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INTRODUCTION

In an effort to better understand how Providence residents perceive nature, how residents and children use the nature and parks spaces in the City, and any barriers to accessing nature spaces for children, the Healthy Communities Office and its community partners collected data from multiple sources with help and facilitation by Fio Partners. Data collection included a lesson collecting pictures from elementary school children, focus groups, and surveys. An analysis of those efforts follows.

Some of the main concerns voiced by children, youth and their parents were regarding cleanliness of outdoor spaces, particularly litter and trash in the parks. There seems to be a correlation between feelings of being welcome and safe in these spaces and their condition.

There is little interest in structured activities as a way to entice residents out into nature. The message from these respondents has been more a desire for a safe and clean space that they can use to enjoy social time, casual sports and passive recreation.
YOUTH FOCUS GROUPS

Youth in Action took the lead on a series of focus groups with youth from organizations across the City. There were seven focus groups in total with high school aged youth from diverse Providence neighborhoods and backgrounds. The organizations included were as follows:

- Youth in Action
- City Arts
- PRYSM
- South Side Community Land Trust
- New Urban Arts
- Providence Student Union
- Young Voices

Main themes from the focus groups are included in the tables below:

<table>
<thead>
<tr>
<th>Question</th>
<th>High</th>
<th>Mid</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is nature?</td>
<td>Plants, trees, green life</td>
<td>Animals, life, outdoors, family</td>
<td>Parks, beaches</td>
</tr>
<tr>
<td>Does PVD have nature?</td>
<td>Few, they're hard to access</td>
<td>Nature is outside PVD, trash/litter</td>
<td>A lot of nature in PVD</td>
</tr>
<tr>
<td>Where do you access nature in PVD?</td>
<td>Neighborhood park</td>
<td>RWP, India Point, Neut</td>
<td>Blackstone, beach, out of state</td>
</tr>
<tr>
<td>What do you do there?</td>
<td>Sit, relax, look, soak it in</td>
<td>Walk, hike, bike, socialize w/family and friends</td>
<td>Sports</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Why do you go?</td>
<td>Sit, relax, hike/walk, sports, socialize</td>
</tr>
<tr>
<td>How do you get there?</td>
<td>Walk, bike, bus, get a ride</td>
</tr>
<tr>
<td>What improvements can be made?</td>
<td>Remove trash/make it cleaner; Beautification – more plants/trees; Not safe at night/needs lighting; More community to make it feel safe; Stop smoking</td>
</tr>
<tr>
<td>What would make you want to be more involved?</td>
<td>More activities, programming, community involvement; Food, festivals; More sports, better equipment/courts to play; Less garbage/litter; More shade spaces</td>
</tr>
</tbody>
</table>

One observation that emerged from the focus group conversations was a correlation between the youth’s feelings of safety and the presence of litter or trash in the parks. They made clear that they didn’t want to see more bathroom facilities, because that’s where the dangerous stuff happens, and that programming in the form of festivals would be a welcome addition. Food is also a big draw for these youth, and likely for other similarly aged youth across the city as well.
A meeting was held with Friends of Parks groups from Blackstone Park and Neutaconkanut Park to discuss and share successes and challenges of those groups with their communities. Major themes from that discussion included Friends of Parks groups need for succession planning, challenges around changing neighborhood demographics including language barriers, and opportunities for joint programming between parks and other stakeholders. Major themes are highlighted in the table below:

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Opportunities</th>
<th>Lessons learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stewardship</td>
<td>Partnership between parks for programming, support and sharing ideas with each other</td>
<td>Community listening rather than corrective action to address play needs of local children</td>
</tr>
<tr>
<td>Succession of Friends Groups leaders – how do we engage a next generation of park stewards?</td>
<td>Additional community partnerships to leverage resources</td>
<td>Using students to do outreach has been seen as less threatening to local families</td>
</tr>
<tr>
<td>Community Relations – connecting with the changing demographics</td>
<td>Build on existing programming in partnership with City, Providence public schools and universities, libraries</td>
<td>Dynamic programming – responsive to community needs as they arise</td>
</tr>
<tr>
<td>Parents afraid/hesitant around dirt</td>
<td>Use partnerships with universities to build on periphery of Blackstone</td>
<td></td>
</tr>
<tr>
<td>Getting/keeping Volunteer Base</td>
<td>Creation of a youth friends of parks group</td>
<td></td>
</tr>
</tbody>
</table>

