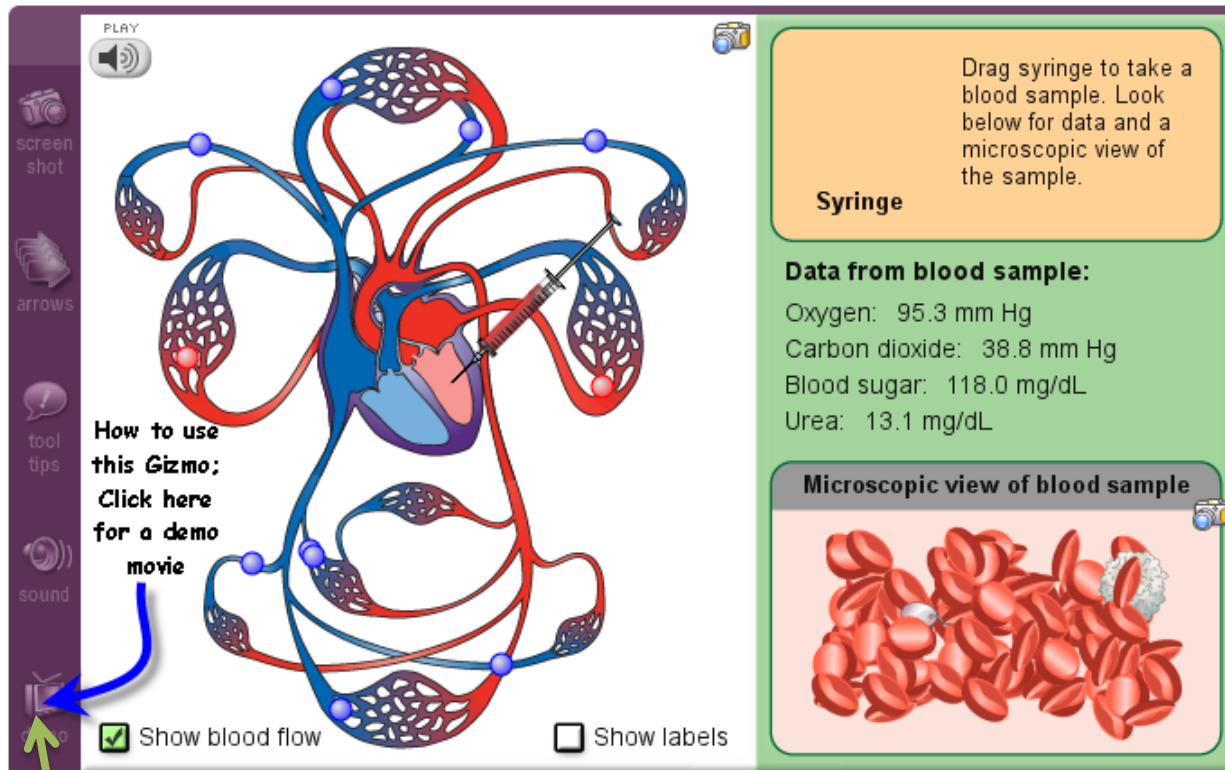
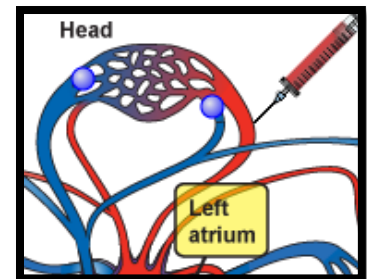
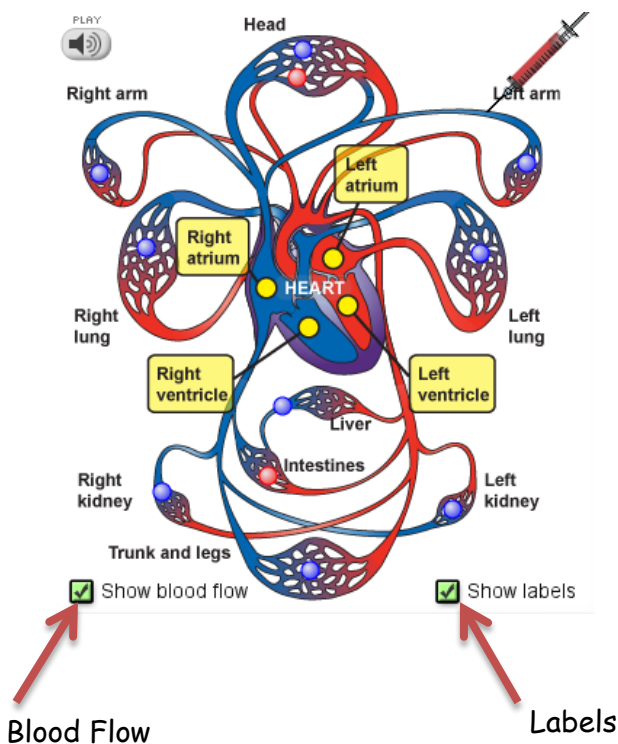


Circulatory (and Respiratory) System Gizmo

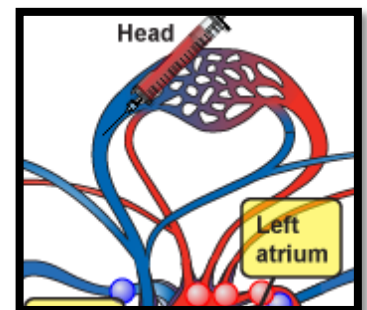


Step 1. Watch the Demo movie to learn how to use this Gizmo

Step 2. Turn on Blood and Labels and begin taking blood samples. Record data in table 1.



Example: Blood to the head



Example: Blood from the head

Table 1

Sample Blood at Green Circles

Blood Sample Location	Oxygen mmHg	Carbon Dioxide mmHg	Blood Sugar mg/dL	Urea (waste) Mg/dL
Left Atrium				
Right Atrium				
Left Ventricle				
Right Ventricle				
To Head				
From Head				
To Right Arm				
From Right Arm				
To Right Lung				
From Right Lung				
To Liver				
From Liver				
To Intestines				
From Intestines				
To Left Kidney				
From Left Kidney				
To Trunk and Legs				
From Trunk and Legs				

Step 3. Analyze your data and answer these questions:

1. Which side of the heart (left or right) is low in Oxygen? Why?

2. Look at the areas that are highest in oxygen (not including the heart and the lungs). Is blood flowing **to** or **from** these areas? **Why** are they higher in oxygen?

3. Look at the lungs. Which blood sample has more oxygen, blood flowing **into** the lungs or blood **leaving** the lungs? **Why**?

4. Areas that are low in oxygen tend to be (low/high) in carbon dioxide? **Why**?

5. Which area contained blood that was the highest in blood sugar? **Why**?

6. At which location(s) was Urea (waste) the highest? **Why**?

7. At which location was Urea (waste) the lowest? **Why**?