

Acids and Bases

Virtual Lab Introduction: Alien Juice Bar

GO TO: <http://www.lawrencehallofscience.org/kidsite/portfolio/alien-juice-bar/>

Challenge 1: Alien Juice Bar

1. Click on Challenge 1 then "start"
2. Answer the question in the box →
3. Click on the pitcher of cabbage juice and drag towards one of the three drinks.
4. The cabbage juice will pour into a beaker and may or may not change color.
5. Continue until all three drinks have been poured.
6. Place the drinks onto the correct shelf above the alien's head.
7. When done, pull the "check me" lever.
8. If you are wrong, the bottles will come off the shelf - try again until you get them all right!
9. Fill in the data table below to show your results.

What is an indicator?

Drink	Color in Beaker	Acid, Base or Neutral?
Window Cleaner		
Lemon Juice		
Water		

Click on "Test More" to continue.

10. Click on the pitcher of cabbage juice and drag towards one of the nine drinks.
11. You may pour the cabbage juice to indicate if it is an acidic, basic or neutral drink.
12. Continue until all nine drinks have been poured, or you can try to guess the pH of each bottle!
13. Place the drinks onto the correct shelf above the alien's head.
14. When done, pull the "check me" lever.
15. If you are wrong, the bottles will come off the shelf - try again until you get them all right!
16. Fill in the table below to indicate where each drink belongs.

Acid	Neutral	Base

• Click on "Continue", then click on "Main Menu".

Challenge 2: The Flying Cabbage Juice Bar

1. Read the directions on the screen and then hit "Start".
2. Copy the pH diploma →
3. Listen to your customers carefully, if you give them the wrong drink, they can get sick or even die and you will lose your license! Good Luck!
4. You can test the pH of each drink with the pitcher of cabbage juice and you can also restock the shelf if you run low on drinks.
5. Drink choices: lemon juice, water, mouthwash, water, cough medicine, window cleaner, toothpaste juice, coffee, liquid soap, water, soda pop, and orange juice.
6. Record your results into the data table on the back of this page.

pH Diploma

Pink = _____

Green = _____

Purple = _____