Format:

**Title**

Time/distance/money categorizations (visual, not text)

Garden points (ex: 4 garden pts)

Basic one-liner of the mission (ex: Turn 2 light bulbs off for 2 hours)

Description and “hook” paragraph

Mission and how–to paragraph (these might get sorta combined/have a varied format depending on what makes sense for each mission)

(link to) addition info of why/calculations, or link to related or follow up missions

2nd Format Idea (could fit into the tabbed thing sketched)

Title at top

Tabs – mission, sources/calculations, help/tips

Bullet pointed info – costs, time, points, CO2, etc. – bullet points are little icons indicating these categories – maybe in its own nice little box

Progress bar

Mission assignment – maybe actually very stripped down, with only the basic how-to <– more extended tips, cutesy tips, and additional blather under tips tab

Potentially a couple fast facts that don’t fit with bullet points <-this could be before mission assignment, but maybe after

Links to similar missions

|  |  |  |
| --- | --- | --- |
| **Lights Out!** | | |
| Mission | Sources/calculations | Help/tips |
| * 4 garden points * 0.37 lbs CO2 saved * $0.03 saved | | |
| Progress: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% | | |
| The Mission:  Turn off 2 light bulbs and leave them off for 2 hours.   * Any additional super awesome facts   Links to related missions (the next in the series, or companion, or alternative) | | |

More Thoughts:

Calculators for things like taking public transit instead of driving to customize to personal situations

Feature to track actual utility bills and the like and compare to estimates

Consider levels…Some things that are three part missions may cross a couple different levels

For longer missions (like year long) maybe weekly check ins to begin with, then monthly reminders, and options to tack an extra month or two to the end of the initial year to make up for times when the requirements weren’t fulfilled

Yellow highlighted text means that there is some question about the numbers or some other aspect

Introductory meadow missions (path and maybe sun or non-meadow levels)

**Lights Out!**

Probably in the sun category?

Column T in spreadsheet

<5 min/0 distance/saves money!

4 garden pts

Turn 2 light bulbs off for 2 hours

Look around your house. Do you see any lights on that you don’t need? It’s easy to leave a light on unnecessarily, but that extra energy use can really add up. The good news is this is an easy fix, and the savings can add up too! Just doing this once saves you an average of $0.03, which might not sound like much, but done every day for a year can save $9.87. If you normally leave two extra lights on 24/7, keeping them off would save you $118.47!

Your mission: This one is super easy! Find two light-bulbs around your house that don’t need to be on. Try finding a hall light, a light in a room no one is in, or an unnecessary lamp. You might even find you have one light that uses two light bulbs. All you have to do is turn both lights off and leave them off for two hours.

This is a great mission to repeat. The benefits really add up once it becomes a habit. (alternatively, this could become a multi part mission)

**Phantom Power 1**

Probably in the sun category?

Column X in spreadsheet

<5 min/0 distance/saves money!

5 garden pts

Unplug 3 electronic appliances before going to bed

Did you know that electronic appliances like televisions use power even when they’re not on? It’s easy not to realize it, but even when off these things still use a small amount of power. Energy Star estimates that “in the average home, **75% of the electricity used to power home electronics and appliances is consumed while the products are turned off**.” Just turning off 3 appliances for 10 hours one time is a small savings, just $0.03. However, if done every day for a year it adds up to $12.34, and chances are you have plenty more that can be unplugged, and lots of things that can stay unplugged for most of the day, too.

This is an easy mission. All you have to do is find 3 electronic appliances that don’t need to stay on and unplug them at night before going to bed. Look around at everything you have plugged in right now. You’ll see some things like clocks and a refrigerator which can’t be unplugged, but you’ll probably also see plenty more things that don’t need to remain plugged in if you aren’t actually using them. Try unplugging things like computers, stereos, televisions, and kitchen appliances. If the appliance is plugged into a power strip, instead of unplugging it, you can switch off the power strip.

A mission like this is best done regularly, and the **Phantom Power 2** challenge can help make it a habit!

