SASTA OLIPHANT SCIENCE AWARDS

SOUTH AUSTRALIAN SCIENCE TEACHERS ASSOCIATION

Prize Winner

Programming, Apps & Robotics

Year 5-6

Dominic Esposito

St Joseph's School - Hectorville

ROWE SCIENTIFIC PTY. LTD. www.rowe.com.au

Australian Government Department of Defence

Government of South Australia Department for Education

SASTA South Australian Science Teachers Association

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Sat 26 Jul

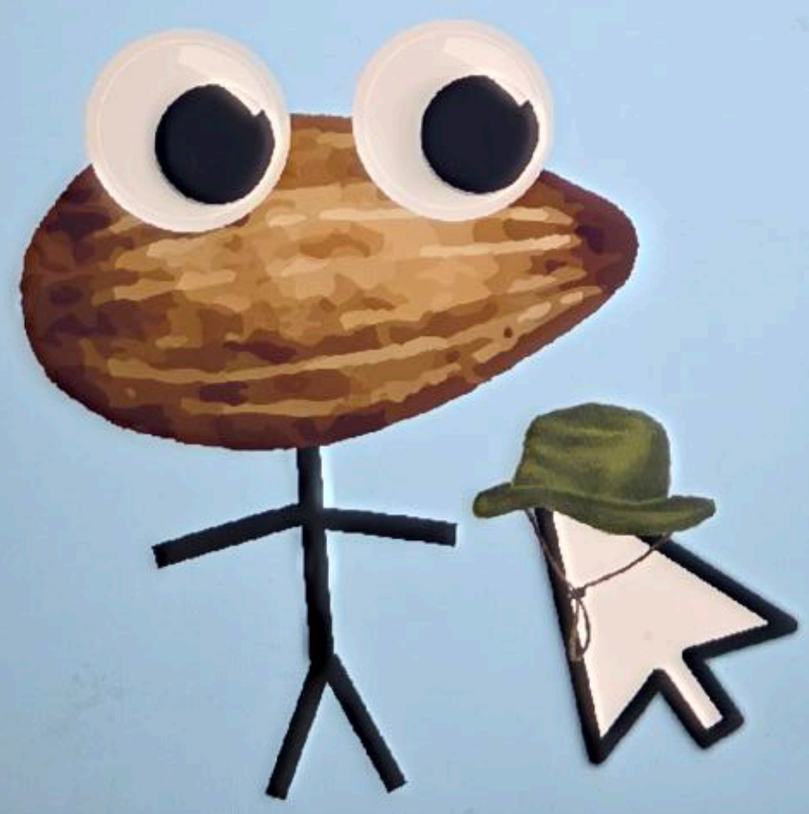
adventure - oliphant sc

scratch.mit.edu/projects/1187191182/fullscreen/

Click The Screen To Start

SEED ADVENTURE

The Journey of a Seed



Programming, Apps & Robotics Written Report by Dominic Esposito

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The aim of the entry, and its scientific purpose and potential applications

The point of this app is to teach people about the journey of a apple seed. The journey takes the seed from the inside of a fallen apple, to a new apple tree. The scientific purpose of this program is to show people how a single little seed smaller than a centimetre, can transform into a 5-10 meter tree full of fresh red apples. This seed goes through various challenges and different stages in its growth like, germination, photosynthesis, and more. This project can be used as a fun game for kids of all ages to use in classrooms to better understand the journey of a seed and also have fun. The animations and games are fun and the games are based on a level where all kids could try use it and succeed.

