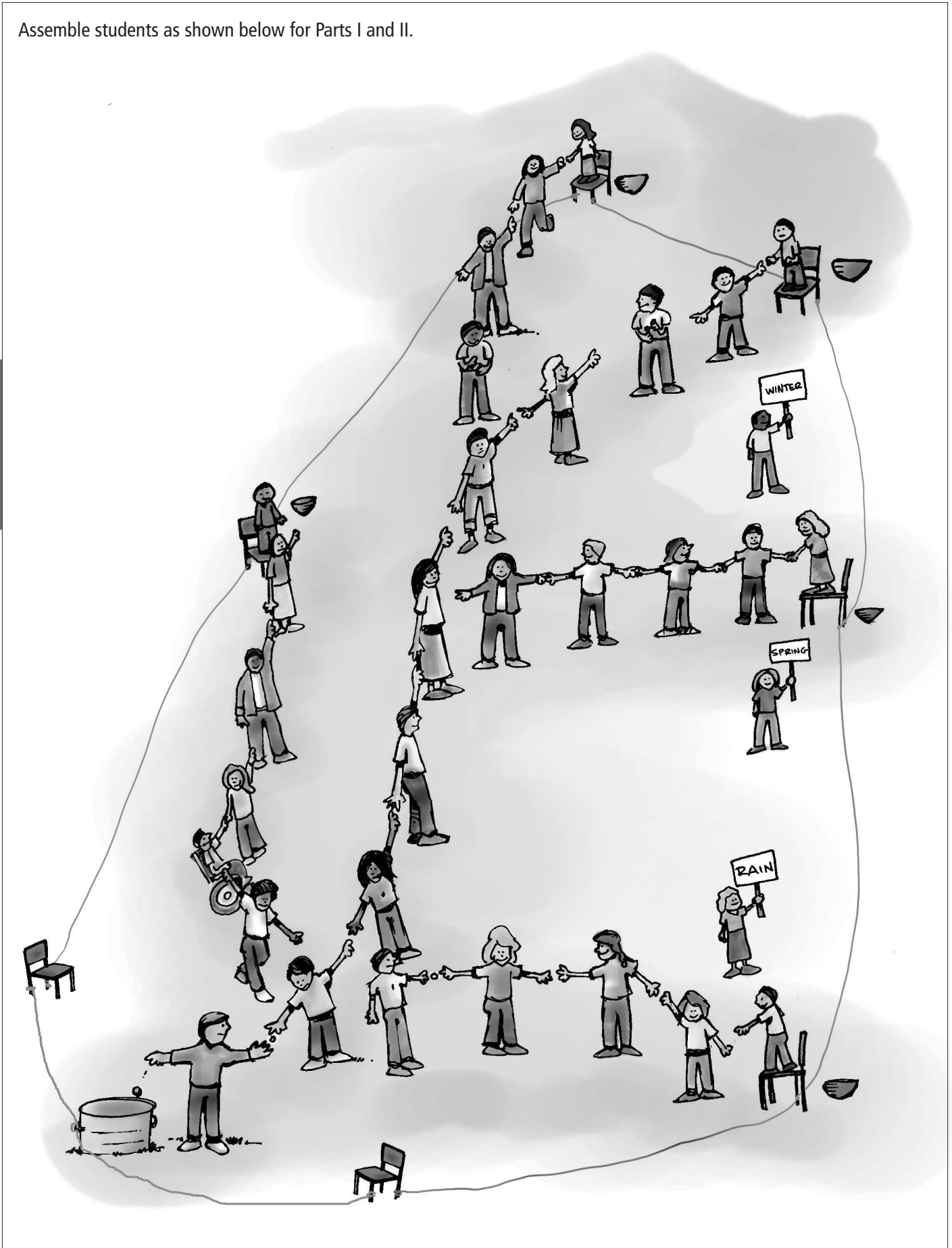




Assemble students as shown below for Parts I and II.





How is water measured in a river?

The amount of water in a river changes daily, seasonally and year to year. Hydrologists measure the river’s streamflow (amount of water passing through) at gaging stations (flow measuring stations) and make hydrographs (charts). A discharge hydrograph records the streamflow at one spot on the river over a period of time in cubic feet per second (cfs). Rainfall amounts and data from stream gaging stations help hydrologists plan for the needs of water users within a watershed, including: drinking water; water for crops and livestock; manufacturing and shipping products; fish and wildlife; and recreation.

Directions:

In the chart below, record the streamflow for each season from the simulation.

Imagine that this is a seasonal average and that each bead equals 10 cfs.

DATA

Season	# of beads	# of beads X 10 cfs = total cfs
Winter		
Spring		
Summer		
Fall		



PHOTO CREDIT: © iStockphoto—Thinkstock Photos

Stream gages are used to measure the depth of water in a specific location.



Graph your results below.
In which season is the greatest streamflow? The least? Why?
Record your data on the graph below for each of the seasons:

500 Beads / Min = 5000 cfs					
450 Beads / Min = 4500 cfs					
400 Beads / Min = 4000 cfs					
350 Beads / Min = 3500 cfs					
300 Beads / Min = 3000 cfs					
250 Beads / Min = 2500 cfs					
200 Beads / Min = 2000 cfs					
150 Beads / Min = 1500 cfs					
50 Beads / Min = 500 cfs					
Hydrograph for YOUR Blue River	Winter	Spring	Summer	Fall	

To see a hydrograph with data from a gaging station on a river in your watershed, go to: <http://waterdata.usgs.gov/nwis/rt>.

