Puzzle ID	Puzzle Name	Required Documents / Props	First Message	Digital Components (Video/Music)	Hint 1	Hint 2	Hint 3	Hint 4	Success Message	Answer/Key	Learning Outcomes	Notes
P001	Blocking generator	-Letter that is riped into pieces -Magnifier -QR code players scan to submit answer -Computer to submit answer	The reactor's intake system is blocked because it can't identify the main pollutant it's supposed to capture. The sensors are confused. You need to figure out what the reactor needs to capture. There is a hidden message for you that can help you	- Page with a field to validate the word. It should let the users write the world, no matter if it is in Uppercase or lowercase. (case insensitive). - Message that let the player know that the message is wrong. "Try again". - Confirmation message when the answer is correct. "You got it, this is the way"	There are clues in the letter look carefully	There is something in the room that help is see things bigger	The letter has the answer in it, look at the icons	Is that a human trace?	You got it! You have identified the invisible mark: the carbon footprint. This is the total amount of greenhouse gases; like carbon dioxide, methane, and nitrous oxide emitted by a person or organization. It' s measured in kilograms, and by tracking this, we can see who the biggest contributors are and how our actions impact the planet. Know the sensors know what the generator needs to capture	Carbon footprint	Students will understand the meaning of carbon footprint, which is the metric used to measure the impact that every sector made in the planet	
P002	What is the target?	-Computer	The molecular disassembly chamber is malfunctioning; the lasers can't target the CO2 to decompose if it doesn't know the sources of the CO2. To calibrate the laser system, you must identify the hidden costs different categories have in our environment.	The interface could look like different lasers pointing in different places and are not aligned. When the users complete the drag-and-drop feature, the lasers can point directly to the categories. - 4 sections: Food, Clothing, Technology services, Transportation. - List of terms that the user can drag and drop into the categories. -Toxic chemicals -Water use -Water cooling -Fossil Fuel -Fossil Fuel -Deforestation -Microplastic pollution -Methane emissions -Mining extraction -Land use -Biodiversity Loss -Ecological Waste	Clothes: When you wash your clothes there is something that can go into the ocean and affect the animals	Food: The animals that we eat for our diet need a place where to live, what cost it can have?	Transportation: In order to move what source of energy do you need?	Technology: When you want to change your phone and tablet where does it go?	You nailed it! Now the lasers know where to point. Our daily actions and choices impact the world. Every sector has hidden costs that we sometimes can not see but we can help reduce with small actions. For example, we can buy food grown locally, buy second-hand clothes, use different types of transportation, like walking or riding a bicycle. Did you know that one-third of all food produced is wasted? Every year, wasted food in the UK represents 14 million tonnes of carbon dioxide emissions. In total, these greenhouse gas emissions are the same as those created by 7 million cars each year.	-clothing: Toxic chemicals, water use, and Microplastic pollution. -Technology services: Water cooling, fossil fuel, ecological waste, and mining extraction. -Food: Deforestation, Methane emission, Land use, Biodiversity loss. -Transportation: Fossil fuel	Students will start to understand that every sector contributes differently and by dragging and dropping the terms, they can visually see the hidden cost. They can start thinking that there are some actions that we can take to help the planet, such as buying second-hand clothes and food that grows locally.	
