Name _____ Date _____ Class _____

How Does a Satellite Work?

Demonstrate how satellites use waves to send, receive, and collect data.

1. Draw a diagram showing the following:
   - The components of a satellite: the bus (the body of the satellite), the power source (comprised of batteries and/or solar array panels), and the instruments, if possible (the sensors, imagers, and sounders that collect and send data back to Earth)
   - How waves behave (e.g., solar radiation interacts with Earth's surface and reflects back to satellites, satellites send and receive waves [data])

2. Think through your animation.
   - What is your goal for the audience? (To learn something and/or to have fun?)
   - What are the criteria for a good grade?
   - Will you use existing sprites, create sprites, or find sprites online?
   - How long do you want it to be? (Remember, you will have less than an hour in class to animate.)

   If it will help you, use the blocks below to quickly sketch your scenes in the order in which they will appear (i.e., storyboard).

Scene One

Scene Two

Scene Three

Scene Four

Scene Five

Scene Six

Scene Seven

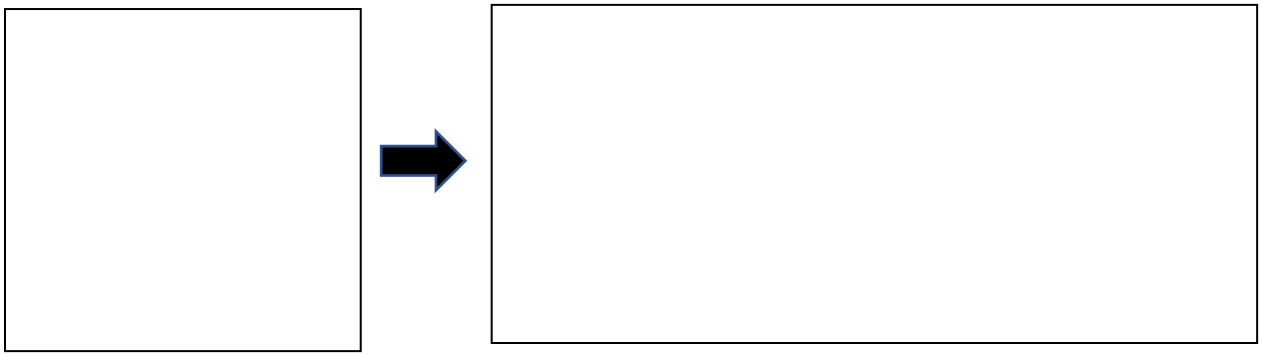
Scene Eight

Scene Nine

3. To animate your diagram in Scratch, either as a story or a game, consider the sprites you will need and the actions you want them to take. (Use notebook paper if you need more than four sprites.)

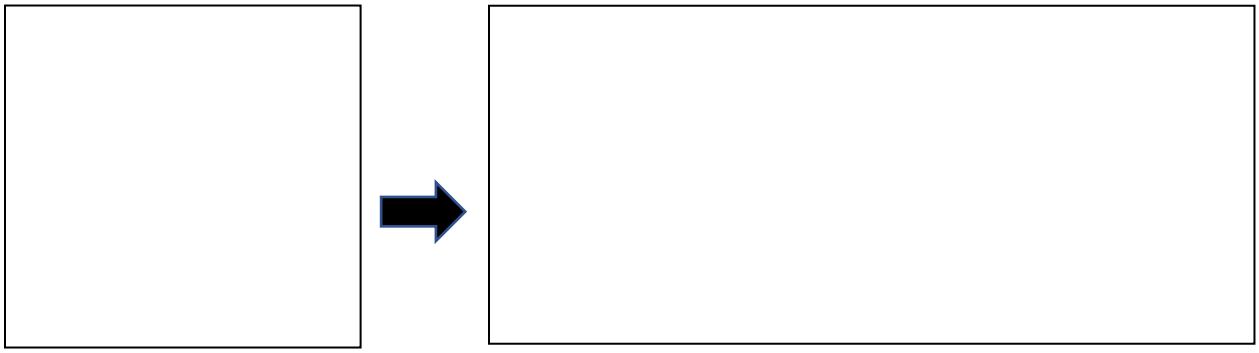
SPRITE 1

WHAT WILL IT DO? (scripts, costumes, sounds)



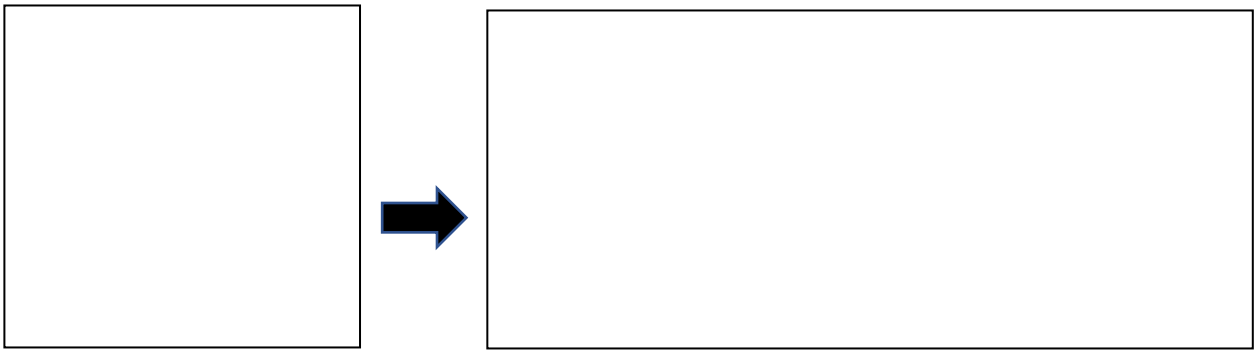
SPRITE 2

WHAT WILL IT DO? (scripts, costumes, sounds)



SPRITE 3

WHAT WILL IT DO? (scripts, costumes, sounds)



SPRITE 4

WHAT WILL IT DO? (scripts, costumes, sounds)