantic cod?
    - A. The plankton on which cod feed are dying off due to rising ocean temperatures.
    - B. Climate change appears to be the main factor responsible for the continued decline of Atlantic cod in the North Sea.
    - C. Atlantic hurricanes are disrupting ocean current patterns, so cod are losing their natural hatching environments.
    - **D. Atlantic cod continue to be over fished, as they have been for decades, and fisheries are not sustainable at the current levels of fishing effort.**

Final Questions About You:

16. How often do you watch science-related programs on TV?
    - ❑ Never
    - ❑ Once a year
    - ❑ A few times a year
    - ❑ Once a month
    - ❑ A few times a month
    - ❑ Once a week or more

17. Have you watched any of the episodes of *Journey to Planet Earth?* The ten episodes include *Rivers of Destiny; The Urban Explosion, Land of Plenty; Land of Want; On the Brink; Seas of Grass; Hot Zones; Future Conditional; The State of the Planet; The State of the Planet's Wildlife;* and *The State of the Ocean's Animals.*
    - ❑ I have watched 4 or more episodes
    - ❑ I have watched 2-3 episodes
    - ❑ I have watched 1 episode
    - ❑ I have not watched any of the *Journey to Planet Earth* episodes

18. Have you watched *Journey to Planet Earth: The State of the Ocean's Animals?*
    - ❑ Yes
    - ❑ No

19. What is the highest level of education you have completed?
    - ❑ Some high school
    - ❑ High school degree
    - ❑ Some college
    - ❑ College degree
    - ❑ Some graduate/professional school
    - ❑ Graduate/professional degree
    - ❑ Other: _____

20. What is your occupation? _____

21. Are you:
    - ❑ Female
    - ❑ Male

22. How do you describe yourself? (*Check all that apply.*)
    - ❑ Caucasian or White
    - ❑ Asian or Pacific Islander
    - ❑ Latino or Hispanic
    - ❑ Native American
    - ❑ African-American or Black
    - ❑ Other (describe) _____

23. What is your age?
    - ❑ 18-34 years-old
    - ❑ 50-64
    - ❑ 35-49
    - ❑ 65 or older

24. What is your total annual household income (before taxes)?
    - ❑ Less than $20,000
    - ❑ $20,000 to $24,999
    - ❑ $25,000 to $34,999
    - ❑ $35,000 to $49,999
    - ❑ $50,000 to 74,999
    - ❑ $75,000 to $99,999
    - ❑ $100,000 or more

Thank you! This completes the pre-viewing survey.

VIEWER STUDY POST-VIEWING SURVEY

Journey to Planet Earth: The State of the Ocean's Animals
Viewer Study Post-Survey (within 2 days post-viewing)

Welcome to the *Journey to Planet Earth: The State of the Ocean's Animals* post-viewing survey!

Thank you for continuing to participate in the evaluation of Screenscope's *Journey to Planet Earth* series. The survey should take less than 15 minutes to complete. As you move through the survey, use the "back" and "next" buttons at the bottom of the screen. Do NOT use your browser's buttons as this may result in lost data.

To begin the survey, enter the ID number from your email invitation in the box below and press "next."

1. Did you watch the entire *Journey to Planet Earth: The State of the Ocean's Animals* program?
   - ❑ Yes, I watched the entire program. (Skip to question 2)
   - ❑ No, I only watched some segments. (Skip to screen stating: "Please watch the entire DVD and then re-start the survey, as we will be asking you about all parts of the episode. Thank you."

2. With whom did you watch *Journey to Planet Earth: The State of the Ocean's Animals*? *(Check all that apply)*
   - ❑ Alone
   - ❑ With family
   - ❑ With friends
   - ❑ With colleagues
   - ❑ Other; please describe: _____

3. In one or two sentences, please describe your overall impressions of the *Journey to Planet Earth: The State of the Ocean's Animals* program:

4. Please write one or two sentences to describe <u>one new thing</u> you learned from watching *Journey to Planet Earth: The State of the Ocean's Animals*.

5. How would you describe the content presented in *Journey to Planet Earth: The State of the Ocean's Animals*?
   - ❑ It was very easy to understand.
   - ❑ It was fairly easy to understand.
   - ❑ It was neither easy nor difficult to understand.
   - ❑ It was fairly difficult to understand.
   - ❑ It was very difficult to understand.