One additional individual interview took place, which mirrored the themes presented above. Challenges for the Elmwood neighborhood include engaging residents to foster feelings of stewardship over their neighborhood space, dealing with resident feelings of fear and hesitation regarding gardening and growing food, and bridging gaps in culture and language. Some creative ways these challenges have been addressed are through engaging the local library, utilizing garden space for unrelated activities in the neighborhood to increase exposure to the garden space, and strong networking between neighborhood players.
PICTURE ANALYSIS

Providence public schools were engaged in a lesson that asked children in grades 3-5 to tell us about their views on nature through drawings. The lesson asked children to draw two pictures and to label them and answer questions about their content. There were a total of 319 pictures used for analysis.

Picture 1
The first task asked children to draw a picture of what a person who spends time in nature looks like. They explained who their person or people are, what they are doing, how they got there and to tell is whether or not they are safe. A word bubble follows that captures some themes in individual words and they’re usage frequency. The larger the word, the more frequently it was used by the children for this assignment:
In many pictures, children drew themselves with their families. The most common place was in a park, and the most common activity was playing, particularly an organized sport like basketball or soccer.

Almost 1/3 of pictures had an inquiry theme. From investigating insects in the backyard to scientists near active volcanoes, the words used in these pictures were: discover, investigate, look, explore, observe, study and watch. A sample of statements is below:

| They are walking and exploring in the woods. |
| A scuba diver is exploring deep underwater. |
| They are observing life in Narragansett Bay and are experimenting and catching fish. |
| An archeologist is studying dinosaur bones in a restricted area. |
| I am walking to the woods because I want to explore nature and learn about it because it is fascinating and beautiful. |
| ...she is looking at diamond and crystal with a magnifying glass. |

While many children drew pictures close to home, there were just over 15% that were either far off in location or imagined and fantastical. These pictures ranged from investigating active volcanoes, jungle exploration to dimension warping.

The vast majority of pictures indicated the subject in their picture was safe. Most explained the safety of their picture subjects was due to being watched, usually by a parent. One recurring theme through the pictures was the image of children playing in their backyards with their Mom watching them from the window. Just about 15% of children reported that their picture subjects were unsafe. There was no correlation between safety and proximity to home. In other words, the jungle explorer was no more likely to be unsafe than the child at the neighborhood park.
The second part of the assignment asked the children to draw a picture of what it looks like when they spend time outside with their families. Again, the most common picture location was a park, closely followed by the back yard. Also similar to the first picture, the most common activity was playing, with soccer being the most named sport of the bunch.

There was a frequency question, asking children how often they engaged in the activity they drew with their families. There was a range of answers to this question that often had to do with the proximity of the activity itself. For example, those children who drew picture of past vacations also indicated infrequency of the activity while those who drew scenes of playing with siblings in the backyard were more likely to indicate a high frequency of that event.

A follow up to the frequency question asked children if they would like to do the activities they drew with their families more often. There were almost unanimous affirmative answers, and a sample of the reasons given is below:

<table>
<thead>
<tr>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>I wish I could do these things more because I want to spend more time with family and spend quality time with them.</td>
</tr>
<tr>
<td>I wish we could play everyday.</td>
</tr>
<tr>
<td>I wish I could do this more because spending quality time with family is important.</td>
</tr>
<tr>
<td>Yes, I wish we can do these things more because then that means I get to spend more time with my family.</td>
</tr>
<tr>
<td>I do wish I could do that more often so I can spend more time with my family.</td>
</tr>
</tbody>
</table>

The wishes of these children were not centered on an activity or place, but rather expressing a desire to have more time with their families. Whether backyard, beach, park or Grandpa’s house did not affect the answer to this question.
There was also a question asking them what nature looks like in Providence. There was a wide range of responses to this question. A representative sample is in the table below:

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature in the city looks nice and pretty outside with birds singing and fresh hot air with nice smelling flowers</td>
<td>In the city it does not look like nature because I see people throwing trash in the sidewalk and in other peoples houses.</td>
</tr>
<tr>
<td>Nature is beautiful in our city, nature is all around us.</td>
<td>It is too crowded, there is no woods.</td>
</tr>
<tr>
<td>Nature looks beautiful in the city – birds, trees, plants and saplings. It is beautiful.</td>
<td>Trees, grass and dirt, but there is probably litter on it.</td>
</tr>
<tr>
<td>Nature in the city looks like a beautiful pot of gold that is being transferred to a beautiful soil that mixes together to make the city rich.</td>
<td>Nature is covered by sidewalks, roads and buildings, so there’s not so much nature and animals besides birds and insects.</td>
</tr>
<tr>
<td>Beautiful and peaceful but sometimes rough.</td>
<td>There are buildings, people, cars and stores.</td>
</tr>
<tr>
<td>Nature in the city is beautiful with animals and has lots of trees.</td>
<td>It is very bare, all you hear are cars beeping and it’s really loud.</td>
</tr>
<tr>
<td>Nature looks like animals in the sky and land and they are in freedom.</td>
<td>It can be dirty or have graffiti all over it.</td>
</tr>
</tbody>
</table>
A word cloud of the second pictures answers is below:
Two surveys were collected over the course of this assessment. One was distributed to the youth who applied to the Environmental Justice League of Rhode Island’s application for summer programming. Additionally, a paper survey was distributed to parents of children attending summer camp at the Providence Recreation Center sites and the Greater Providence YMCA sites.

**Parent Survey**

There were 85 surveys collected from parents whose children attended summer camp at the Providence Recreation Centers and/or the Providence YMCA day camps.

The first two questions asked questions about perception of nature. Respondents consider any area where there are plants or animals/insects to be nature. This includes gardens and yards. These areas are the first to come to mind when thinking of nature, more than parks, wilderness areas or areas without manmade structures such as beaches, forests or mountains.

![Bar chart showing responses to the question: When you think of nature, what do you include? (Check all that apply)](chart.png)
Despite this perception of nature by respondents, less than a quarter have the opinion that Providence has many nature spaces. The largest group of respondents thinks Providence has some nature spaces and 25% believe there are few. The smallest group, 7%, believes there is no nature in Providence.
The next group of questions asked about access to nature. When asked how often their children go out into nature, the largest group of responses indicated it was several times a week or every day.

Roger Williams Park is the most accessed park by this group, followed by India Point Park, a small neighborhood park, and accessing nature outside of Providence. The parks used the least by this group were Blackstone Park/Boulevard and Neutaconkanut Park, both with only 16% of respondents reporting use of those areas.
The majority of respondents indicate they live within a ten minute walk of 2 or 3 city parks, and over half report always feeling safe in those spaces. Just over 25% indicate they feel safe in their neighborhood park sometimes, and about 9% say it depends on the time of day.

**How many parks do you live close to (within a 10 minute walk)?**

- 4 or more: 11.0%
- 3: 29.3%
- 2: 24.4%
- 1: 32.9%
- I don't live near any parks: 2.4%

**Is it safe to go to your neighborhood park?**

- Yes, I always feel safe there: 54.3%
- I sometimes feel safe there: 25.9%
- I rarely feel safe there: 4.9%
- I never feel safe in my neighborhood park: 3.7%
- It depends on the time of day: 8.6%
To gauge barriers for families getting children out into nature, we asked them questions about concerns they have. When asked to identify concerns regarding children accessing nature, the top concerns were safety in getting to nature spaces, and litter. Just under 40% of respondents indicated that they did not have concerns about their children going into nature. About 15% answered that parks and nature spaces don’t feel safe for their children.

![Bar chart showing concerns about children going out into nature.](chart.png)

![Pie chart showing the most concerns about children going out into nature.](pie.png)
When asked if they feel welcome in nature spaces in Providence, 63% said they always feel welcome. Just under one third replied they sort of or sometimes feel welcome. When asked what would make them want to spend more time in nature in Providence more, the top response category was if nature areas were cleaner. The next most common response was if nature areas were safer, followed by if there was better equipment. Structured programming and if nature areas were easier to get to were the most infrequently checked categories.
Environmental Justice League of Rhode Island Youth Survey
Along with their application for summer programming, the EJLRI attached a survey for youth to fill out. There were 15 responses.

