

Name: _____

Directions: After opening the page, click on the link- “run smog city”. *Be patient, it may take time to load.* There are six variables you can manipulate in the simulation. You will be manipulating the variables to discover the answers to the following questions.

Variables: (Pick One for Each)

- Air Speed (*little windmill*)
- Inversion Level- height of air mass that traps pollution (*black stripe*)
- Temperature (*thermometer*)
- Cloud Cover (*clouds*)
- Population (*plain meter*)
- Emissions (*dials at the bottom*)

- 1) What is **AQI**? *What levels are there for air quality?*

- 2) What is **Ozone** and *why are children most at risk?*

- 3) How does **air speed and wind** affect the level of smog in the city? *Explain.*

- 4) How does **temperature** affect the level of smog in the city? *Explain.*

- 5) **Which type of emission** has the greatest affect on air quality? *Identify and explain why.*

- 6) Would you expect there to be more smog on a **cloudy day or a clear day**? *Explain.*

RESET the simulator and try to create the **WORST** conditions for smog in your city- you should be able to get the air quality index up to unhealthy levels- *What are the readings for each of your variables to produce the nastiest city air?* **Discuss.**