

Highly Commended

Programming, Apps & Robotics Year 5-6

Orlando Spiliopoulos

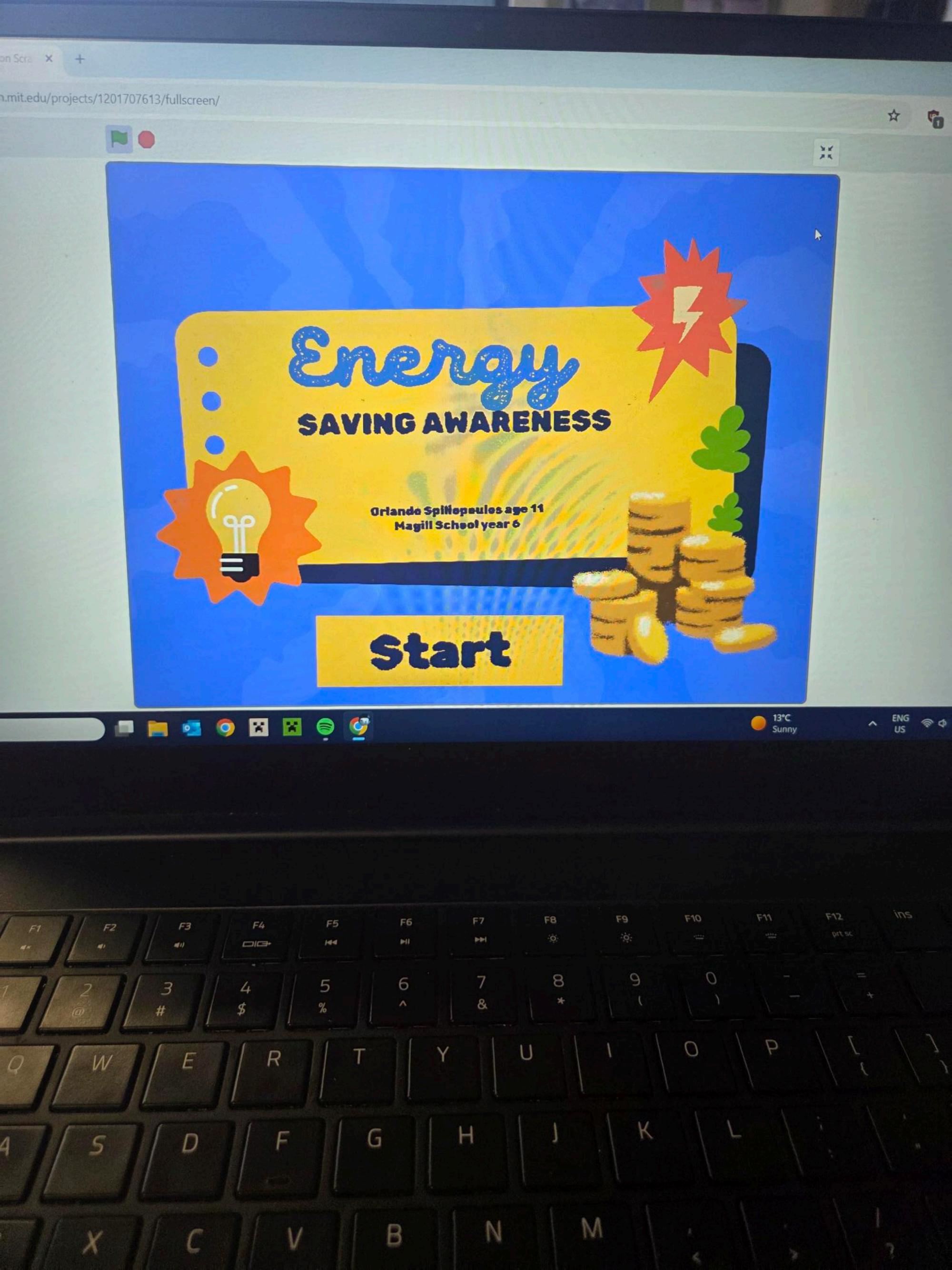
Magill School



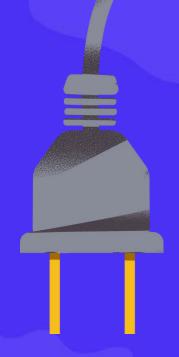








"YOU HAVE THE POWER TO SAVE THE POWER." SAVING AWARENESS Orlando Spiliopoulos age 11 Magill School year 6



Aim of the entry



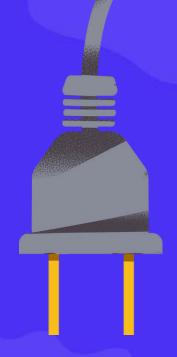
I did this project to create awareness of the benefits of solar and to remind people to save energy. I am hoping this project will be used by junior primary students. This is why I had to make my program fun, bright, exciting and engaging.

Don't forget -

"YOU HAVE THE POWER TO SAVE THE POWER."

And... for extra fun, see if you can find this image on each page of this document.

Go on, accept this challenge!