	Excellent	Very Good	Good	Fair	Poor
6. Overall, how would you rate the program?	❑	❑	❑	❑	❑
7. How would you rate the show's narrator, Matt Damon?	❑	❑	❑	❑	❑
8. How would you rate the cinematography of the program (i.e. the "movie photography," program's visual appeal)?	❑	❑	❑	❑	❑
9. How would you rate the program's music?	❑	❑	❑	❑	❑

Please elaborate on any or all of the above ratings (whether negative or positive):

10. Please rate the following for Segment 1: Over-fishing (Atlantic cod). If there is a question you can't answer for a particular segment, select "I don't know," but please try to answer every question as best you can.

	Extremely	Very	Generally	A Little	Not at All	I don't know
How interesting was it?	❑	❑	❑	❑	❑	❑
How touching was it?	❑	❑	❑	❑	❑	❑
How informative was it?	❑	❑	❑	❑	❑	❑
How engaging was it?	❑	❑	❑	❑	❑	❑
How clear was the information presented in it?	❑	❑	❑	❑	❑	❑
How visually appealing was it?	❑	❑	❑	❑	❑	❑

11. Please rate the following for Segment 2: Pop Culture and Its Effects on Ocean Animals (sharks). If there is a question you can't answer for a particular segment, select "I don't know," but please try to answer every question as best you can.

	Extremely	Very	Generally	A Little	Not at All	I don't know
How interesting was it?	❑	❑	❑	❑	❑	❑
How touching was it?	❑	❑	❑	❑	❑	❑
How informative was it?	❑	❑	❑	❑	❑	❑
How engaging was it?	❑	❑	❑	❑	❑	❑
How clear was the information presented in it?	❑	❑	❑	❑	❑	❑
How visually appealing was it?	❑	❑	❑	❑	❑	❑

12. Please rate the following for Segment 3: Effects of global warming (sea turtles and emperor penguins). If there is a question you can't answer for a particular segment, select "I don't know," but please try to answer every question as best you can.

	Extremely	Very	Generally	A Little	Not at All	I don't know
How interesting was it?	❑	❑	❑	❑	❑	❑
How touching was it?	❑	❑	❑	❑	❑	❑
How informative was it?	❑	❑	❑	❑	❑	❑
How engaging was it?	❑	❑	❑	❑	❑	❑
How clear was the information presented in it?	❑	❑	❑	❑	❑	❑
How visually appealing was it?	❑	❑	❑	❑	❑	❑

13. Please rate the following for Segment 4: Chinook Salmon in the Klamath River (Pacific salmon). If there is a question you can't answer for a particular segment, select "I don't know," but please try to answer every question as best you can.

	Extremely	Very	Generally	A Little	Not at All	I don't know
How interesting was it?	❑	❑	❑	❑	❑	❑
How touching was it?	❑	❑	❑	❑	❑	❑
How informative was it?	❑	❑	❑	❑	❑	❑
How engaging was it?	❑	❑	❑	❑	❑	❑
How clear was the information presented in it?	❑	❑	❑	❑	❑	❑
How visually appealing was it?	❑	❑	❑	❑	❑	❑

14. Please rate the following for Segment 5: Hunting wild dolphins in Japan. If there is a question you can't answer for a particular segment, select "I don't know," but please try to answer every question as best you can.

	Extremely	Very	Generally	A Little	Not at All	I don't know
How interesting was it?	❑	❑	❑	❑	❑	❑
How touching was it?	❑	❑	❑	❑	❑	❑
How informative was it?	❑	❑	❑	❑	❑	❑
How engaging was it?	❑	❑	❑	❑	❑	❑
How clear was the information presented in it?	❑	❑	❑	❑	❑	❑
How visually appealing was it?	❑	❑	❑	❑	❑	❑

15. Please rate the following for Segment 6: Returning the Sea Otter to Monterey Bay, California. If there is a question you can't answer for a particular segment, select "I don't know," but please try to answer every question as best you can.