This group was asked how often they go out into nature and where. Over 70% of these youth indicated they never go to Roger Williams Park or Blackstone Park. There were 60% who do not ever go to Neutaconkanut Park. Their neighborhood park, India Point park and outside of Providence were the most frequently visited places for this group.
We asked this group if Providence has many nature spaces. Only one person said yes, and likewise, only one person said no. The majority of responses indicated that the perception is that Providence has some, but not a lot of nature areas.

**Does Providence have many nature spaces?**

- Yes, 6.7%
- Some, but not a lot, 73.3%
- Few, 13.3%
- No, 6.7%

A majority of respondents said they live near 2 parks, with 13% indicating they are within walking distance to only one or no parks.

**How many parks do you live near?**

- 2, 53.3%
- 3, 20.0%
- 1, 13.3%
- None, 13.3%
- 4 or more
This group either drives or walks to get to nature spaces. When visiting nature spaces, the respondents indicate that they walk, relax or soak it in, or socialize. Only two respondents said they engage in sports or bike riding while in nature spaces.
The next group of questions asked about feelings of safety and being welcome. One fifth of respondents said they always feel safe going to the nature spaces in Providence. Almost half report usually feeling safe, and one third said they sometimes feel safe. When asked about feeling welcome, 20% indicate always feeling welcome, and almost 75% report feeling sort of welcome, or welcome some of the time. Only one respondent indicated never feeling welcome in nature spaces in Providence.

**Is it safe to go to the nature spaces in Providence?**

- Yes, I always feel safe: 20.0%
- I usually feel safe but not always: 33.3%
- I sometimes feel safe: 46.7%
- I usually don't feel safe: 6.7%
- No, I never feel safe: 20.0%

**Do you feel welcome in the nature spaces in Providence?**

- Yes: 73.3%
- Sort of/sometimes: 20.0%
- Not really: 6.7%
We asked a question about what would make these youth want to access nature more. Similar to the parent survey, the top response was if the nature areas were cleaner. The next most frequent answer was if nature areas were easier to get to, followed by if there was better equipment. Safety was the next concern with 43% of respondents indicating they would want to spend more time in Providence nature areas if they were safer. The least frequent response was if there was more structured programming, with just over 35% of responses.
The Groundwork Providence Summer Green Team engaged in some observation activities in Providence Parks. They visited India Point Park once and Roger Williams Park twice.

The Green Team went to India Point Park on Thursday July 21 one hour between 11 and 12. The Green Team split up into teams and just counted the number of people they saw in the park and what they were doing. During that hour the green team only observed 3 children in the park and they were utilizing the playground. The others were adults doing a variety of activities - watching the boats, sunbathing and exercising.

The next observations were made at Roger Williams Park in the casino area on Thursday July 28th at 1 in the afternoon. The team observed 26 people walking around the park. One observer noted 2 people sitting and watching the water. Two team members saw 2 kids playing in the playground and one saw a child playing with a stick. Two team members went towards the carousel and saw 14 children enjoying the carousel while 5 adults lay in the grass. In total 33 adults and one child were observed interacting with nature.

There was one more observation of Roger Williams Park on Thursday August 4th at 1pm. During this time the Green Team also observed park conditions. While observing people in Roger Williams Park the Green Team saw 122 individuals. There were a total of 67 combined individuals playing PokemonGO, 10 skateboarding, 9 bike-riding, 8 boating, 25 walking, and one riding a scooter. Of the 122 combined individuals 56 were either children or young adults, and 65 individuals were adults. Of the 122 people observed, 35 were actively interacting with nature by either riding in the swan boats, walking or swimming.

The Green Team also took note of the conditions of the park. They evaluated the park for litter, graffiti, special layout, and potential hazards. Overall Roger Williams Park is kept in good condition. The Green Team did not find any potential hazards and found very little graffiti in the park. A few Green Team observers did note that there was some litter in the park and in the pond but it was not significant. Additionally, the Green Team members reported that the park had plenty of open space and shade in the park and near the playgrounds.
A wide variety of Providence children, youth and parents were consulted for this data collection effort. There was not agreement regarding all of the perceptions, but there were themes that emerged from the voices of the respondents. One of the barriers identified in this effort was the presence of litter in the nature spaces and parks in Providence. There seems to be a correlation between cleanliness of nature spaces and how welcome and safe people feel in those spaces. There was a sentiment expressed by the friends of parks groups indicating that encouraging stewardship of parks was a challenge for their neighborhoods. While cleaning up the nature spaces and providing better equipment are both seen as efforts that would reduce the barrier to spending time in nature, structured programming was not.

