Main Topic 1: Climate Change 101

Subtopic 1.1: The Greenhouse Effect: Earth's Blanket

Balloon Experiment

- 1. Blow up a balloon and tie it. Say, "This is our atmosphere!"
- 2. Put the balloon in the fridge for 10-15 minutes. What happens? (It shrinks!)
- 3. Take it out and let it warm up. Watch it get bigger again.
- 4. Cool, right? The heat-trapping gases in the air work a bit like this balloon.

Subtopic 1.2: Why Is It Getting Warmer?

Match Activities to Carbon Footprints

- 1. Write or print activity cards with fun pictures (like riding a bike or planting a tree).
- 2. Draw a poster with two sides: "High Carbon Footprint" and "Low Carbon Footprint."
- 3. Match each card to the side you think it belongs to.
- 4. Talk with your family about what we can do to reduce our footprints!

Subtopic 1.3: The Ice Is Melting!

Ice Cube Melting Experiment

- 1. Grab two bowls and put a big ice cube in each.
- 2. Sprinkle salt on one ice cube. Leave the other one alone.
- 3. Watch which one melts faster!
- 4. This shows how saltwater melts ice, just like the warming ocean melts glaciers.

Main Topic 2: Planet Protectors: How Kids Can Help

Subtopic 2.1: Turn Off the Lights!

Find Energy Vampires

- 1. Get a checklist and hunt around your house for "energy vampires" (like lights left on or chargers plugged in but not used).
- 2. Turn them off or unplug them—Zap! Vampire defeated!
- 3. Keep score: How many vampires did you find today?

Subtopic 2.2: Plant a Tree, Save the World

Plant a Seed or Small Tree

- 1. Get a pot and fill it with soil.
- 2. Use your finger to poke a small hole in the dirt.
- 3. Drop a seed in the hole, cover it with soil, and water it.
- 4. Watch it grow over the weeks. You're helping the planet with every leaf!

Subtopic 2.3: Walk, Bike, or Scoot!

Plan an Eco-Friendly Route

- 1. Look at a map of your neighborhood. Mark where you live and where you want to go.
- 2. Use colored pencils to draw routes you can walk, bike, or scoot on.
- 3. Time your trip and compare it with how long a car would take. Surprise! You might be faster!

Main Topic 3: Wild Weather and Changing Climates

Subtopic 3.1: Super Storms: Why Are They Getting Stronger?

Build Your Own Storm

- 1. Fill a clear jar halfway with water. Add a few drops of blue food coloring for the "ocean."
- 2. Stir the water gently with a spoon to make a whirlpool.
- 3. Drop tiny pieces of paper or glitter into the water to mimic storm debris.
- 4. Spin faster to make a "super storm!"

Subtopic 3.2: Droughts and Deluges

Make a Rain Gauge

- 1. Cut the top off a plastic bottle (ask an adult for help).
- 2. Flip the top upside down and place it inside the bottle like a funnel.
- 3. Use a ruler to mark lines and numbers on the side.
- 4. Put your rain gauge outside, wait for rain, and measure how much you collect!

Subtopic 3.3: Snow in Summer? What's Going On?

Weather Trivia Quiz

- 1. Prepare fun questions about weather (like "What's the hottest place on Earth?").
- 2. Write three silly answers and one correct one for each question.
- 3. Play with friends and see who can answer the most correctly.
- 4. Share fun weather facts after each round!

Main Topic 4: Animals and Climate Change

Subtopic 4.1: Polar Bears Need Ice

Help the Polar Bear Find Ice (Maze)

- 1. Print or draw a maze with a polar bear at one end and ice at the other.
- 2. Add fun obstacles like "melting ice" or "hungry seals."
- 3. Guide the polar bear safely to the ice and learn about why their homes are disappearing.

Subtopic 4.2: Butterflies on the Move

Butterfly Migration Map

- 1. Get a map of the world or your country.
- 2. Use stickers or markers to trace the Monarch butterflies' migration paths.
- 3. Add fun facts like how far they travel and why they move to cooler places.

Subtopic 4.3: Penguins and Melting Icebergs

Penguin Coloring Sheet

- 1. Download or draw a penguin coloring page with icebergs and fish.
- 2. Use your favorite colors to decorate the penguins and their world.
- 3. Talk about how melting ice is making life harder for these cool birds.

Main Topic 5: The Future of Our Planet

Subtopic 5.1: Cool Inventions for a Cool Planet

Match Renewable Energy Types

- 1. Print or draw pictures of solar panels, wind turbines, and dams.
- 2. Write their energy sources (like "sun," "wind," or "water") on separate cards.
- 3. Match each picture to the correct energy source.

Subtopic 5.2: Cities of the Future

Design Your Dream Green City

- 1. Grab a big piece of paper and draw a city with green features like solar panels, rooftop gardens, and electric buses.
- 2. Add fun details like bike paths, wind turbines, and parks.
- 3. Share your masterpiece with family and explain how your city helps the Earth.

Subtopic 5.3: How You Can Be a Climate Scientist!

Measure Temperature Differences

- 1. Put one thermometer in a sunny spot and another in the shade.
- 2. Wait 10 minutes and check both temperatures.
- 3. Write down what you see and think about how trees and shade can help keep cities cooler.