	Extremely	Very	Generally	A Little	Not at All	I don't know
How interesting was it?	❑	❑	❑	❑	❑	❑
How touching was it?	❑	❑	❑	❑	❑	❑
How informative was it?	❑	❑	❑	❑	❑	❑
How engaging was it?	❑	❑	❑	❑	❑	❑
How clear was the information presented in it?	❑	❑	❑	❑	❑	❑
How visually appealing was it?	❑	❑	❑	❑	❑	❑

16. Which segment from this program was your favorite?

❑ Segment 1: Over-fishing (Atlantic cod)
❑ Segment 2: Pop Culture and Its Effects on Ocean Animals (sharks)
❑ Segment 3: Effects of global warming (sea turtles and emperor penguins)
❑ Segment 4: Chinook Salmon in the Klamath River (Pacific salmon)
❑ Segment 5: Hunting wild dolphins in Japan
❑ Segment 6: Returning the Sea Otter to Monterey Bay, CA

Why was this segment your favorite?

17. Which segment from this program was your LEAST favorite?

- ❑ Segment 1: Over-fishing (Atlantic cod)
- ❑ Segment 2: Pop Culture and Its Effects on Ocean Animals (sharks)
- ❑ Segment 3: Effects of global warming (sea turtles and emperor penguins)
- ❑ Segment 4: Chinook Salmon in the Klamath River (Pacific salmon)
- ❑ Segment 5: Hunting wild dolphins in Japan
- ❑ Segment 6: Returning the Sea Otter to Monterey Bay, CA

Why was this segment your least favorite?

18. Please indicate the option that best describes your experiences with the content presented in this program:

	This was the first time I learned about this topic.	I had some knowledge about this topic, but this was the first time I watched a program on the subject.	I had watched a program on this subject before.
Segment 1: Over-fishing (Atlantic cod)	❑	❑	❑
Segment 2: Pop Culture and Its Effects on Ocean Animals (sharks)	❑	❑	❑
Segment 3: Effects of global warming (sea turtles and emperor penguins)	❑	❑	❑
Segment 4: Chinook Salmon in the Klamath River (Pacific salmon)	❑	❑	❑
Segment 5: Hunting wild dolphins in Japan	❑	❑	❑
Segment 6: Returning the Sea Otter to Monterey Bay, California	❑	❑	❑

	Increased extremely	Increased a lot	Increased somewhat	Increased a little	Did not increase
19. How much did the program increase your knowledge about sea level rise?	❑	❑	❑	❑	❑
20. How much did the program increase your interest in the topic of sea level rise?	❑	❑	❑	❑	❑
21. How much did the program increase your knowledge about climate change?	❑	❑	❑	❑	❑
22. How much did the program increase your interest in the topic of climate change?	❑	❑	❑	❑	❑
23. How much did the program increase your knowledge about the living conditions of various ocean animals?	❑	❑	❑	❑	❑
24. How much did the program increase your interest in the living conditions of various ocean animals?	❑	❑	❑	❑	❑

25. Considering the show overall, how much of the information presented in *Journey to Planet Earth: State of the Ocean's Animals* was new to you?
    - ❑ Almost none of the information presented was new to me.
    - ❑ Some of the information presented was new to me.
    - ❑ Most of the information presented was new to me.
    - ❑ Almost all of the information presented was new to me.

26. Please write any additional comments about *Journey to Planet Earth: The State of the Ocean's Animals.*

Thank you! This completes the post-viewing survey. In 2 weeks, you will receive an email containing the web link to the final survey in this study.

VIEWER STUDY FOLLOW-UP SURVEY

Journey to Planet Earth: State of the Ocean's Animals
Viewer Study Final Follow-Up Survey (2 weeks post-viewing)

Welcome to the *Journey to Planet Earth: State of the Ocean's Animals* final follow-up survey!

Thank you for participating in the evaluation of Screenscope's *Journey to Planet Earth* series. The survey should take less than 15 minutes to complete.

To begin the survey, please enter your ID number, found in your email invitation then click on the "Begin Survey" button. As you move from page to page in the form, use the Back and Continue buttons at the bottom of the page to navigate. Please, do NOT use your browser's buttons - if you do, your information will be lost.