**Phantom Power 2**

Probably in the sun category?

Column Z in spreadsheet

<5 min/0 distance/saves money!

32 garden pts

Unplug 3 electronic appliances every night for a week.

Did you know that electronic appliances like televisions use power even when they’re not on? It’s easy not to realize it, but even when off these things still use a small amount of power. Energy Star estimates that “in the average home, **75% of the electricity used to power home electronics and appliances is consumed while the products are turned off**.” This challenge is a small savings, just $0.24. However, if done for a year it adds up to $12.34, and chances are you have plenty more that can be unplugged, and lots of things that can stay unplugged for more than ten hours a day.

This takes a bit more repetition than **Phantom Power 1**, but it is still a pretty easy mission. All you have to do is find 3 electronic appliances that don’t need to stay on and unplug them at night before going to bed every night this week. Look around at everything you have plugged in right now. You’ll see some things like clocks and a refrigerator which can’t be unplugged, but you’ll probably also see plenty more things that don’t need to remain plugged in if you aren’t actually using them. Try unplugging things like computers, stereos, televisions, and kitchen appliances. If the appliance is plugged into a power strip, instead of unplugging it, you can switch off the power strip. If you choose appliances that are near each other you can make this challenge easier by plugging them into the same power strip. Then all you have to do is flip one switch!

Ready to really challenge yourself? Try the **Phantom Power 3** mission!

**Phantom Power 3**

Probably in the sun category? This might be a higher level than intro meadow b/c of the duration

Column AB in spreadsheet

<5 min/0 distance/saves money!

169 garden pts

Unplug 3 electronic appliances for 10 hours every day for a year.

Did you know that electronic appliances like televisions use power even when they’re not on? It’s easy not to realize it, but even when off these things still use a small amount of power. Energy Star estimates that “in the average home, **75% of the electricity used to power home electronics and appliances is consumed while the products are turned off**.” This challenge adds up to a savings of $12.34, and chances are you have plenty more that can be unplugged, and lots of things that can stay unplugged for more than ten hours a day.

This mission will take dedication until it becomes a habit, then it will be easy! Just like in Phantom Power 1 & 2, all you have to do is find 3 electronic appliances that don’t need to stay on and unplug them every night, but this time for a full year. Look around at everything you have plugged in right now. You’ll see some things like clocks and a refrigerator which can’t be unplugged, but you’ll probably also see plenty more things that don’t need to remain plugged in if you aren’t actually using them. Try unplugging things like computers, stereos, televisions, and kitchen appliances. If the appliance is plugged into a power strip, instead of unplugging it, you can switch off the power strip. . If you choose appliances that are near each other you can plug them into the same power strip. This is a great way to make this challenge easier and important to make it easy to stick to; all you have to do is flip one switch!

**Turn Off the Computer 1 <- could use a more clever name**

pathway

Column AD in excel

<5 min/0 distance/saves money

1 garden point

Turn off your computer and monitor at night.

Leaving a computer on all night might save a minute of start up time when you next use it, but it wastes energy and costs you money! A computer in standby mode uses more than twice the power a computer that has been left off uses. Turning your computer all the way off for 10 hours will save you about $0.04 a night. This is small saving when only done once, but could add up to $14.40 over a year, or more if you have more than one home computer, or if you also turn it off when you are gone during the day.

This is an easy mission! All you have to do is shut down your computer before going to bed at night, instead of putting it in to “sleep” mode or leaving it on. If you have a desktop computer, also be sure to turn off your monitor.

This mission is something that is most effective when it becomes a habit. Try **Turn Off Your Computer 2** to continue this challenge!

This mission doesn’t completely eliminate a computer’s power consumption. It has to be unplugged for that. Try **Phantom Power 1** for a companion mission about this.

**Turn Off the Computer 2 <- could use a more clever name**

Sun level?

Column AD in excel

<5 min/0 distance/saves money

4 garden points (when done once/for a week/for a year)

Turn off your computer and monitor at night every night for a week.