P003	Power Plant Leak	-Paper	At the power plant control room, there's an energy leak happening because some machines are still drawing power even though they're not running properly. Students have to spot the machines that are leaking phantom energy and identify the cause.	Cartoon/illustration of a power plant control room: (Lots of screens, cables, giant machines, panels.) Hidden among them: Idle monitor (showing screensaver but still on) Control panel (standby lights blinking) Security cameras (left running) Big charger station (for work tablets, plugged in but empty) Coffee machine (still plugged, tiny ON light visible)	"Look for machines that are on but not working." "Tiny lights and screens are clues!"				Great job finding the leaks! This hidden waste of energy is called Phantom Power (or Standby Power). Even when machines seem 'off,' they can still quietly drain energy unless fully unplugged or switched off.	Idle Monitor Control Panel Lights Security Cameras Charging Station Coffee Machine	Make students realize phantom power happens everywhere, not just at home. Emphasize that even a power plant needs good energy management!	Include tiny glowing lights on equipment (easy to spot with attention). Also add other idle machines that can throw them off
P004	Recycling Relay	One printed sheet with: Icons or mini drawings of different items (plastic bottle, newspaper, soda can, banana peel, old phone, glass jar, etc.). A Recycling Bins Table labeled: Plastic Paper Metal Organic E-Waste Glass Space for players to sort the items by writing which bin they go into.	The recycling center's sorting machine is broken! You need to manually sort the trash into the correct bins before the pile overflows. Match each item to the right recycling bin. Act fast — the planet is counting on you!	Items to Sort (pictures + item names): Crushed plastic bottle Old newspaper Empty soda can Banana peel Broken smartphone Glass jam jar Cardboard box Used batteries Rusty metal fork Orange peel	If you can eat it, it belongs to nature.	If it plugs in or uses batteries, it's special waste.	Shiny and metallic? There's a bin for that too.	Clear and fragile? Handle with care.	Great job! The recycling center is back on track! Remember, sorting waste correctly reduces pollution, saves energy, and gives new life to old items. Every correctly recycled object keeps our planet cleaner and greener.	Bin Items Plastic Crushed plastic bottle Paper Old newspaper, Cardboard box Metal Empty soda can, Rusty metal fork Organic Banana peel, Orange peel E-Waste Broken smartphone, Used batteries Glass Glass jam jar	Learn how to properly separate different kinds of waste. Understand the importance of e-waste recycling. Recognize that small actions help big environmental changes. Encourage critical thinking about daily disposal habits.	hide a "mystery item" (example: "Pizza box") — (Answer: It's tricky — it's contaminated paper and usually NOT recyclable unless clean.) They'll have to decide to discard it or recycle it carefully!
P005	Keep 1.5 Alive	5 Country Feature Cards 5 Problem Scenario Cards Summit Briefing Document (left) Delegates' Discussion Notes (right) Table	Welcome delegates. Following the summit, your team must identify key national challenges and align with global solutions. Decode the final action phrase to complete your mission!	Optional: Background music (ambient summit sounds, soft orchestral) to simulate conference environment	Each country's strengths are visible — but its problems are hidden in plain sight.	Only one problem card truly fits each country's hidden challenge. Don' t be fooled by surface similarities.	If the letters don't make sense, your match may be wrong. The correct alignment reveals the true message.		Congratulations, delegates! You have uncovered the summit's call to action: KEEP 1.5 ALIVE. Your teamwork has shaped a more sustainable future!	Properly matching each country card with its related problem card, and reading the hidden letters through the mask windows, to form: KEEP 1.5 ALIVE	Understand specific sustainability strengths and challenges of different countries. Recognize the global importance of limiting climate change to 1.5° C. Practice collaborative problem-solving and strategic communication.	Ensure each country card has a fixed window for decoding. Back of each problem card should include multiple scrambled characters to enhance challenge. Encourage discussion between players rather than racing through individual matches.