1. How effective was *Journey to Planet Earth: State of the Ocean's Animals* at:

	Extremely effective	**Very effective**	**Generally Effective**	**A little effective**	**Not at all effective**
Convincing you that sea level rise to is relevant to your life?	❑	❑	❑	❑	❑
Convincing you that climate change is relevant to your life?	❑	❑	❑	❑	❑
Convincing you that there are significant threats to the ocean's animals?	❑	❑	❑	❑	❑

	Increased extremely	**Increased a lot**	**Increased somewhat**	**Increased a little**	**Did not increase**
2. Since watching the program, how much has your motivation to learn about sea level rise increased?	❑	❑	❑	❑	❑
3. Since watching the program, how much has your motivation to learn about climate change increased?	❑	❑	❑	❑	❑

4. How likely are to you pay attention to a story or news piece about the following?

	Extremely likely	Very likely	Moderately likely	Somewhat likely	Not at all likely
Climate change	❑	❑	❑	❑	❑
Sea level rise	❑	❑	❑	❑	❑
Extinction threats to ocean animals, such as fish, polar bears, penguins, sharks, or sea turtles	❑	❑	❑	❑	❑
Over-fishing of ocean animals	❑	❑	❑	❑	❑
Effects of pop culture on ocean animals	❑	❑	❑	❑	❑
Effects of global warming on ocean animals	❑	❑	❑	❑	❑
Threats to migration patterns of salmon or other ocean animals	❑	❑	❑	❑	❑
Hunting of ocean animals, such as wild dolphins	❑	❑	❑	❑	❑
Returning ocean animals to their habitats	❑	❑	❑	❑	❑
Other environmental issues similar to those presented in *Journey to Planet Earth: State of the Ocean's Animals*	❑	❑	❑	❑	❑

5. In the time since you completed the pre-viewing survey, how many times have you visited the Journey to Planet Earth Web site?

❑ I have visited the Web site many times (More than 5 times)
❑ I have visited the Web site several times (4-5 times)
❑ I have visited the Web site a few times (2-3 times)
❑ I have visited the Web site one time
❑ I have not visited the Web site, but I plan to.
❑ I have not visited the Web site, and I do NOT plan to.

6. As a result of watching *Journey to Planet Earth: State of the Ocean's Animals*, have you:

	Yes	No	Not yet, but I plan to
Discussed current environmental issues with friends, family, or colleagues	❑	❑	❑
Read a book about environmental issues similar to those presented in *Journey to Planet Earth: State of the Ocean's Animals*	❑	❑	❑
Watched a television program about environmental issues	❑	❑	❑
Visited other Web sites to learn about environmental issues to those presented in *Journey to Planet Earth: State of the Ocean's Animals*	❑	❑	❑
Attended a lecture or presentation about environmental issues	❑	❑	❑
Visited a museum or science center	❑	❑	❑
Tried to stay more up-to-date on cutting edge environmental issues in general	❑	❑	❑

7. In what ways, if any, are the stories from *Journey to Planet Earth: State of the Ocean's Animals* relevant to your own life?

8. Please describe <u>the most interesting thing</u> you learned from watching each of the following stories on *Journey to Planet Earth: State of the Ocean's Animals:*

Segment 1: Over-fishing (Atlantic cod)
Segment 2: Pop Culture and Its Effects on Ocean Animals (sharks)
Segment 3: Effects of global warming (sea turtles and emperor penguins)
Segment 4: Chinook Salmon in the Klamath River (Pacific salmon)
Segment 5: Hunting wild dolphins in Japan
Segment 6: Returning the Sea Otter to Monterey Bay, California

Your Knowledge about Climate Change and Sea Level Rise

9. How serious a threat to the planet is climate change?
   - ❑ Extremely serious
   - ❑ Very serious
   - ❑ Somewhat serious
   - ❑ A little bit serious
   - ❑ Not at all serious
   - ❑ I don't know

10. How serious a threat to the planet is sea level rise?
   - ❑ Extremely serious
   - ❑ Very serious
   - ❑ Somewhat serious
   - ❑ A little bit serious
   - ❑ Not at all serious
   - ❑ I don't know

[In an effort to prevent the multiple choice questions from influencing responses to the previous questions, the online survey will not allow respondent to go back after this point.]

Please answer each of the following questions to the best of your ability. Answer these questions based on your memory of the *Journey to Planet Earth: The State of the Ocean's Animals* program. DO NOT go back and re-watch the program in order to answer these questions.

[For the questions below about extinction, the bold choice is the correct answer. These questions are in a different order from how they were in the pre survey.]

11. Which of the following choices describes the greatest threat to Atlantic cod?
   A. The plankton on which cod feed are dying off due to rising ocean temperatures.
   B. Climate change appears to be the main factor responsible for the continued decline of Atlantic cod in the North Sea.
   C. Atlantic hurricanes are disrupting ocean current patterns, so cod are losing their natural hatching environments.
   D. Atlantic cod continue to be over fished, as they have been for decades, and fisheries are not sustainable at the current levels of fishing effort.