Leaving a computer on all night might save a minute of start up time when you next use it, but it wastes energy and costs you money! A computer in standby mode uses more than twice the power a computer that has been left off uses. Turning your computer all the way off for 10 hours every night for a week will save you about $0.28. This is small saving when only done once, but could add up to $14.40 over a year. This could add up to more if you have more than one home computer, or if you also turn it off when you are gone during the day.

This is an easy mission like **Turn Off Your Computer 1**, you just have to remember for a week! All you have to do is shut down your computer before going to bed every night for a week instead of putting it in to “sleep” mode or leaving it on. If you have a desktop computer, also be sure to turn off your monitor.

This mission is something that is most effective when it becomes a habit. Try **Turn Off Your Computer 3** to continue this challenge!

This mission doesn’t completely eliminate a computer’s power consumption. It has to be unplugged for that. Try **Phantom Power 2** for a companion mission about this.

**Turn Off the Computer 3 <- could use a more clever name**

Sun in meadow category? Or a non intro meadow level

Column AD in excel

<5 min/0 distance/saves money

197 garden points (when done once/for a week/for a year)

Turn off your computer and monitor every night for a year.

Leaving a computer on all night might save a minute of start up time when you next use it, but it wastes energy and costs you money! A computer in standby mode uses more than twice the power a computer that has been left off uses. Turning your computer all the way off for 10 hours every night for a year will save you about $14.40. You could save more if you have more than one home computer, or if you also turn it off when you are gone during the day.

This mission will take more dedication to stick to for a year, but it will be easy once it becomes a habit! Just like in **Turn Off Your Computer 1 & 2**, all you have to do is shut down your computer before going to bed at night instead of putting it in to “sleep” mode or leaving it on. If you have a desktop computer, also be sure to turn off your monitor.

This mission doesn’t completely eliminate a computer’s power consumption. It has to be unplugged for that. Try **Phantom Power 3** for a companion mission about this.

**Cool It! 1**

Intro section, path or sun

AR column in excel

<5/0 distance/saves money

94 garden points

Turn your thermostat down 4 degrees this week.

Nearly a third of the energy used by the average household is for heating. Even a small change to the can make a big difference in how much energy you use. Just one week at a lower temperature can save about $6.86. Over the course of a month, it could save you almost $30!

This is an easy mission, just turn your thermostat down 4 degrees from its normal setting and keep it that way for a week. It might seem a bit chilly at first, but it’s a great reason to wear your favorite comfy sweater and fuzzy slippers, or warm up with a mug of your favorite hot beverage!

Is it the middle of summer? Try **Household Warming 1** for a mission to turn your heating down instead!

Is this challenge leaving you a bit too chilly? Try **Some version of this that’s only 2 degrees** to start with a milder change.

**Cool It! 2**

Intro section, sun or what have you/secondary energy saving level

AT column in excel

<5/0 distance/saves money

2030 garden points

Turn your thermostat down 4 degrees this winter.

Nearly a third of the energy used by the average household is for heating. Even a small change to the can make a big difference in how much energy you use. Over the entire winter, this could save you an average of $148.59!

This is an easy mission like **Cool It! 1**, only longer. Just turn your thermostat down 4 degrees from its normal setting, and keep it that way all winter. It might seem a bit chilly at first, but it’s a great reason to wear your favorite comfy sweater and fuzzy slippers, or warm up with a mug of your favorite hot beverage!

Is it the middle of summer? Try **Household Warming 1** for a mission to turn the temperature up instead!

Is this mission leaving you a bit too chilly? Try **Some version of this that’s only 2 degrees** to start with a milder change.

**Household Warming 1**

AV column in excel

Intro path category

<5 min/0 distance/saves money

35 garden points

Turn your thermostat up 4 degrees this week.

In the average household, about 17% of the energy use goes to cooling. Turning down the air conditioning during the summer can save a lot of energy. Turning the thermostat up 4 degrees when air conditioning is being used saves an average of $2.54 a week, or about $10.89 a month.

