Sustainable Jersey for Schools

Education for Sustainability LESSON Questionnaire

Answer these 5 questions about the **significant lesson** or **set of lessons** that you are submitting for points under the Education for Sustainbility (EfS) action. **Be sure to fully answer Question 5** if the lesson was delivered remotely and is to be considered for Digital Schools Star recognition.

1

The lesson(s) must have addressed at least **one** of the **sustainability topics** listed below. Check off the sustainability topic(s) addressed by the lessons, and for which there are documented results:

____ Ecological Systems

Investigating natural environmental processes and systems – Students can investigate ecological systems at a local level – e.g. biodiversity in the school grounds – or link to studies occuring further away.

_x___ 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 – Re-thinking consumption and product design 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 school, work, and home environment for everyone.

____ 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 food-sector 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.

____ 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.

____Economic Systems

Investigating how economic systems play a role in sustainability – History recounts the collapse of 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 shape the interaction of different groups 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 listed below. Check off the enduring understanding(s) that the lesson(s) addressed, and for which there are documented results:

____ 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.

__x__ Recognize and Protect The Commons

The Commons are the creations of nature and society that we inherit jointly and freely, and hold in trust for future generations. We all depend on them and we are all responsible for them.

____ 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 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.

____ 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.

_x___ 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__ Inquiry 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.

____ 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.

__x__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).

4

Explain how the uploaded student work is evidence of the **enduring understanding(s)** of sustainability that was (were) checked off in Question 2.

Students watched videos, participated in a class discussion, took a carbon footprint quiz, plotted class scores, analyzed data, then came up with a plan to improve their own score. The students researched, collaborated, and discussed actions that they can take to make a difference in their own lifestyles that will directly affect others around them. Students took ownership for some of the unhealthy habits they exhibit and pledge a realistic goal (start small and build upon it) to make a change. Students research, created a slide presentation, and a video to share their goal and plan to achieve it.

Students were able to recognize how making changes in their own life can directly affect the people around them. By analyzing the class data, students were able to identify how their lifestyle compared to others and worked together to set a goal to make a change. We will revisit this quiz as a class in a few months to show how we made a difference. Students were given the opportunity to discuss the information in breakout rooms then come back into a whole group and share their ideas.

5 Was any part of the lesson delivered remotely? __x_YES ___NO

If you answered "YES" and you want to apply this lesson towards **Digital Schools Star recognition**, then answer the questions below to describe how your in-person lesson was adapted to be most effective for a remote digital or hybrid learning environment.

a. Describe the timing and sequence of the synchronous and asynchronous elements of the lesson, and how they are coordinated. (For example: Did students have opportunities to review learning materials – such as videos, documents, webpages – on-demand on their own time to enhance live class discussions?)

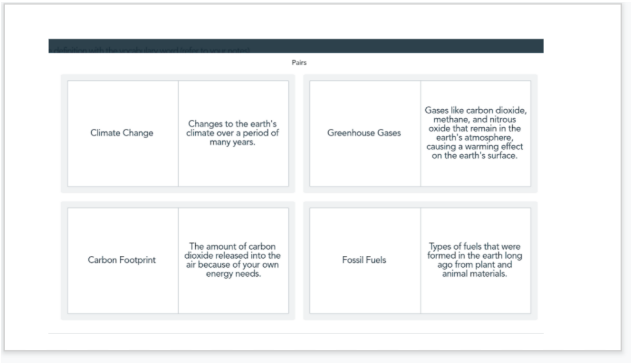
*Lesson was presented through nearpod (prior to the lesson, the slide presentation was posted in google classroom under the topic - Carbon Footprint.) The slides contained links to videos and class discussion topics. At the start of the lesson, all students signed into nearpod - students were given the link or a code if needed (posted in google classroom but also sent in the chat feature of zoom). As a class we reviewed the goals for the lesson and discussed what we already knew about the vocabulary that will be covered (climate change, carbon footprint, global warming, fossil fuels) and allowed time for questions. After discussing what a carbon footprint is, students were giving the link for the quiz Carbon footprint quiz (for kids) (in the chat and also posted in google classroom).

b. Describe the interactive elements to engage students in the lesson and to give them the opportunity to demonstrate their learning. (For example: Did students have break out rooms for peer to peer discussions? Were chats enabled? Were digital whiteboards shared or other collaborative spaces used?)

*After the students finished the quiz and read over the suggestions, they plotted their scores on Jamboard. Students were given the opportunity to discuss what they noticed about the scores - then students broke up into breakout rooms and created a line plot of the class data (title, label, scores on horizontal axis, and key). Students made observations - what is the lowest score, highest score, most common score, then came back into a group to discuss.

* Students then went back into the nearpod to discuss the observations they found. On a collaboration board in Nearpod - students posted everyday actions that affect their carbon footprint. After discussing these actions, students posted an action they can take to reduce their carbon footprint score on a collaboration board.

*Students then worked with a partner to match the vocabulary words with definitions on nearpod.



c. Describe the methods and tools used to assess student performance.

Education for Sustainable Lesson - **Climate Change**

	4	3	2	1
Quiz/ Line Plot	Student took the **carbon footprint Quiz**, recorded data, **created a line plot** (including a title, label, and scale on the horizontal axis),**analyzed data**, and **made 2 observations** about the class data.	Student took the carbon footprint Quiz, recorded data, created a line plot (including a title, label, and scale on the horizontal axis), and made 1 observations about the class data.	Student took the carbon footprint Quiz, recorded data, created a line plot (including a title, label, and scale on the horizontal axis).	Student took the carbon footprint Quiz.
Slide Presentation/ Flipgrid video	Student created a slide stating **one action they will take to reduce their carbon footprint**, **made a plan**, and included **images**. They also **recorded a flipgrid video** to share with the class highlighting their action to improve and set a plan.	Student created a slide stating one action they will take to reduce their carbon footprint and recorded a video highlighting the action.	Student created a slide with an action to reduce their carbon footprint.	Student created a flipgrid video.
Student Collaboration/ Participation (on Nearpod)	Student participated in a nearpod lesson, posted responses to both collaboration questions, completed the vocabulary matching quiz, and analyzed their carbon footprint score.	Student participated in nearpod lesson and posted responses to both collaboration questions.	Student participated in nearpod lesson and completed the vocabulary matching quiz.	Students logged into the nearpod lesson.
Total Score:				
Comments:				

Slide Presentation - One action to reduce your carbon footprint, plan to achieve it, and add images (assignment posted in google classroom)

Flipgrid - students made a pledge to take one action to reduce your carbon footprint.

Seesaw- students read about causes of global warming and causes of global warming. After reading, students analyzed their carbon footprint.

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 student work samples as assessments of student learning that meet/exceeded expectations, and copies of standards-aligned lesson plans. Additional documentation of the lessons such as photographs and news articles may also be submitted.