



SET UP INSTRUCTIONS

Climate Change Affects the Atmosphere Kit

Introduction to Portable Self-Guided Exhibit Kit

“Climate Change Affects the Atmosphere” is one of four portable self-guided exhibit kits in the Climate Change Toolkit. Each kit includes an activity map and four hands-on activities that can be packaged in a small bag or box and bundled together for checkout by families. The kits are designed to present some of the science behind how climate change is affecting this environment while also providing opportunities for participants to learn how their behavior can make a positive difference. At the end of each activity guide look for the Climate Detective Challenge question; the answer to this question can be found along the edge of the activity map. Have fun!

Setting up the Kit

Things you will need to set up the kit:

1. Container such as a backpack, a wooden box, or a plastic tub that has internal dimensions of approximately 14” x 11” x 5” (l x w x h). This container will hold the 4 activities and activity map.
2. 4 activity bags to hold the contents of each activity (1 gallon plastic storage bags or cloth pouches)ⁱ.
3. Activity map printed from toolkit files.
4. Labels printed from toolkit files for activity box/ container.
5. CO₂ molecule icon game pieces (4 per activity map).
6. Velcro to attach game pieces to activity map.
7. General assembly supplies such as scissors, hole puncher, glue, string, etc.

Kit Preparation Instructions:

1. **Download** and **print** 24” x 18” (L x H) activity map (we recommend printing on vinyl or ordering as a game board)ⁱⁱ. **Place** inside activity box/ container.
2. **Download** and **print** the four CO₂ molecules game pieces. **Attach** velcro to game pieces and activity board.
3. **Download** and **print** title labels for “how to explore this kit” and other labels. **Attach** labels.
4. **Download** and **print** directions for inside of activity box/container. **Attach or place** directions inside activity box/ container.
5. **Assemble** each activity and **place** each into a small bag.



Setting up the Activities

Let's Make Molecules

Things you will need:

1. Activity guide
2. Molecule building set (with at least 2 carbon atoms, 3 oxygen atoms, 6 hydrogen atoms and 10 bonds)ⁱⁱⁱ.

Preparation Instructions:

1. **Download** and **print** activity guide.
2. **Place** atoms, bonds and activity guide in activity pouch.

Cloud Conundrum

Things you will need:

1. Activity Guide
2. Cloud Conundrum puzzle pieces

Preparation Instructions:

1. **Download and print** activity guide and sheet of puzzle pieces.
2. **Cut** puzzle pieces and **glue** to card stock, foam, or other sturdy material. (Consider having puzzle professionally printed).^{iv}
3. **Place** activity guide and puzzle pieces into activity pouch.

CO₂ The Invisible Gas

Things you will need:

1. Activity guide
2. Flash light with colored lenses
3. 4" by 8" block of wood
4. Different colored paper (at least 4 colors)
5. At least 4 different colored gel or acetate sheets (colored transparencies)^v

Preparation Instructions:

1. **Download and print** activity guide.
2. **Cut** different colored paper out in different shapes. **Glue** shapes to wooden block.
3. **Place** activity guide, flashlight, block of wood, and colored sheets into activity pouch.

CO₂ Tips the Scales

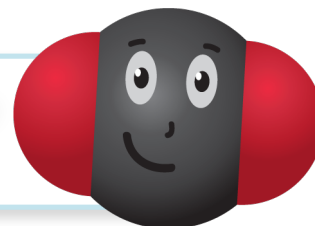
Things you will need:

1. Activity guide
2. Diet/utility scale^{vi}
3. Washers that weigh approximately 20g each.
4. Scale label

Preparation Instructions:

1. **Download** and **print** activity guide and scale label.
2. **Cut** out and **attach** scale label to be able to read years and CO₂ concentrations.
3. **Place** scale, washers, and activity guide in activity pouch.

For durability we recommend laminating activity guides, labels and other activity materials



These supplies can be purchased at:

ⁱ reuseit: www.reuseit.com

ⁱⁱ Chicago Game and Card Co.: www.chicagogameandcard.com

ⁱⁱⁱ Flinn Scientific, Inc.: www.flinnsci.com

^{iv} Puzzle-my-Picture: www.puzzle-my-picture.com

^v American Science and Surplus: www.sciplus.com

^{vi} Amazon: www.amazon.com (77-90 diet/utility scale Polder[®])