



Environmental
Defense
Fund

Water Fix Lab

Teacher Edition: Texas 5th Grade Science TEKS Summary



Water Fix Lab

Materials Needed

- 6 plastic cups with small holes in the bottom
- 6 plastic cups without holes
- Filter materials (cotton balls, charcoal, gravel, sand, etc)
- Coffee filters
- Lunch trays or foil (to catch spills)

Additional Supplies include:

- Worksheet to track materials
- Paper towels for cleanup
- Trash can or sink for disposing water
- Tables or stations for each team
- Voting stickers to determine the competition winner

Get Started

You and your classmates are stranded and must build a water filter from provided materials to clean dirty pond water. Work as teams, test multiple designs and improve them. The team that produces the cleanest water wins.



Step 1

Use a cup with holes in the bottom as the filter and a cup without holes to collect filtered water.



Step 2

Choose up to three filter materials and layer them in the filter cup.



Step 3

Record your materials and their layer order on the worksheet.



Step 4

Stir one cup of dirty water so the particles are mixed.



Step 5

Have your timer ready.



Step 6

Pour the dirty water into the filter and start timing as you pour.



Step 7

When filtration finishes, rate how cleanliness on the worksheet:
0 = very dirty
3 = very clean



Step 8

Record the filtration time.



Step 9

Repeat with different material combinations and layer orders to improve results.



Step 10

Display your cleanest filtered water at the front of the class for comparison and voting.

Your filtered water is not clean enough to drink. But a plant will love it!