

Name: _____ Date: _____ Class: _____

Day 1 Magic Sidewalk Worksheet

Time of Day _____ Temperature _____ Humidity _____ Dew Point _____

Weather _____

1. List the types of materials used to create a concrete sidewalk.

Material 1	Material 2	Material 3	Material 4
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2. What material from the list above would you remove to create a magic sidewalk? _____

3. Magic Sidewalk Mix **Trial 1**

Material 1	Material 2	Material 3
Amount (volume/ratio) of Material 1	Amount (volume/ratio) of Material 2	Amount (volume/ratio) of Material 3

Observe Does Magic Sidewalk Trial 1 stick together? _____
Does Magic Sidewalk Mix Trial 1 look magical? _____

4. Magic Sidewalk Mix **Trial 2**. What material would you remove? _____

Material 1	Material 2	Material 3
Amount (volume/ratio) of Material 1	Amount (volume/ratio) of Material 2	Amount (volume/ratio) of Material 3

Observe Does Magic Sidewalk Trial 2 stick together? _____
Does Magic Sidewalk Mix Trial 2 look magical? _____

5. Magic Sidewalk Mix **Trial 3**. What material would you remove? _____

Material 1	Material 2	Material 3
Amount (volume/ratio) of Material 1	Amount (volume/ratio) of Material 2	Amount (volume/ratio) of Material 3

Observe Does Magic Sidewalk Trial 3 stick together? _____
Does Magic Sidewalk Mix Trial 3 look magical? _____

Name: _____ Date: _____ Class: _____

Day 2 Magic Sidewalk Worksheet

Time of Day _____ Temperature _____ Humidity _____ Dew Point _____

Weather _____

Magic Sidewalk Infiltration Testing

1. Infiltration Rate

Use the same amount of water for each trial and keep track of the time it takes for the water to disappear.

	Volume of water (ml)	Time to drain (sec)	Infiltration rate (ml/sec)
Trial 1			
Trial 2			
Trial 3			

2. Observations:

Describe what happens to the water when you pour it onto the surface of your “magic” sidewalk.

3. What magic sidewalk mix would you recommend for reducing the amount of stormwater runoff?