

uLearn Naturally High Altitude Balloon Project



Organisation Overview

uLearn Naturally Learners' Co-op is administered by Abundance Centres (UK) Development Trust an educational umbrella organisation. Our learners' cooperative is focused on the advancement of STEAM learning, that's STEM + the Arts. We are based at the Chestnuts Community Centre (N15 5BN).

From here we develop and administer programmes of STEAM engagement:

Level Being 9 - uLearn Naturally GCSE Maths - Preparations for Mastery

<https://www.abundancecentre.org/level-being-9---preparations-for-mastery.html>

uLearn Naturally Community Built Pop-up Planetarium (iSphere)

- example of past STEAM project - community testimonials: https://youtu.be/t_wvQRukZ-Q?t=3

As an umbrella organisation our mission is to develop "[centres of determined learning](#)" to create community led infrastructure that allows learning processes and networks to work in more innovative and effective ways thereby raising learning outcomes and impacts.



To support the resilience of our works we have established uLearn Naturally Media Services, there are two main media service operations (<https://futuriststeam.co.uk/>) :

- 1) uLearn Naturally Radio - (internet radio)
- 2) The Futurist - STEAM'd uP3 magazines and publications (localised, in-print and digital)

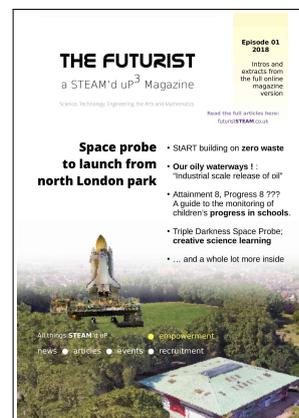


THE FUTURIST
a STEAM'd uP³ Magazine
Science, Technology, Engineering, the Arts and Mathematics

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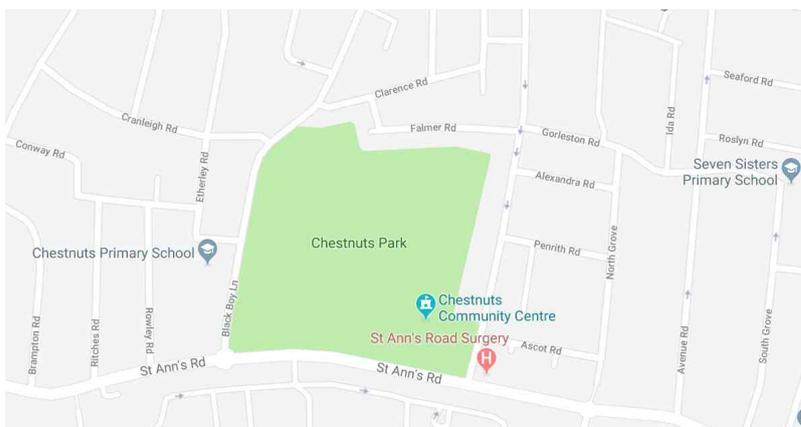
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Project Overview:

As a learners' cooperative we have decided to join in the **Global Space Balloon Challenge (GSBC)**, "the high altitude balloon event for everyone, everywhere, together"; <https://www.balloonchallenge.org/>

Our team of young cadets (5-19y), their families and our local college work placements have reviewed the comprehensive tutorials and guidance provided by GSBC. We were first inspired by this video: <https://youtu.be/3y0nHhFGXDo>. On the basis of our preparations we have prepared the way for this overview and a more detailed project plan.



Launch Site:

We intend to launch from the **Chestnuts Park**, in which the Chestnuts Community Centre is based: Chestnuts Community Centre, 280 St Ann's Road, London **N15 5BN**

Launch Date:

The Global Space Balloon Challenge is from April 5-29, 2019. We are aiming to launch on a **Saturday, 6th, 13th, 20th or 27th April 2019**

Recovery:

We have been using various flight predictor programmes and have again a clear sense of the broad range the HAB might travel. **Using GPS we will track the HAB** and use this as the primary means of locating the landing point for recovery.

Balloon

We have determined that we should use a balloon the **size of 600g** and it will be **made out of latex or a synthetic rubber**. Our balloon will be inflated with **helium**.

Payloads:

We have determined to have **two closely bound payloads**. Payload 1 will contain a *camera, GPS tracker, sensors for recording temperature, pressure, and other atmospheric data of the lower stratosphere*. Payload 2 will contain a simple experiment to test the effects of the lower stratosphere on basic battery performance.

Other parts of the HAB equipment:

Our HAB will be equipped with a *parachute*, a *radar reflector*, a *flight terminator unit* (for *maximum rising height of 27kms*) and will be bound with various regularly compliant cords and connectors.

Building community engagement (in STEM + the Arts):

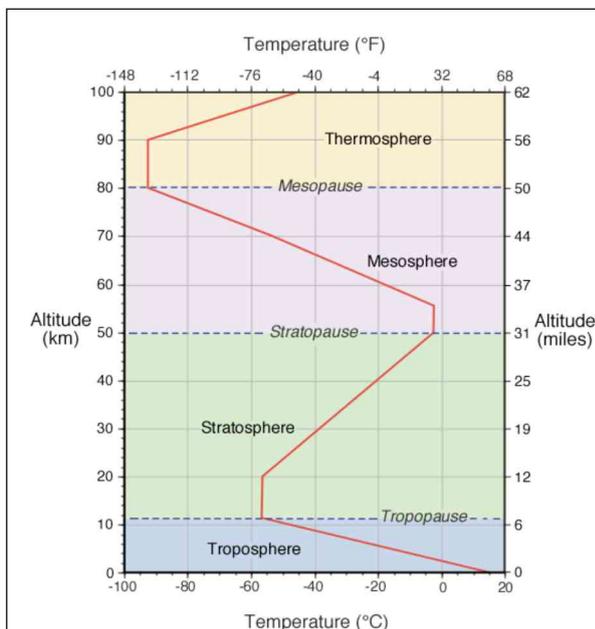
In addition to our direct learner co-op members we will market our HAB project to the broader community, we are developing specific tactics to engage the following prospective stakeholders in to our STEAM project:

- Primary school
- Secondary school
- Parents
- Local people (Tottenham / Haringey)
- S.T.E.A.M and enthusiasts
- Teachers and educators
- College/further education students
- Remote viewers

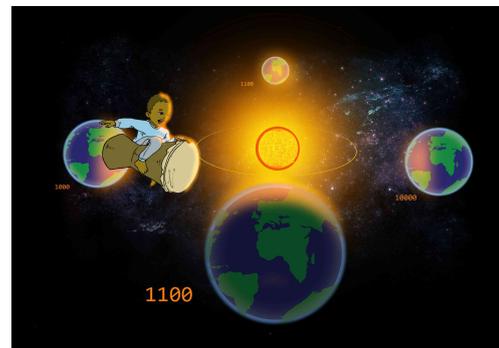
abundance in Schools:

<https://www.abundancecentre.org/inschools.html>

Workshops on this and other STEAM themes can be commissioned by schools, colleges and other organisations.



STEM
+Art
STEAM



Quality total budget estimations have been made and funding is being secured. Contact Astehmari for more details, please do pledge support and make donations.

Our project is also following the guidance of the UK High Altitude Society (UKHAS) from this webpage (<https://ukhas.org.uk/guides:faq>) we have reviewed the basic administration form from the Civil Aviation Authority (CAA) and we have now directly contacted the staff of the CAA for final clarifications and approval.

For more info please contact:

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Also presentations will be made at our next Dark & Wild social gathering: 16th Feb 2019: <https://www.abundancecentre.org/socialgathering>