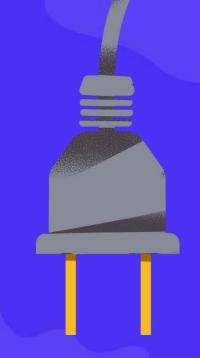


Running the program



If you have a internet connection and a web browser and google chrome. My game is written on a scratch which you access through a web page. You can access it on a laptop, computer, macbook, chrome or an android device. But for the mobile phone users, I would recommend playing on a desktop or laptop because it has bigger screen and a keyboard which is easier to play with.





Inatructiona



Press the Start button to start, you will get sent into an area where you need to last the longest amount with the least amount of solar used. You still need to use things to complete chores. Use the left and right arrow keys to walk or use a and d.

Get extra points by answering quiz questions correctly in a short time and by making smart choices to save energy.

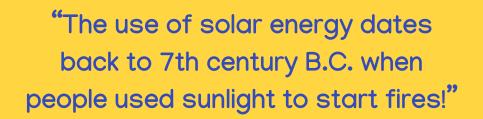




https://sungroupenergy.com.au/2024/10/02/fun-solar-panel-facts/

Did we know the





"Solar energy is one of the fastestgrowing renewable energy sources in the world. New solar panels are being installed all the time."

"There are many fun solarpowered gadgets like solarpowered backpacks, chargers for
mobile phones, and even solarpowered toys."

"The word 'energy' is derived from ancient Greece."

"Solar energy doesn't produce pollution or greenhouse gases, making it one of the cleanest ways to generate electricity." "All of SA's power came from solar for one hour on October 11th 2020 which according to the Australian Energy Market Operator, this is a world-first solar record"

Getentra points by making amort insurance and a power rosers.

- Turn off the lights when your not in the room
- When you change your appliances make sure you check the energy stars
- Try to only turn on things when you need it
- Use curtains and blinds and have double glazed windows and doors to help keep heat in or out of the house
- Wear an Oodie or use a blanket on the couch instead of turning on the heater
- Install solar panels
- See if you can run your washing on sunnier days
- Remind others in your family to turn things off when they don't need it
- Have a warm quick shower and hop straight into bed and you'll be warm and toasty



Code Snipa

"YOU HAVE THE POWER TO SAVE THE POWER."



This is the washing machine base, I had to put it into a separate sprite because if I put it in the drum of the washing machine it would start spinning with the drum. Whereas if I put it with the button if the base was clicked it would stop the drum spinning.

```
when set y to 30

forever

set size to 377 %

if Scroll X < -1276 or Scroll X > -688 then

hide

hide

set x to Scroll X

set x to Scroll X
```

This is the drum, this is the code for it to spin and to stop spinning on command.

```
when I receive Start v

torever

If not costume number v v v

If Scroll X < 1264 or Scroll X > 704 then

hide

else

throw

forever

If not costume number v v v

If not costume number v

If not costume number v

If not not number v

I
```

This is a diagram of the button, it sends a message called "Washing Machine Off" which signals the drum to stop spinning, it also has a nice glow effect that signals to the player that it is interactable.

```
when I receive Start 
show
forever

If touching mouse-pointer ? then
set brightness effect to 50
play sound clicking-interface-select-201946 until done
set volume to 0 %
when clicked
else
set volume to 100 %
set size to 377 %
hide

If Scroll X < -1270 or Scroll X > -758 then
hide
else
show

If touching mouse-pointer ? and mouse down?

If touching mouse-pointer ? and mouse down?
```

This is a diagram of the laundry, it has an iron, 2 lights and a washing machine.



We put in solar panels last year and have been watching our energy usage a lot because as a family we are trying to get 100% solar/battery energy instead of the grid. That sparked a idea in my brain and I came up with the idea for the game. I did all the programming myself, but I got ideas from YouTube to make the custom block tool to make my code efficient/quicker to write and also for the scrolling background. It's quite simple and I know how to do it off by heart now.

Canva had a really engaging slide deck template with lots of cool animations and I really like the bright colours. I used the template for this report but then I tweaked it.

My brothers have tested my game and provided feedback for improving. (they used to use scratch a lot.) My parents helped remind me what the requirements are for the project.



Bibliography

https://www.slidescarnival.com/template/energy-saving-awareness-slides/220795

https://www.campbelltown.sa.gov.au/community/environment/be-part-of-the-climate-solution/reduce-energy-use-at-home

https://tenor.com/en-GB/view/agenturleben-hannover-agencylife-kochstrasse-kstr-gif-20250632

https://images.app.goo.gl/Ar6zrHvKNiVegsST6

https://images.app.goo.gl/z3WMs9YJJtTTYkBBA

https://pixabay.com/sound-effects/search/buzzing/

https://www.abc.net.au/news/2024-03-03/what-household-appliances-use-most-electricity/103453326

https://images.app.goo.gl/cPq6MEYnuYCsMQhK7

https://www.youtube.com/watch?v=NN7B5UxZQ6I

https://www.abc.net.au/news/2020-10-25/all-sa-power-from-solar-for-first-time/12810366

https://www.abc.net.au/news/2024-03-03/what-household-appliances-use-most-electricity/103453326

https://blackstonepower.com.au/pages/appliances-power-output-how-much-power-does-user

"YOU HAVE THE POWER TO SAVE THE POWER."

Did you find all of the "YOU HAVE THE POWER TO SAVE THE POWER images?...

If you did CONGRATULATIONS!!! Now lets go save some energy:D