This feedback indicates that it may be worthwhile to combine work to reduce litter and increase stewardship of Providence nature spaces. Investing in a youth friends of parks group, and youth leadership initiatives may be a way to pool these efforts and groom the next generation of park and nature stewards in the City.

Efforts to expand programming that already exists to include ways to get children into Providence nature spaces is also a way in which existing efforts can be built on rather than starting from scratch with new outdoor programming. This is already happening with outdoor classrooms at the K-5 level, and library programming in some Providence library locations. There are more such opportunities for expanding programs to increase children’s exposure to the outdoors, and it the recommendation of this report to map these and build on them using the second year of funding from the CCCN and other available grant monies.
APPENDICES

Appendix 1 – Parent Survey

Cities Connecting Children to Nature

The Healthy Communities Office of the City of Providence has received a grant with the goal of increasing access to nature for Providence children. As a part of the first year of this grant, we are seeking your input to help us better understand how nature in Providence is perceived, and what barriers to access exist for Providence families. Please help us by completing this brief survey, which will help direct future efforts and funding.

1. When you think of nature, what do you include? (Check all that apply)
   - [ ] Wilderness areas where there are no people living
   - [ ] City parks
   - [ ] Areas where you are surrounded by the world rather than buildings: beaches, forests, mountains
   - [ ] Any area where there are living plants, animals and/or insects such as a yard or garden

2. Of those nature places, which do you think of first? (Check only one)
   - [ ] Wilderness areas where there are no people living
   - [ ] City parks
   - [ ] Areas where you are surrounded by the world rather than buildings: beaches, forests, mountains
   - [ ] Any area where there are living plants, animals and/or insects such as a yard or garden

3. Does Providence have many nature spaces?
   - [ ] Providence has many nature spaces
   - [ ] Providence has some nature spaces
   - [ ] Providence has few nature spaces
   - [ ] There is no nature in Providence

4. How often do your children go out into nature?
   - [ ] Several times a week or everyday
   - [ ] About once a week
   - [ ] Once or twice a month
   - [ ] Less than once a month
5. Where do you go to access nature in Providence? (Check all that apply)

☐ Roger Williams Park
☐ Neutaconkanut Park
☐ Blackstone Park/Boulevard
☐ India Point Park
☐ I go to my neighborhood park
☐ I leave Providence to access nature

Other (please tell us)

6. How many parks do you live close to (within a 10 minute walk)?

☐ 4 or more
☐ 3
☐ 2
☐ 1
☐ I don't live near any parks

7. Is it safe to go to your neighborhood park?

☐ Yes, I always feel safe there
☐ I sometimes feel safe there
☐ I rarely feel safe there
☐ I never feel safe in my neighborhood park
☐ It depends on the time of day
☐ Other (please specify)

[Please specify]
8. Which concerns do you have about your children going out into nature? (Check all that apply)

☐ It is not safe for my children to walk to parks/nature spaces alone

☐ The parks and nature spaces in Providence don’t feel safe for my children

☐ My children don’t have the clothing needed to play in nature (winter coats, shoes or clothes they can get dirty, etc)

☐ There is litter in the parks and nature spaces in Providence

☐ I am not concerned about my children going out into nature

☐ Other (please tell us)


9. Of the concerns you listed above, which is the MOST concerning? (Check only one)

☐ It is not safe for my children to walk to parks/nature spaces alone

☐ The parks and nature spaces don’t feel safe for my children

☐ My children don’t have the clothing needed to play in nature (winter coats, shoes, clothes they can get dirty, etc)

☐ There is litter in the parks and nature spaces in Providence

☐ I don’t have any concerns about sending my children out in nature

☐ Other (please tell us)


10. Do you feel welcome in the nature spaces in Providence?

☐ Yes, always

☐ Sort of/sometimes

☐ Not really/rarely

☐ No, never


11. What would make you want to go out into nature in Providence more? (Check all that apply)

☐ If nature areas were cleaner

☐ If nature areas were safer

☐ If nature areas were easier to get to

☐ If there was better equipment (benches, tables, etc)

☐ If there was more to do, ex. structured programming

☐ Other (please tell us)
Appendix 2 – EJLRI Survey

EJ League Application Survey

1. How often do you go out into nature, and where?

<table>
<thead>
<tr>
<th>Location</th>
<th>More than once a week</th>
<th>Once every one or two weeks</th>
<th>Less than two times per month</th>
<th>Never</th>
<th>In warm months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackstone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roger Williams</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutaconkanut</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India Point</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My local Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside Providence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. If you access nature in a different location, please tell us where.


