**Sustainable Jersey for Schools**

**Education for Sustainability Questionnaire**

Answer these questions about the **significant lesson** or **set of lessons** that you are submitting for points under the Education for Sustainbility (EfS) action.

**1.** The lesson(s) must have addressed at least **one** of the **sustainability topics** listed below. *Examples provided under the sustainability topics are meant to be illustrative and not a comprehensive list of subtopics.* Check off the sustainability topic(s) addressed by the lessons, and for which there are documented results:

\_X\_\_ **Ecological Systems**

Investigating natural environmental processes and systems – Learning about the physical and living systems of our planet brings understanding about the interconnectedness and natural limits of these systems and informs solutions to environmental problems. Students can investigate ecological systems at a local level – e.g. biodiversity in the school grounds – or link to studies occuring further away.

\_\_\_\_ **Climate Change**

Acquiring climate literacy – Learning climate science to understand the causes and consequences of global climate change; studying the impact of human activity on the climate and adaptations of man-made and natural systems in the face of climate change. Students can take action to address climate change by reducing their "carbon footprints."

\_\_\_\_ **Waste**

Reducing, reusing, recycling.and cradle-to-cradle design – Re-thinking consumption and product design and use to eliminate the very idea of “waste.” Any school or community can reduce its environmental impact by analyzing the full life cycle of the products it uses, and acting to reduce packaging and transport distance, and to recycle or re-purpose as many items as possible.

\_\_\_\_ **Energy**

Addressing sustainable energy supply and use – Learning about the multiple factors that play a role in energy demand, supply and use and the impacts on ecosystems and socio-economic systems. In some municipalities, schools are the largest energy consumers, but up to 30 percent of that energy may be used inefficiently.

\_\_\_\_ **Health and Wellness**

Addressing issues that impact human health – Eliminating toxic and hazardous materials, while maximizing elements that promote health (e.g. providing clean air and good ventilation, providing clean water, promoting outdoor time and physical activity) will improve the home, work and school environment for everyone.

\_\_X\_ **Food Systems**

Improving nutrition and food sustainability – Many of the systems for producing, processing, and delivering the food we eat rely on practices that have deleterious effects on the environment, on livestock, on farm workers and on consumers. Choosing local and whole foods impact both human health and the environment.

\_\_\_\_ **The Built Environment**

Addressing transportation, housing, and other infrastucture development – Raise awareness of sustainable solutions such as transportation and development plans that reduce fuel consumption, pollution and car use.

\_\_X\_ **Water**

Addressing water quality, availability, and use – Learning about the water cycle and how use of water and land development in one place impacts water quality and availability in other places.

\_X\_\_**Economic Systems**

Investigating how economic systems play a role in sustainability – History has seen the collapse of many civilizations whose economic activity degraded the natural and/or social environments. Sustainable economies support a good quality of life for all and maintain healthy ecosystems.

\_\_\_\_**Social and Cultural Systems**

Investigating the impact of social and cultural systems on sustainability – Social and cultural norms influence how different groups interact with each other and with the environment; and these practices are themselves influenced by changes in natural environments .

**2.** The lesson(s) must have taught about and assessed for at least **one** of the [**enduring understandings** of education for sustainability](http://cloudinstitute.org/storage/downloads/Cloud%20Institute%20EfS%20Standards%20%20Performance%20Indicators%202012%20CE.pdf)listed below. Check off the enduring understanding(s) that the lesson(s) addressed, and for which there are documented results:

\_X\_\_ **A Healthy and Sustainable Future Is Possible**

We can learn how to live well within the means of nature. This viewpoint inspires and motivates people to act.

\_X\_\_ **We Are All In This Together**

We are interdependent on each other and on the natural systems.

\_\_\_\_ **Healthy Systems Have Limits**

Rather than exceeding or ignoring the limits, tap the power of limits. Constraints drive creativity.

\_\_\_\_ **Reconcile Individual Rights with Collective Responsibilities**

Responsible and ethical participation and leadership are required in order to make the changes we need to make.