This is an easy mission, just turn your thermostat 4 degrees higher than normal and keep it that way for a week. Try limiting the heat by closing curtains to block direct sunlight, or cool down with a cold drink.

Is it the middle of winter? If you are using heating instead of air conditioning, try **Cool It! 1** for a mission to turn the thermostat down instead!

Is this mission leaving you way too hot? Try **Some version of this that’s only 2 degrees** to start with a milder change.

**Household Warming 2**

AX column in excel

Intro sun category?/secondard level of some sort?

<5 min/0 distance/saves money

451 garden points

Turn your thermostat up 4 degrees for the entire summer.

In the average household, about 17% of the energy use goes to cooling. Turning down the air conditioning during the summer can save a lot of energy. Turning the thermostat up 4 degrees when air conditioning is being used saves an average of $33.02 over a full summer.

This is an easy mission, just turn your thermostat 4 degrees higher than normal and keep it that way al summer. Try limiting the heat by closing curtains to block direct sunlight, or cool down with a cold drink.

Is it the middle of winter? If you are using heating instead of air conditioning, try **Cool It! 1** for a mission to turn the thermostat down instead!

Is this mission leaving you way too hot? Try **Some version of this that’s only 2 degrees** to start with a milder change.

**Cold Wash**

Pathway probably, though consider levels to this one. Maybe a couple weeks, or 5 loads of laundry or number. Do things like this prompt people periodically and autocomplete after a year? Do people do monthly status updates?

AH column in excel

<5 min/0 distance/saves money

820 garden points

Wash your clothes with cold water.

Heating up water takes a lot of energy. Most of the time cold water can get your clothing just as clean! According to ENERGY STAR, “Hot water heating accounts for about 90 percent of the energy your machine uses to wash clothes - only 10 percent goes to electricity used by the washer motor.” Using cold water can save more than $40 a year in the average household.

This is an easy mission! All you have to do is set your washing machine to “cold” when you do your next load of laundry, and continue to use cold water whenever possible for the next year.

**Hot, Hot Water!**

Pathway? Sun? Maybe a particular category for introductory things like this that only take a quick one time thing, but need to be continued for a year (though don’t require much maintenance challenge) Maybe they ask for a progress report/send a reminder monthly, you get some sort of status bar that keeps slowly filling and completes after a year if you keep with the good updates? Consecutive versus non-consecutive? It’s an honor system, and people who stick to that don’t want to get discouraged by having to constantly restart things over brief lapses. That wouldn’t be encouraged presumably, but the line between consecutive/non consecutive how much leeway people should be encouraged to allow should be considered.

AJ column n excel

<5 min/0 distance/saves money

492 garden points

Lower the temperature of your water.

ENERGY STAR has some good info – need to know more about Isaac’s sources/calculations – does he mean assume changing it from 130 to a mystery number, or assume changing it to 130 from 140 or something?

Secondary Level Stuff

**Take the Bus!**

Some sort of secondary level since it requires more than super basic household stuff – also another one that can have multiple levels

AL column in excel

30min – 2 hrs/1-20 miles/$0.50-$5 ish, though compared to car costs probably saves money

Varied garden points – avg. at 41 based on 16 mile commute, but actually a range – calculator would be super awesome here

Take the bus to work every day this week.

Gasoline use in personal vehicles is a major portion of CO2 emissions. Using public transportation can be a great way to cut down on how much gasoline you use! On average, this saves 2.12 gallons, and $4.76 a week. Over a year this can add up to about $247.52, or very likely more depending on the price of gas and bus fare, and parking costs that might be avoided.

This mission requires some planning! The goal of the mission is to commute to and from work or school by bus every day for a week. Most public transit services have information about schedules, routes and fares available online. Many even have trip planning features to help you plan. It may take some getting used to the first time or two you take the bus, but it doesn’t take long to get the hang of it. Riding the bus can give you a chance to read, eliminate the need to find parking, and in some cases shorten commutes!

Do you live somewhere that busing isn’t an option? Give **Ride Your Bike!**, **Take the Train!**, or **Walk!** a try instead.