3. Does Providence have many nature spaces?
   - Yes
   - Some, but not a lot
   - Not very many
   - No

4. How many parks do you live near?
   - 4 or more
   - 3
   - 2
   - 1
   - None
5. When you go to nature spaces, how do you get there?
☐ Drive
☐ Walk
☐ Bike
☐ Ride the bus

6. What do you do when you spend time in nature?
☐ Walk/hike
☐ Ride a bike
☐ Skateboard
☐ Sports
☐ Socialize with family or friends
☐ Relax, sit, watch the activity
☐ Other (please specify)

7. Is it safe to go to the nature spaces in Providence?
☐ Yes, I always feel safe
☐ I usually feel safe but not always
☐ I sometimes feel safe
☐ I usually don't feel safe
☐ No, I never feel safe

8. Do you feel welcome in the nature space in Providence?
☐ Yes
☐ Sort of/sometimes
☐ not really
☐ Not at all
9. What would make you want to go out into nature in Providence more?

☐ If nature areas were cleaner
☐ If nature areas were safer
☐ If nature areas were easier to get to
☐ If there was better equipment (courts, benches, tables, etc)
☐ If there was more to do (activities, programming)

Other (please specify)
## Appendix 3 – PPSD Lesson

### BACKMAPPING UNIT WORKSHEET

**Content:** Science  
**Time line:** Spring 2016

**SCIENCE NOTEBOOK COMPONENT FOCUS:** Trigger prior knowledge draws interpretation, answer questions, and include extended research

### NGSS Examples of possible alignment from K-5

| NGSS Examples | 4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival. (Clarifying statement: could include heart, stomach, lung, brain, skin. (Assessment boundary: limited to macroscopic structures.  

| 5-ESS3-1: obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment. (no clarifying statement or boundary assessment)  

| MS-PS3-5: construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object. (Clarifying statement: empirical (that which can be observed) used in arguments could include an inventory or other representation of energy before and after the transfer in the form of temperature changes or motion of object)  

| HS-LS2-1: Use Mathematical and or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales. (Clarify statement: emphasis is on quantitative analysis and comparison of the relationships among interdependent factors including boundaries, resources, climate and competition. Examples of mathematical comparisons could include graphs, charts, histograms, and population changes gathered from simulations or historical data sets. (Assessment boundary: does not include deriving mathematical equations to make comparisons.)

### Engage:

**These activities capture the students attention, connect their thinking to the situation, and help them access current knowledge.**

**Ask students what they know about people that spend time outside.**  
**KWL E (E is for evidence)**

### Explore:

**Students investigate initial ideas and solutions in meaningful context.**

**Draw your interpretation of a person that spends time outside.**
### Explain:
Based on an analysis of the exploration, students develop and explanation for the concept and practices. Their understanding is clarified and modified through the teacher’s descriptions and definitions.

Students can make graphic organizers to organize their thoughts, and then move into writing. Ex: Claim and evidence T chart converted into argument, persuasive writing. Use Step Up to Writing, FIRE, ICE, OREO, etc. Anchor # 8 (see below) also, use 4 steps to analyze an argument.

**Anticipated time:**

### Elaborate:
Students have opportunity to expand and apply their understanding of the concepts within new context and situations. Connection to real world.

**Anticipated time:**

### Evaluate:
Students may use the information they have gathered from their science notebooks, graphic organizers, models etc.

USE A VARIETY OF QUESTIONING STRATEGIES: WRITTEN RESPONSE, MULTIPLE CHOICE, SHORT ANSWER, ESSAY, VOCABULARY.

ASK, WHAT IS THE D.O.K. OF THE QUESTION?

**Please submit your interpretations to Donna J. Casanova.**

**Notes:**

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**Anticipated time spent:**

**Answer the following questions to better define your experiences?**

**Ask your family the same questions, and draw an updated picture.**

**Notes:**