

# The **Basics of Green Roofs:**

#### The New School

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A fun and interactive way to introduce green roofs to 5th and 6th graders!

\*Created based on NYS Science standards

What are green roofs? and why are they important to us? Green Roofs are the roofs of buildings that are partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane.	Fill in each of the vocabulary wor (Practice spelling the word below 1. Gn R
	2. W_t pr g
Benefits of green roofs:	
1. Helps reduce the heat island effect	3ea_ Ar
2. Helps remove carbon dioxide from the atmosphere	
3. Helps reduce the energy required to heat/cool a building	4. S _ o a
4. Increase biodiversity	
5. Retains stormwater	5. Ur H I nd
What do you think a green roof looks like? Have you ever visited one? In the space below, draw what you think a green roof looks like: (After you finish the drawing share it with your classmates!)	6 io s _ ty
	7. Cl e C ge
	8. Gre I _ fra uc
	9 re Ho
	10. Geo al E _ er _ y

\*Bonus: E \_ \_ p \_ \_ran \_ \_ \_ \_ tion

#### ords with the correct letters: w it)

### **Multiple Choice Questions**

## In the picture below: - I-

#### 1. What is sustainable in the picture above?

- a. the buildings electricity
- b. the street
- c. the sun
- d. the windows

#### 2. The total amount of organisms in a given area or volume is biomass.

a. true

- b. false
- c. it depends

#### 3. What is an example of renewable resource in the picture above?

- a. the decomposer
- b. the buildings
- c. the sun

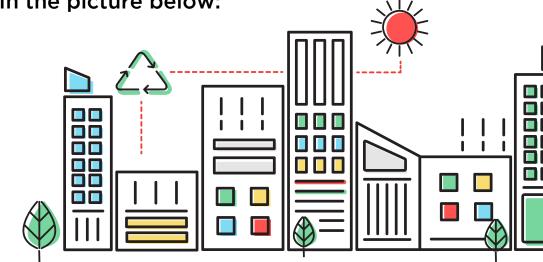
## **Reflection Questions:**

1. What are green roofs?

3. Why is energy conservation important?

4. What are some places to get energy from? (solar, heat, etc.)

5. What is climate change?



2. What is the difference between reusable energy and renewable energy?

# **Vegetation**

What you are going to grow such as: flowers, vegetables, grass, seedum.

# Growing Medium

Supplies water and nutrients to plant roots. Provides gas exchange to roots and support to keep plants anchored down.

# **Filter Membrane**

Prevents any plant matter or soil particles from falling into the drainage layer.

# **Drainage Layer**

Ensures large amounts of water aren't retained on the roof, which could cause structure damage to the building and waterlog the plants.

# Waterproof/Root Repellent

Bottom layer that prevents roots and water from passing through it and causing potential damage to the roof.

