



Smallpox

STEM Sims

Lesson 3: Blood Pressure and Temperature

Taking a patient’s temperature is important because a fever indicates that the body is fighting off an infection. The warmer temperature increases the mobility of the white blood cells and creates unfavorable conditions for the invading bacteria or virus so that it cannot replicate as easily. Blood pressure is the force of blood against the artery walls. Find out if there is a correlation between temperature and blood pressure.

Doing the Science

1. Start the Smallpox Simulation by clicking on the “Sim” tab.
2. Take the patient’s temperature by clicking on the thermometer. Record the temperature into Table 1 below.
3. Take the patient’s blood pressure by clicking on the blood pressure meter cuff (called sphygmomanometer).
4. Click on “Chart” to see the blood pressure, and record it in Table 1.
5. Click on the arrow above days to advance to the next day to see how the patient’s illness develops.
6. Repeat steps 2-8 until day 32.
7. Click on “New Patient” and repeat steps 2-6 for two additional patients.

Table 1.

Day	Patient 1		Patient 2		Patient 3	
	Temperature	Blood Pressure	Temperature	Blood Pressure	Temperature	Blood Pressure
1						
4						
8						
12						
16						
20						
24						
28						
32						

Do You Understand?

1. Did you find a relationship between temperature and blood pressure? If so, explain.