12. Which of the following choices describes the greatest threat to Pacific salmon?

A. Droughts and dams have diminished the water supply in the rivers where salmon migrate so the salmon can't reach their natural spawning areas.

B. The river water is becoming too warm for the eggs to survive.

C. As non-native, farmed fish enter wild fish populations, they introduce diseases fatal to wild fish.

D. Commercial fishing is permitted in the Pacific salmon's natural spawning areas.

13. Which of the following choices describes the greatest threat to sharks?

A. Sharks are being killed so that their fins can be sold for shark fin soup.

B. Sharks' prey are moving away to other areas as the oceans get warmer.

C. Sharks are being killed intentionally following reported lethal shark attacks.

D. To reduce shark attacks near beaches, sharks are being trapped and killed by shark meshing.

14. Which of the following choices describes the greatest threat to polar bears?

A. Polar bears hunt seals from sea ice, and the ice is disappearing as a result of climate change.

B. Hunting of polar bears without a quota system or knowledge of hunting practices contributes to their decline.

C. Long-range persistent organic pollutants represent serious population-level threat to polar bears' existence.

D. Polar bear's multiple layers of fur and blubber have inhibited their ability to adapt to the warmer climates caused by global warming.

15. Which of the following choices describes the greatest threat to emperor penguins?

A. Their main sources of nutrition -- fish and squid -- are near extinction.

B. **Global warming is beginning to melt the sea ice surrounding the Antarctic where emperor penguins reproduce and raise their young.**

C. Offshore oil operations pose great risks to penguins' habitats, since emissions or spills are discharged onto the sea ice.

D. As global warming is causing shorter winters, Emperor penguins' eggs do not have sufficient time to incubate.

16. Which of the following choices describes the greatest threat to sea turtles?

A. The sea turtles are less able to defend themselves against predators due to the decrease in coral reefs.

B. The fishing industry targets hatchlings, which are considered a culinary delicacy.

C. Sea turtles are being drowned in fishing nets or killed as by-catch by the fishing industry

D. As water levels rise, the beaches where sea turtles nest may disappear within a few years.

Your responses have been submitted.

This completes the follow-up survey. Thank you!

OUTREACH EVALUATION WEB-BASED SURVEY

This survey is intended to obtain a general sense of programs developed and made available in communities as a result of the AAAS outreach grant associated with Screenscope's series, ***Journey to Planet Earth (JPE)***, which aired on PBS NOVA. Several of the sites completed their outreach activities many months or even a year ago. Site staff may have changed, and specific details may not be easy to recall. However, it is important to us to obtain as much information as possible across the sites. Therefore, please answer the questions as best you can. Some of these questions may have been answered in your final report submitted to AAAS. Please feel free to refer to the report as you complete this survey.

How many separate programs were offered as a result of the AAAS grant?_____

(Ask same set of questions for each program, include space for up to three.)
PROGRAM #1:
Please describe the program briefly:

Goal of Program:

To what extent was the goal met? (Describe evidence)

Who was the target audience? *(Select all that apply.)*

- ❑ Teachers
- ❑ Homeschool teachers
- ❑ Parents
- ❑ Students (which grades?)____
- ❑ Homeschool students
- ❑ Kids below 5 years
- ❑ General visitors
- ❑ Members of the surrounding community
- ❑ No specific target audience
- ❑ Other (describe)_____

Who actually participated? *(Select all that apply.)*

- ❑ Teachers
- ❑ Homeschool teachers
- ❑ Parents
- ❑ Students (which grades?)____
- ❑ Homeschool students
- ❑ Kids below 5 years
- ❑ General visitors
- ❑ Members of the surrounding community
- ❑ No specific target audience
- ❑ Other (describe)_____

About how many participants were there in total? _____

Please <u>estimate</u> the racial/ethnic composition of the program participants:

_____% American Indian or Alaska Native
_____% Asian
_____% Black or African American
_____% Hispanic or Latino
_____% Native Hawaiian or Other Pacific Islander
_____% White

Please <u>estimate</u> the gender composition of the program participants:

_____% Male
_____% Female
(%s must add up to 100)

Where was the program conducted? *(Select all that apply):*

❑ On-site; Describe: _____
❑ Off-site during a field trip
❑ Off-site at a camp location
❑ Off-site at a local community organization
❑ On the Internet (Web site?) _____
❑ Other (describe) _____

How often was the program offered? *(Check all that apply.)*

❑ Daily
❑ Weekly
❑ Biweekly
❑ Monthly
❑ Two to four times during the grant year
❑ Once during the grant year; Duration of program: _____ months
❑ Other (describe) _____

Did program staff receive any training prior to conducting the program?