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P006	Water Use	6 Item Cards, A Color Wheel	From heaven's tears to your daily needs, Some choices drain more than others indeed. To unlock the secrets that I withhold, Arrange nature's thirst from large to small. Enter the order as the passphrase below.	Nothing	It flows from your tap, fills your kettle, and keeps gardens green. What precious resource should we never take for granted?	Not all colors are just pretty-they carry meaning and numbers too. What could each shade be trying to tell you?	Each item card has a color-each color has its own spot on the color wheel, and that spot holds a number. Match the color to its place on the wheel to discover how many litres of water are used!		Well done! You've unlocked the water use values - a vital step in understanding how much water goes into everyday items. Remember, water is a precious resource, and excessive use strains our rivers, lakes, and communities. By being mindful of water	Beef, Burger, Milk, Coffee, Toast, Tea	Understanding Water Footprints: Players will learn what a water footprint is and how it measures the total water used, both directly (like drinking or washing) and indirectly (like producing food and goods). Recognizing Direct vs. Virtual Water Use: They will be able to	
P007	UV Reveal	3 Mock Product Packages	Welcome to the Greenwashing Challenge! Today, you'll explore the world of eco-friendly claims and discover how some products might not be as green as they appear. Your mission is to look closely, think critically, and uncover hidden truths. Keep your eyes open-sometimes what you see		Some claims shine only under closer inspection. Maybe you need a special tool to reveal the truth!	Sometimes the truth is hidden just out of sight-try looking where shadows fall and secrets hide beneath your feet.	Look carefully at the underlined words. Once you have them, enter all the underlined words together as one continuous word-no spaces or punctuation. This will fix the component.		Congratulations! You've uncovered the hidden messages behind the 'eco-friendly' claims. Remember, not everything labeled 'green' or 'sustainable' is what it seems. Always look for real evidence, not just clever marketing, when	140SYNTHETICLIES	Critical Evaluation of Green Claims: Players will learn to question and investigate environmental claims on products, recognizing that some may be misleading or unsubstantiated (greenwashing). Awareness of Greenwashing	
P008	AI Overlord	- Computer - Lockable Box - Coded padlock - Paper with message to overide the AI	The generator is down and must be rebooted! You need to gain access to the central control server to fix the generator. The engineers have gone, but they left a note with this message - "Praise be to thought with silicon born, Swift are the answers, from dusk until morn. It listens and learns, a tireless guide, With questions it thrives, with nothing to hide. Count not the cost, just marvel and dream, For progress, like rivers, must flow in a stream - In the end, it all comes down to the cool blue water." [colours are important]	- Mock AI interface. Similar styling to dominos pizza tracker (Dom). - Periodic comments from AI in robotic voice such as "how may I help you?", "what would you like to know?"	Look beyond the words	At the end	What a beautiful blue	Sustainance for life	Congratulations! You successfuly rebooted the generator. Remember, AI is very useful, but it uses a lot of energy which we can't always see. Everytime you ask AI a question, it uses 2 liters of water.	Prompts = Water	Users will learn to be mindful of how much they are using AI and only use AI when really necessary.	
P009	Generator Chaos	- computer - 10 props representing parts for the generator - 10 tags containing the following - 1. material name, 2. source, 3. energy footprint rating, 4. keyword to enter into input field	The manager of the generator has caused chaos in an angry meltdown. The machine has a "sustainability flow circuit". You place the components in the correct places in order to resolve the chaos and fix this part of the generator.	- Artwork showing inside of the generator room with flashing red lights - Artwork showing machine technical drawings (blueprints) with 6 input slots for inputting words that are written on tags on physical props - When component correct component is put into correct position in sequence, node light turns green, if opposite, node light turns red.	The system only looks at how the part was made and where it has come from	Imported or mined? Not what we're looking to find.	To comply with the generator surcing standards, parts will need to have a low energy footprint.	1. Recycled or renewable 2. minimal energy 3. reusable and repairable	Congratulations! You have fixed this part of the generator. Remember, our buying choices are critical to the longevity of our planet and solving the climate crisis. Everytime you buy something, think about the process it has been trhough to make it and what will happen to it when you are finished with it.	**Correct Sequence:** - Recycled Aluminum Panels — Low energy, local source - Bamboo Insulation Wrap — Renewable, biodegradable - Reclaimed Copper Coil — Reused from previous machines - 3D-printed Plastic Mount — Printed on-site using biopolymer - Modular Circuit Core — Designed for disassembly and reuse - Solar-Compatible Glass Panel — High efficiency, low footprint **Incorrect Components (Decoys):** - Newly mined lithium with "fast-tracked import" - Cheap plastic housing with "single-use" tag - Unlabeled steel from unknown origin - Rare earth metal chip from overseas freight	Users will learn to think about their buying choices and the process that the things they are buying goes through before they buy it, and after they are finished with it.	