



enacting climate

Leaky Lanes

Climate Solution:

Refrigerant Management

Approximate Time:

30 Minutes

Supplies Needed:

White vinegar

Small cups (2 per team)

Buckets (2 per team)

Obstacles (chairs, boxes, etc.)

Tarp (if playing inside)

Number of leaders:

1–2 people

Number of players:

8–14 players

Recommended Age:

8–12 years old



Description:

This fun activity demonstrates the importance of managing refrigerant leakages with care and attention.

Background Information:

Unattended refrigerant leakages contribute to the depletion of the ozone layer. Refrigerants now are composed of hydrofluorocarbons (HFCs) which hold 1,000-9,000 times more heat than carbon dioxide. When they are leaked into the air, even a small amount can cause great damage to the atmosphere. This activity emphasizes the importance of awareness and proper management of refrigerant leakages, and addresses possible obstacles that could inhibit direct action as well as creative solutions to combat them.

Instructions:

Materials

- **White vinegar** to represent the refrigerant
- **Small containers**, 2 per team (8 oz. cups work well)
- **Medium containers**, 2 per team (Buckets or large bowls)
- **Objects** to create obstacles, such as chairs, boxes, etc.
- **Tarp** or plastic covering for floor, if playing inside

Set Up

- Set up an obstacle course using furniture or boxes
- Place buckets at the end of the obstacle course
- Fill half of the small cups with white vinegar
- Divide participants into 2-person teams
- Each team decides who is Person A and Person B

Game Play

- The goal is for each team to move through the obstacle course as quickly as possible without spilling the vinegar.
- Person A carries a full cup, while Person B carries an empty cup and tries to catch the vinegar that spills from the full cup.
- When the team reaches the end of the obstacle course, both teammates empty any vinegar left into their first bucket.
- Time each team and compare the amount of vinegar left.
- Before the second round, give teams time to discuss strategies for how to get through the course without spilling as much vinegar.
- Let each team run through the course again, implementing their strategies and pouring the vinegar in their second bucket.
- Time the run and measure the vinegar left over at the end, to compare it to the amount of vinegar left over from the first round.
- After all the teams have gone through twice, guide players in connecting the activity to refrigerant management.



Discussion Questions:

- What does the vinegar in this activity represent? (Refrigerant chemicals)
- Why is it important to be aware when refrigerators and AC units are leaking?
- What obstacles might stop people from recycling old refrigerators and AC units?
- What strategies could help us overcome those obstacles?
- How can you help your community become more aware of this climate solution?

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