

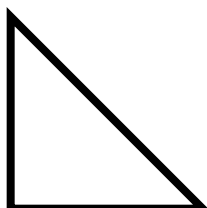
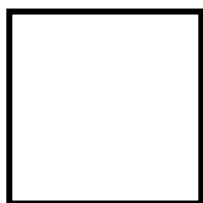
**Classroom Explorations: Remote Sensing
Calculating Impervious Surface**

Student/Group Name: _____

Date: _____

In this activity, you will use a satellite aerial image to calculate the amount of impervious surface.

1. Overlay 1x1 inch grid on top of image.
2. Color in squares and/or right triangles on grid that are over impervious surface.



- 1 inch = 200 feet

3. What is the area of 1 square (in ft²)? _____

4. What is the area of 1 right triangle (in ft²)? _____

| | How many? | Area (ft ²) |
|-----------|-----------|-------------------------|
| Squares | | |
| Triangles | | |

Total area of impervious surface (ft²): _____

5. Calculate percentage of impervious surface by dividing impervious surface area by total area of grid.

- Total area of grid (ft²): _____
- Percentage (%) of impervious surface: _____

6. Assess the health of this area based on your impervious surface percentage.

% Impervious: _____

Health: _____

| % Impervious | Health |
|--------------|------------------|
| <1% | Unstressed |
| 1-5% | Lightly Stressed |
| 5-10% | Stressed |
| >10% | Suffering |

7. What are some and steps that can be taken to improve health?