We must reconcile the conflicts that exist between our individual rights and our responsibilities as citizens.

\_\_\_\_ **Diversity Makes Our Lives Possible**

Diversity is required to support rich complex systems (like us), to build strength and to develop resilience in living

systems. Biological diversity, cultural, gender, political and intergenerational diversity all serve this purpose.

\_\_\_\_ **Create Change at The Source Not the Symptom**

Distinguish problems from symptoms. Identify the most upstream problem you can address within your sphere of influence.

\_\_\_\_ **Think Far into the Future (1,000 Years)**

Envision the kind of future we want and start working towards it. We should not sacrifice our children’s future

to meet our needs.

\_\_X\_\_ **Read the Feedback**

We need to pay attention to the results of our behavior on the systems upon which we depend. If we keep our eyes on the feedback, we can adjust our thinking and behavior before we cross detrimental thresholds.

\_\_\_\_ **It All Begins With a Change In Thinking**

Thinking drives behavior and behavior causes results. As Einstein had observed, the significant problems we face cannot be solved with the same level of thinking we used to create them. Think systems, cycles and out of the box.

\_\_\_\_ **Live By The Natural Laws**

We must operate within the natural laws and principles rather than attempt to overcome them. It is nonnegotiable.

\_\_\_\_ **We Are All Responsible**

Everything we do and everything we don’t do make a difference.

**3.** Teachers must have used at least **one** of the following **instructional** **approaches** in conducting the EfS lesson(s). Check off those that apply.

\_\_X\_ I**nquiry based**

Students ask questions, plan and carry out investigations, analyze and interpret data, construct explanations and engage in argument based on evidence.

\_\_\_\_ **Experiential**

Students learn through doing – participating in projects, events, challenges, experiments and other learning activities.

\_X\_\_ **Place-based student learning**

Students participate in investigations and learning activities in school grounds, neighborhoods or natural areas that engage them with real-life scenarios that are tangible, observable and meaningful to them.

\_\_\_\_**Interdisciplinary**

2 or more teachers covering different academic disciplines design and/or present related lessons that integrate subject matter from 2 or more academic disciplines (e.g. social studies and science). Indicate New Jersey educational standards met for each discipline in the response to Question 4.

**4.** Describe the **learning objectives** of the sustainability lessons. Also describe how student learning was **assessed.** These descriptions should indicate the **enduring understanding(s)** of sustainability that were imparted by the lessons, as well as the instructional **approaches** that were used (as checked off above). If the approach was **Interdisciplinary**, please indicate the New Jersey curriculum standards for each discipline that were covered by the lessons:

Welcome to Mr. B's Backyard Classroom Field Guide. Each student selected a topic to research and publish onto this Wiki.The general information describes the local ecosystems that include the Pinelands, vernal ponds, watersheds and how these ponds are a part of the Mullica River Watershed. All other students selected an organisim. These organisims may be found in Mr. B"s Backyard Classroom or the surrounding areas; year round or in certain seasons. Since this is only our fourth year exploring the area, we are still not sure of all of the species that may be found for sure in Mr. B's Backyard Classroom, but all of the species selected are native to South Jersey or visit our area.\*

Visit: http://mrbsbackyardclassroomfieldguide2015.wikispaces.com/

To view our students individual wiki pages

Also our School Science Blog: http://mrbsbackyardclassroom.weebly.com/blog

Our second Technology based lesson involves the creation of QR codes that visitors are able to use while int he outside classroom to learn about the wildlife. With the use of a smartphone or an iPad, you can download a QR App that will allow you to scan the QR codes located throughout the pond. Our science teacher collaborated with our technology teacher to develop these codes, and the students provided the details to create the brochure. If someone does not have a smart phone there is a brochure that has been created for those individuals.

**5.** **Optional:** Please share any comments or lessons learned.

Note: As part of the submission requirement you are asked to submit as separate document uploads (see application portal), copies of graded rubrics and/or student work samples as assessments of student learning that meet/exceeded expectations, and copies of lesson plans. Additional documentation of the lessons such as photographs and news articles may also be submitted.