DIY Water Clock

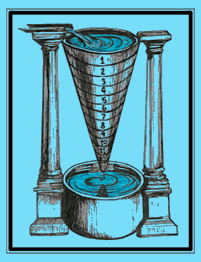
Students will use water to track the passage of time.

6th - 8th Grade

Materials

- Large, clear plastic bottle
- Scissors
- Nail or other sharp object
- Marker
- Food coloring (optional)
- Stopwatch

Click the clepsydra below to see an example!



Time-tested Timekeepers

The clepsydra, or water clock, dates back to 1500 B.C. and was once a valuable time-tracking tool used in various ancient societies. Water clocks measure time based on how much water flows from one container to the next. You can build your own version at home with a few simple materials.

Directions

1. First, measure about halfway down the bottle, then cut the bottle in two using the scissors.
2. Now, unscrew the top off the bottle and make a small hole in it using the nail. Then put the lid back on the bottle.
3. Next, turn the top half of the bottle upside down and place it inside the bottom half, so that the bottle top is facing downwards.
4. Pour the water into the top of the bottle. Make sure the water can drip freely into the bottom half of the bottle. Start the stopwatch.
5. Each time a minute passes, mark a line at the water level of the bottom bottle.
6. Once all the water has passed into the bottom bottle, pour the water back into the top half and count off the minutes as the water pours down. Voila — your plastic bottle has transformed into an ancient timepiece!

Interested in the history of tracking time? Wonder why we have time zones? Check out this video by TED-Ed.

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