

Freshkills Park Alliance Virtual Education Programming Options Updated November 2020

Thank you for your interest in virtual education at Freshkills Park!

Cost: Virtual programming is available free of charge except for those organizations that may be charging their members in which case a donation is encouraged. That being said, donations from all groups are encouraged and very much appreciated.

Content: Our virtual education programming focuses on sustainability, waste management, grassland and wetland ecology, park development, and environmental restoration and is aligned with New York State science standards. Our virtual programming is flexible, and we are happy to work with you to adapt the content to your students. Pre- and post-field trip activities are available for some lessons and will be shared after registration. If you would like an education opportunity that is not on this list, please contact Rachel at <u>raronson@freshkillspark.org</u>.

Note: Because of limited WiFi bandwidth at the park and the desire to prioritize interaction and discussion, these field trips are **not** conducted live from the park, but do include highly interactive video, images, audio, and 360-degree imagery.

Schedule a Virtual Field Trip

Elementary (K-5)

- 1. *Trash and Sustainability (30-45 minutes)*: What happens to my trash after I throw it away? Students will learn the story of trash, from sanitation truck to landfill, and explore the idea that there is no such place as "away". They will also brainstorm ways to reduce the amount of trash they throw away. Students are asked to bring a piece of trash or recycling for an interactive activity.
- 2. Wonderful Wetlands (30-45 minutes): People used to think that wetlands were muddy swamps full of bugs. But wetlands are actually a special ecosystem that protect people, plants, and animals! In this field trip, students will learn about wetland superpowers and conduct a home-friendly science experiment showing that wetlands protect inland communities. Students will also meet two birds that live in wetlands, the Osprey and the Great Egret. They will observe these animals and explain how the animal's adaptations help them survive in their habitat.
- 3. Bugs of Freshkills (30-45 minutes): The Freshkills Park grasslands are full of amazing insects. In this field trip, students will become entomologists as they observe common



grassland insects like grasshoppers and praying mantis, and learn about some of the unique adaptations that help these insects survive in their ecosystem.

- 4. Insect Vision (30-45 minutes) In this trip, students will learn about how grasshoppers and other grassland species use vision to help them survive in the grassland.
- 5. Park Planner (30-45 minutes): Parks are an important part of our communities and neighborhoods. Freshkills Park is still being built, and will be the biggest park New York City has built in over 100 years! In this trip, students will consider the different people who use parks and how to design a park that meets diverse needs. The class will participate in a mapping activity to design the park for everyone! Student ideas are brought back to Freshkills Park planners and designers and may be incorporated into the final design.

Middle School (6-8)

- The Wetland Food Web (30-45 minutes) How are the plants and animals that live in wetlands connected to one another? In this virtual trip, students will meet birds, fish, and plants of the Freshkills Wetlands and explore why and how each species is adapted to live in a wetland habitat. Students will participate in an interactive activity creating a "wetland food web" mapping the connections between species.
- 2. The Grassland Food Web (30-45 minutes) How are the plants and animals that live in grasslands connected to one another? In this virtual trip, students will meet birds, insects, mammals, and plants of the Freshkills grassland and explore why and how each species is adapted to live in a grassland habitat. Students will participate in an interactive activity creating a "grassland food web" mapping the connections between species.
- 3. Biodiversity in the Grasslands (30-45 minutes): Grasslands are one of the most endangered ecosystems in the world, but many in New York are not aware of their importance. In this virtual field trip, students will explore biodiversity in the grasslands by looking at grass and bird species and explain why cultivating biodiversity is important.
- 4. *Park Planner (30-45 minutes):* Parks are an important part of our communities and neighborhoods. Freshkills Park is still being built, and will be the biggest park New York City has built in over 100 years! In this trip, students will consider the different people who use parks and how to design a park that meets diverse needs. The class will participate in a mapping activity to design the park for everyone! Student ideas are brought back to Freshkills Park planners and designers and may be incorporated into the final design.
- 5. *Trash and Sustainability (30-45 minutes)*: What happens to my trash after I throw it away? Students will learn the story of trash, from sanitation truck to landfill, and explore



the idea that there is no such place as "away". They will also brainstorm ways to reduce the amount of trash they throw away. Students are asked to bring a piece of trash or recycling for an interactive activity.

High School (9-12; works well with Living Environment and Environmental Studies core classes and electives)

- 1. What should we do with our trash? (Two 30-minute sessions): Managing municipal solid waste (MSW) is one of the most complex and important environmental challenges we face. The former Fresh Kills Landfill, once the largest landfill in the world, is a case study in changes of solid waste management over time. The first session will include a 20 minute presentation, with time for Q and A, about the history of the Fresh Kills landfill and its transformation into a park. After the first session, students will complete an asynchronous guided group research project using Google Slides to investigate major approaches to solid waste management: landfills, waste-to-energy plants, shooting into space, recycling, and reducing. In the second session, students will share out the results of their research and discuss the complications of reducing waste.
- 2. The Plastic Pollution Problem (Two 30-minute sessions or one 1.5 hour session with breakout group): Single-use plastics are a persistent environmental problem, but there are very different ideas about how to reduce their use. The first session will include a 20 minute presentation, with time for Q and A, about the history of the Fresh Kills landfill and the role of single-use plastics in waste management. After the first session, students will complete an asynchronous guided group research project using Google Slides to investigate different approaches to reducing plastic waste: legislation, recycling, scientific innovation, and behavior change. In the second session, students will share out the results of their research and discuss potential solutions to the environmental and social impact of single-use plastics.
- 3. *Grassland Ecosystems (45 min-1 hour)*: Grasslands are one of the most endangered ecosystems in the world, but many in New York are not aware of their importance. Over 800 acres of healthy grassland are growing on top of the closed landfill at Freshkills Park. In this presentation, students will learn about grassland habitats and encounter some of the plants and animals that live there.
- 4. Welcome to Freshkills Park (45 min-1 hour): Freshkills Park, the largest landfill-to-park transformation in the world, is a case study in environmental transformation. For 53 years, millions of tons of New Yorker's trash went to Fresh Kills Landfill. Since then, the landscape has been transformed into a healthy ecosystem and a center for scientific research, art, and urban planning. This presentation offers a behind-the-scenes look at Freshkills Park history, landfill engineering, plants and animals, and more. Presentation lasts about 40 minutes, with time for discussion and Q&A.



Higher Education and Community Groups

- Introduction to Freshkills Park (1 hour): Freshkills Park, the largest landfill-to-park transformation in the world, is a case study in environmental transformation. For 53 years, millions of tons of New Yorker's trash went to Fresh Kills Landfill. Since then, the landscape has been transformed into a healthy ecosystem and a center for scientific research, art, and urban planning. This presentation offers a behind-the-scenes look at Freshkills Park history, landfill engineering, plants and animals, and more. Presentation lasts about 40 minutes, with time for discussion and Q&A.
- 2. Ecology and Restoration at Freshkills Park (1 hour): Freshkills Park is a human-created natural system. Since the closure of the Fresh Kills Landfill, the area has been restored as a healthy grassland, wetland, and woodland ecosystem. This presentation will share research about the regeneration of ecosystems at Freshkills, and consider the environmental implications of reclaiming a destroyed landscape. Presentation lasts about 40 minutes, with time for discussion and Q&A.

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