**Take the Train!**

Some sort of secondary level since it requires more than super basic household stuff – also another one that can have multiple levels

AP column in excel

30min – 2 hrs/1-20 miles/$0.50-$5 ish, though compared to car costs probably saves money

Varied garden points – avg. at 91 based on 16 mile commute, but actually a range – calculator would be super awesome here

Take mass transit to work every day this week.

Gasoline use in personal vehicles is a major portion of CO2 emissions. Using mass transit can be a great way to cut down on how much gasoline you use! On average, this saves 2.66 gallons, and $10.48 a week. Over a year this can add up to about $544.96, or very likely more depending on the price of gas and train fare, and parking costs that might be avoided.

This mission requires some planning! The goal of the mission is to commute to and from work or school by mass transit every day for a week. Most public transit services have information about schedules, stops and fares available online. Many even have trip planning features to help you plan. It may take some getting used to the first time or two you take the train, but it doesn’t take long to get the hang of it. Riding the train can give you a chance to read, eliminate the need to find parking, and in some cases shorten commutes!

Do you live somewhere that mass transit isn’t an option? Give **Ride Your Bike!**, **Take the Bus!**, or **Walk!** a try instead.

**Ride Your Bike!**

Some sort of secondary level since it requires more than super basic household stuff – also another one that can have multiple levels

AN column in excel

10min – 2 hrs/1-20 miles/$0.50-$5 ish, though compared to car costs probably saves money

Varied garden points – avg. at 37 based on 4 mile commute, but actually a range – calculator would be super awesome here

Ride your bike to work every day this week.

Gasoline use in personal vehicles is a major portion of CO2 emissions. Riding a bike can be a great way to cut down on how much gasoline you use! On average, this saves 1.79 gallons, and $4.02 a week. Over a year this can add up to about $209.04, or very likely more depending on the price of gas and parking costs that might be avoided.

This mission requires some planning! The goal of the mission is to commute to and from work or school by bicycle every day for a week. You may need to take time to plan out a route ahead of time, and of course safety is important. There are websites to help plan routes and give advice for getting started with commuting by bicycle. In addition to saving gas and money, riding a bike is great exercise!

Do you not have a bike or live somewhere that biking isn’t an option? Give **Take the Bus!**, **Take the Train!**, or **Walk!** a try instead.

**Carpool**

Some sort of secondary level since it requires more than super basic household stuff – also another one that can have multiple levels

P column in excel

30minish extra daily?/1-20 miles/saves money

Varied garden points – avg. at 514 based on 16 mile commute, but actually a range – calculator would be super awesome here

Carpool to work every day for a month.

Gasoline use in personal vehicles is a major portion of CO2 emissions. Carpooling can be a great way to cut down on how much gasoline you use! On average, this saves 25 gallons, and $56.25 a month. Over a year this can add up to about $675, or very likely more depending on the price of gas, and parking costs that might be avoided.

This mission requires some coordination! The goal of the mission is to carpool to and from work or school every day for a month.

Carpooling not an option? Give **Ride Your Bike!**, **Take the Bus!**, **Take the Train!**, or **Walk!** a try instead.

**Install Compact Fluorescent Light Bulbs**

Beginning light level thing or intro meadow level?

V column in excel

30min/a few miles/overall save money

270 garden points

Replace 2 light bulbs with compact fluorescent light bulbs

Replacing old light bulbs with compact fluorescent light bulbs (CFLs) is an easy way to save energy. They cost a little more than standards incandescent light bulbs initially, but they last up to 10 times longer and, because they use less energy, over the course of a year two CFL’s will save $19.75 on average.

May have multiple versions of this, or make it repeatable and maybe do it by one bulb, so that people can replace bulbs as they burn out. There could also be a mission to complete this one 3 times, or to replace all light bulbs this way. Also the standard question: “is it better to replace immediately with the more efficient thing, or better to wait and replace once the other is no longer working?”