❑ Yes ❑ No

How many staff helped to: ***(Please use whole numbers)***

Develop the program? _____
Prepare for the program? _____
Implement the program? _____

Which of the following were featured? *(Check all that apply):*

- ❑ Hands-on activities
- ❑ Group activities
- ❑ Handouts
- ❑ Multimedia
- ❑ Live specimens
- ❑ A guest speaker
- ❑ A field trip or project
- ❑ Exhibits
- ❑ Reference to *Journey to Planet Earth*
- ❑ Other (describe)_____

Please indicate which of the following happened during this program:

The participants:	**Yes**	**No**	**N/A**
Engaged in hands-on activities	❑	❑	❑
Interacted with each other	❑	❑	❑
Asked the presenter questions	❑	❑	❑
Asked the guest speaker questions	❑	❑	❑
Presented their work to others	❑	❑	❑

The presenter:	**Yes**	**No**	**N/A**
Involved the participants in the presentation	❑	❑	❑
Related the presentation to *Journey to Planet Earth*	❑	❑	❑
Provided information about the community	❑	❑	❑

The guest speaker:	**Yes**	**No**	**N/A**
Involved the participants in the presentation	❑	❑	❑
Related the presentation to *Journey to Planet Earth*	❑	❑	❑
Provided information about the community	❑	❑	❑

Did this program exist at your site prior to the AAAS/JPE grant?

- ❑ Yes, in the same format
- ❑ Yes, and it was enhanced as a result of the AAAS/JPE grant
- ❑ No, it was created as a result of the AAAS/JPE grant

Will your site continue to offer this program?

- ❑ Yes
- ❑ No
- ❑ Not sure

Additional comments, if any:

PROGRAM #2:
Same set of questions as Program 1

PROGRAM #3:
Same set of questions as Program 1

Which of the following did your site do as a part of the JPE/AAAS outreach? *(Check all that apply).*

- ❑ Collaborated with a local PBS station
- ❑ Held screenings of Journey to Planet Earth episodes
- ❑ Promoted the JPE series through print
- ❑ Promoted the JPE series online
- ❑ Promoted the JPE/AAAS outreach programs through print
- ❑ Promoted the JPE/AAAS outreach programs online

Thank you very much for taking the time to respond to this survey!
Your feedback is greatly appreciated.

OUTREACH EVALUATION INTERVIEW PROTOCOL

Screenscope outreach project- Protocol for staff phone interview

- Thank you for taking the time to share your experience with the programs developed using the *Screenscope* grant; we appreciate it a lot.
- Your feedback on these programs will benefit development of similar programs in the future.
- Please be aware that all your responses will be kept confidential and that you may choose to withdraw participation in this interview at any time.
- Do you have any questions before we begin?

1. **What programs did your center develop using the *Screenscope* grant?**
   a. Who developed them?
   b. Who prepared for them?
   c. Who implemented them?
   d. Can you describe a typical activity in the program?

2. **Can you describe the participation in the programs?**
   a. Who was the target group?
   b. Who were the participants?
   c. How did they participate?

3. **How did the programs and activities relate to the PBS show *Journey to Planet Earth*?**
   a. How did the programs promote the TV series?
   b. To what extent was the content of the programs linked to the TV show?
   c. How (if at all) did you celebrate Earth Day at your center?

4. **What were the goals and objectives of the programs that were developed?**
    a. For the center?
    b. For the community?
    c. Any others?
    d. To what extent have they been met?
    e. How did you assess if these goals had been met?

5. **Which activities had the most participation?**
    a. What were the reasons for their high participation?
    b. How did you assess this?

6. **Can you please describe any feedback that you received about the programs developed?**
    a. From participants?
    b. From staff?
    c. From others?

7. **What are the center's future plans with the programs that were developed?**
    a. Will they be continued? Why?
    b. Will they be modified? Why? How?
    c. How much do the programs rely on the *Screenscope* grant?

8. **Is there anything else you'd like to share about these programs?**

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