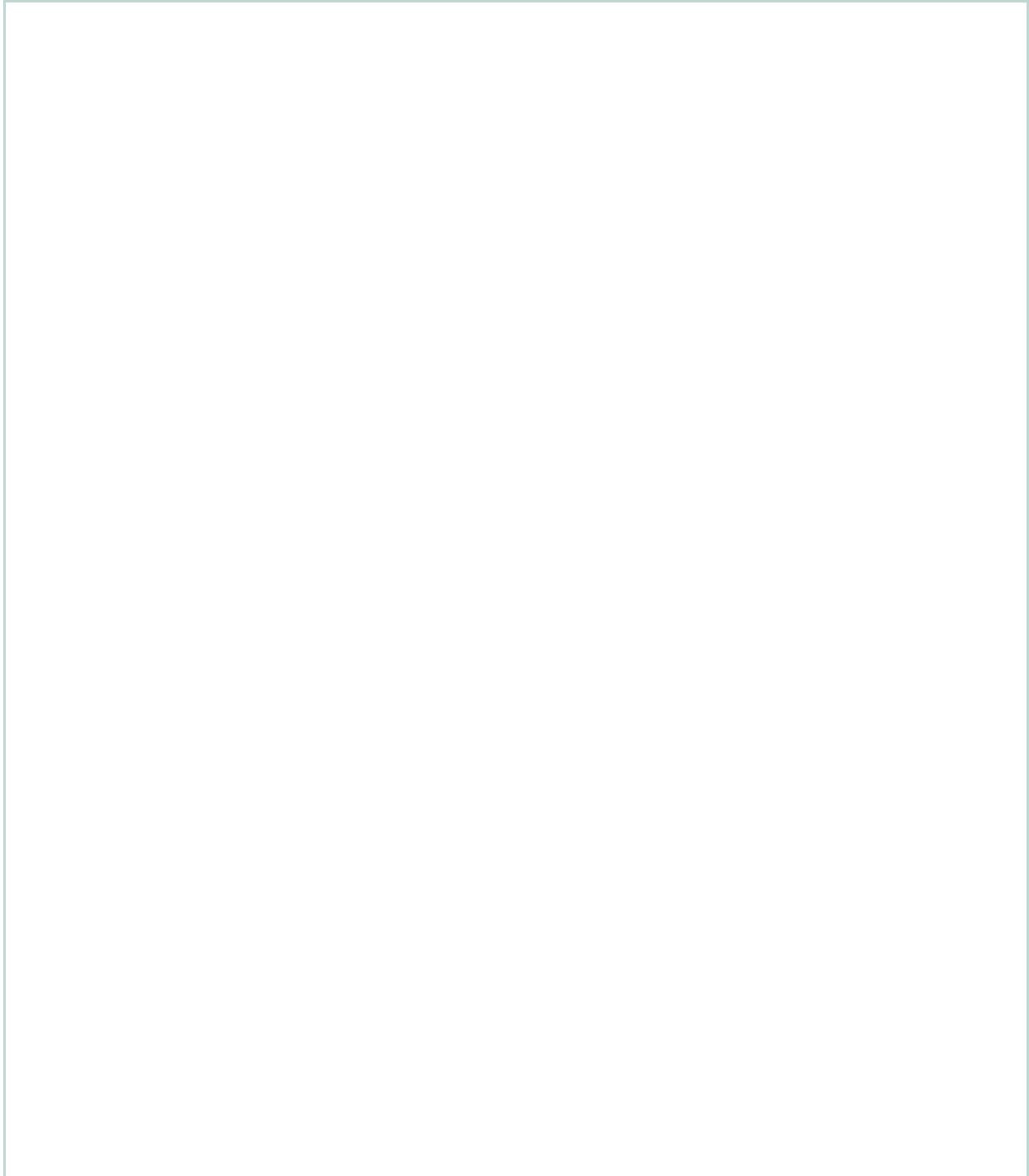# GLACIER SIMULATION

Drawing of Simulation Setup

Use the space below to draw your simulated glacier setup. Remember to note the variables, such as how many books you used and the temperature of your Gak.

Data Collection

Start the investigation and begin timing when you place the layered Gak at the top of the valley. Each time the Gak moves a centimeter, record the time (in seconds).

Distance (cm) Marked on Valley	Time (seconds) Taken for Gak to Reach Distance	Distance (cm) Marked on Valley	Time (seconds) Taken for Gak to Reach Distance
1 cm		16 cm	
2 cm		17 cm	
3 cm		18 cm	
4 cm		19 cm	
5 cm		20 cm	
6 cm		21 cm	
7 cm		22 cm	
8 cm		23 cm	
9 cm		24 cm	
10 cm		25 cm	
11 cm		26 cm	
12 cm		27 cm	
13 cm		28 cm	
14 cm		29 cm	
15 cm		30 cm	

Flow Rate Calculation

Let's figure out how fast your glacier was—in other words, what its *flow rate* was. The calculation for flow rate is *speed equals distance divided by time (s = d/t)*. For example:

Distance = 30 cm

Time = 45 min 25 sec (or 2,725 sec)

Flow rate (speed) = distance/time

Flow rate (speed) = 30 cm/2,725 sec

Flow rate (speed) = 0.011 cm/sec or 0.011 centimeters per second

Now, it's your turn! How speedy was your simulated glacier?

Distance = _____ cm

Time = _____ sec

Flow rate (speed) = distance/time

Flow rate (speed) = _____ /_____

Flow rate (speed) = _____

What factors might have made your glacier move faster or slower than other groups' glaciers?