List of Current Missions:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Missions** | **General Categories** | **Time (full span)** | **Time (total effort)** | **Time (daily)** | **Expenses (initial/total)** | **Savings** |
| Lights Out! | -carbon output  -household  -easy  -immediate/minimal preparation (1) | 2hrs | <5min | <5min | $0 |  |
| Phantom Power 1, 2, & 3 | -carbon output  -household  -easy (1)  -immediate/minimal preparation (1)  -low to moderate challenge (2)  -moderate challenge (3)  -ongoing effort (2, 3) | 1 day(10 hrs)/7 days/ 365 days | <5min/ <30min/ <10hrs(?) | <5min | $0 |  |
| Turn Off the Computer 1, 2, & 3 | -carbon output  -household  -easy (1)  -immediate/minimal preparation (1)  -low to moderate challenge (2)  -moderate challenge (3)  -ongoing effort (2, 3) | 1 day(10 hrs)/7 days/ 365 days | <5min/ <30min/ <10hrs(?) | <5min | $0 |  |
| Cool It! 1 & 2 | -carbon output  -household  -easy (1)  -low to moderate challenge (2)  -immediate/minimal preparation  -ongoing effort | 7 days/3 months(90 days) | <5min/ <30min | <5min | $0 |  |
| Household Warming 1 & 2 | -carbon output  -household  -easy (1)  -low to moderate challenge (2)  -immediate/minimal preparation  -ongoing effort | 7 days/3 months(90 days) | <5min/ <30min | <5min | $0 |  |
| Take the Bus! | -carbon output  -transportation  -moderate challenge  -some planning  -ongoing effort | 7 days | <10hrs | <2hrs |  |  |
| Take the Train! | -carbon output  -transportation  -moderate challenge  -some planning  -ongoing effort | 7 days | <10hrs | <2hrs |  |  |
| Ride Your Bike! | -carbon output  -transportation  -moderate challenge  -some planning  -ongoing effort | 7 days | <10hrs | <2hrs |  |  |
| Carpool | -carbon output  -transportation  -social  -moderate challenge  -some planning  -ongoing effort | 7 days | <10hrs | <2hrs |  |  |
| Install Compact Fluorescent Light Bulbs | -carbon output  -household  -low to moderate challenge  -some planning | <2hrs | <2hrs | <2hrs |  |  |
| Cold Wash | -carbon output  -household  -easy  -immediate/ minimal preparation |  |  |  |  |  |
| Hot, Hot Water! | -carbon output  -household  -easy  -immediate/ minimal preparation |  |  |  |  |  |

Time: maybe both the overall time span and avg. daily time

Ex: phantom power 2 – 1 week/7 days, <5min daily

Categories (carbon, water, waste):

Carbon output - make a distinction between household electricity use and gas consumption?

Water – need some basic water saving missions

Waste – need some basic waste missions (recycle, stop junk mail, etc.)

Categories (type, location): transportation, household, maybe a category or subcategory if it involves an extra errand, like the need to buy light bulbs for the install CFLs mission, which is generally a household mission

Challenge level:

Maybe numbered 1 through 5 or something? I found that easy/medium/hard seems too broad. For example, Lights Out! Is very easy, phantom power 1 is also pretty easy, but isn’t as quick. If both were just listed as “easy,” that would make phantom power 2 a “medium” mission and phantom power 3 a “hard” mission. This seems to general and though the length of phantom power 3 would be fairly challenging, there are going to be harder things.

Things with repeated effort will affect the challenge level, and could potentially be noted. A lot of this is self explanatory though, so it might not need to be specifically noted in the mission description.

Ex: lights out! is a one time challenge; phantom power 2 requires repeated daily effort to turn things on and off; cold wash requires that you set your laundry machine to use cold water for a week(?), which is a sustained challenge but doesn’t necessarily require daily effort; and carpool will require daily effort and more effort to plan it initially

List/take into consideration whether things can be done immediately without preparation (like lights out!) or if planning or an errand is involved (like carpool or compact fluorescent lightbulbs)