The type of robot or computer/device required to run the program

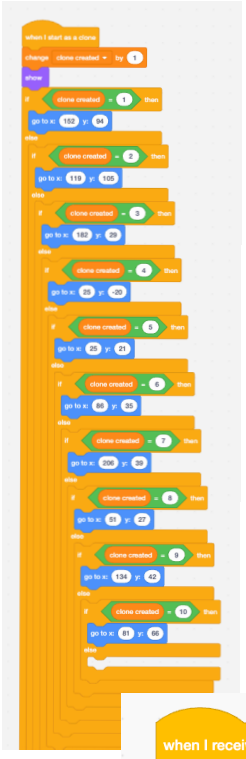
Just any laptop with a web browser (Chrome or Safari)

Clear instructions on loading or using the entry

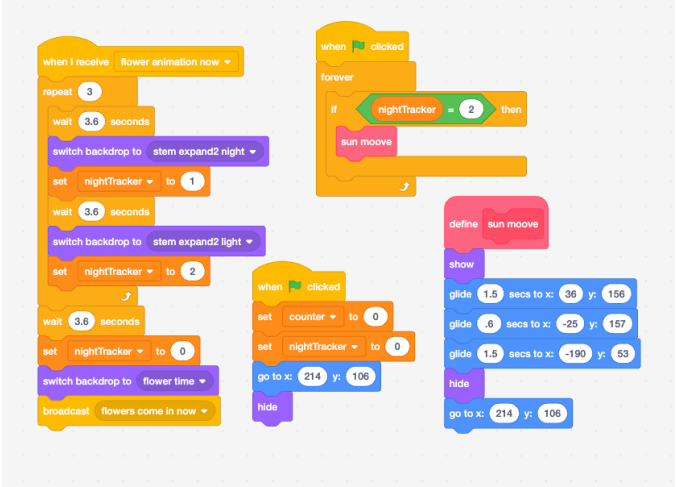
Just click on the Scratch link and follow the instructions 😀

https://scratch.mit.edu/projects/1187191182/

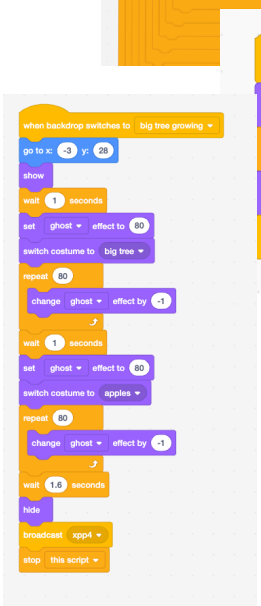
A hard copy of the program and an explanation of what the sections of the program do

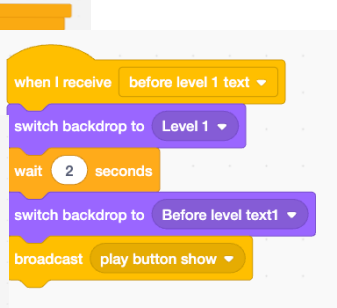


- This code is my random code for The pollen to go to a random spot For level 4.



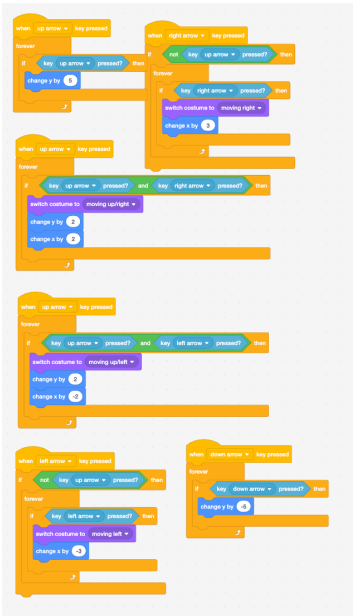
- This is my Timelapse code for the process of flowers growing.





- This code is the animation for the apple tree to grow into a big apple tree.

- This is one of my many basic backdrop codes, making the backdrop switch



- This is my movement code for the bee in the level 4 Pollen game.

Acknowledgment of any external support provided to the entry

My dad helped me learn about the process of the apple seed and every day I showed him what I did on my game and I always got feedback from him. This feedback encouraged me to keep going and every time there was something that would not work, he would tell me to go code something else or stop coding for a hour or so, and clear my mind so that next time I can do it. The gifted and talented teacher, Mr Do, helped me re learn how to do a code that I had forgotten and he showed me how to do a simpler version to help me finish a code without giving me the answer.

A bibliography that acknowledges relevant sources of information.

- Youtube for videos of an apple growing and information about apple trees.
- Google Search Images for the life cycles of trees, and seeds.
- Chat GPT for a better understanding of how the seed grows.