

Visit the ***Follow The Energy Paths*** exhibit section.

Energy is happening all around the museum right now.

Can you find examples of the following types of energy?

Electric Energy:

Sound Energy:

Heat Energy:

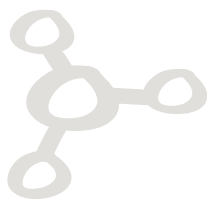
Mechanical (Motion) Energy:



Visit the ***Set The Ball in Motion*** exhibit section.

Sketch your design for a ball run that would move the ball from one end to the other. Label the appropriate areas of your ball run where there is potential or kinetic energy happening. Circle the parts that you want to use to design your ball run.

Design and draw your ball run here:



How could you change your design to make your ball go faster/slower?

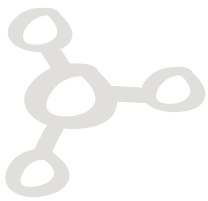


Visit the **BIG** picture of a playground behind the *Set The Ball in Motion* exhibit section.

1. Circle where you see things moving.
2. Put an X over things that are not moving.
3. Draw a star at a point where you think the potential energy is high.
4. Draw a triangle where you think the kinetic energy is high.



Draw your favorite way to move!



Visit the **Circuit Block Tables** exhibit section.

Draw and label your circuit! Include arrows to show where the energy is flowing.

This exhibit has lights, buzzers and motors. What else would you like to include in building a circuit?





STUDENT WORKSHEET

Powering the City

Visit the *Full Body Energy Generation* exhibit section.

Use your body to create and measure energy on the bike, crank and jump pad.

Which one did you feel like you had to use the most energy to move? _____

Which one did you feel like you had to use the least energy? _____

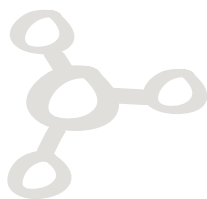
Why do you think one was easier than the other? _____

What are the foods that give you the most energy to do your favorite activities?



Visit the *Light Island* exhibit section.

Experiment with the materials on the light table and describe what you observe.



What colors did you see when the light refracted through the prism?

Now that you've explored *Powering The City*, What more would you like to learn about energy?





Educator Guide: Curriculum Connections *Powering the City*

The standards listed below refer to the entire exhibition experience beyond the questions included on this worksheet.

Grades K – 2

1-PS4-1 Waves and Their Applications in Technologies for Information Transfer
1-PS4-4 Waves and Their Applications in Technologies for Information Transfer
K-2-ETS1-2 Engineering Design
K-2-ETS1-3 Engineering Design

Grades 3 – 5

3-PS2-1 Motion and Stability: Forces and Interactions
3-PS2-2 Motion and Stability: Forces and Interactions
4-PS3-1 Energy
4-PS3-3 Energy
4-PS3-4 Energy
3-5-ETS1-2 Engineering Design

Grades: 6 – 8

MS-PS2-1 Motion and Stability: Forces and Interactions
MS-PS4-2. Motion and Stability: Forces and Interactions
MS-ETS1-2 Engineering Design.
MS-ETS1-3. Engineering Design

Grades 9 – 12

HS-PS3-3 Energy

Based on New York State Science Learning Standards and the New York City Department of Education Science Scope and Sequence (2022)

