

Stephen Hawking Challenge



“The number 1 celebrity scientist!”

With a great sense of humour and an enormous amount of determination Stephen Hawking helped us all to understand a little more about the universe.

For even more programme ideas check out our ‘Stephen Hawking’ board over on www.Pinterest.com/PawprintFamily

#AdventureForAll
www.PawprintFamily.com

Meet the FAMILY

Hi there! We're Charlotte & Jamie, the husband and wife team behind the Pawprint Family and we believe in #AdventureForAll.

It's our mission to help leaders, teachers and parents save time by providing ideas and opportunities to help them deliver everyday adventure and skills for life. We do this through our family of brands; find out more below and head to the website for your next adventure!



PAWPRINT BADGES

Pawprint Badges provides thousands of free activity ideas and resources to help leaders, teachers and parents deliver fun and adventure.

Every activity helps you share skills for life and is linked to one of our pawesome embroidered badges. Build your collection and celebrate adventures, new skills and knowledge gained.

PAWPRINT TRAILS

Pawprint Trails are treasure-hunt style walks around locations in the UK. Solve puzzles, track down the answers and explore everything our great country has to offer.

From historical sights to popular culture discover something new or rediscover a love for where you live then collect the badge to remember your adventures!

Whether you're looking for the perfect addition to your next family holiday or a few hours of fun with friends; each trail can be completed in a few hours or extended with our activity suggestions in to a weekend or a week's worth of fun!

PAWPRINT TALES

Pawprint Tales are fully illustrated stories that can be enjoyed by the whole family. Join Alfie (our fox-red Labrador) on his adventures around the UK – solving puzzles, turning detective and making new friends. With twists and turns, every tale is an opportunity to discover new places, people and history without needing to leave the comfort of your own home.

Enjoy Pawprint Tales alongside your Pawprint Trails or as a standalone adventure!

PAWPRINT TRUST

Every brand in the Pawprint Family supports the Pawprint Trust with a percentage of profits from every sale providing grants to young people. We're passionate about enabling young people to access life changing adventures.

Share your adventures and join us over on our social channels for even more adventures and a nosy behind the scenes at Pawprint HQ!



@pawprintfamily



@pawprint_family

PAWPRINT BADGES

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www.pawprintfamily.com/terms-conditions



Craft

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Stephen Hawking guest-starred three times on The Simpsons TV show. Turn yourself in to a Simpsons character and have a go at illustration.



Make boats and have a boat race of your own.

Why?

Stephen Hawking was once the coxswain of the Oxford University rowing crew during his time studying there, before he was diagnosed with amyotrophic lateral sclerosis (ALS).



Build a model of the solar system. Hawking was born on 8th January 1942, exactly 300 years after the death of 'the father of observational astronomy', Galileo Galilei. Later he became a member of the Institute of Astronomy at Cambridge University.



Make your own rocket; Stephen was invited to travel on Richard Branson's first space flight but sadly never got the chance to fly in space.



Create your own black hole at home with a balloon and tin foil experiment.

How?

Inflate a balloon and wrap it in at least two layers of aluminum foil, this is your star. When you press gently on the balloon you will feel resistance, this is like the balance between gravity and fusion energy created at the core of the star. Gently pop your balloon trying not to crush the foil, this is the end of your star's life when it runs out of fuel. Gradually crush the foil making it smaller a little at a time, measuring and weighing it at different points before squashing the ball as much as you can and weighing and measuring one final time. You will see that although the star decreased in size the mass stayed the same, much like when a star collapses in to a black hole.



"It matters that you don't just give up...there is always something you can do to succeed at." Stephen Hawking was an inspirational man; turn one of his quotes in to a piece of art or a poster.



Make your own apple ornament; Stephen Hawking received a small glass apple from researchers at Intel as a nod to his position as Lucasian Professor of Mathematics at Cambridge, a position once held by Isaac Newton.



Create your own constellation projector with a toilet roll, torch and some black card. Check out our Pinterest board for some ideas.



"Remember to look up at the stars and not down at your feet." Create your own night sky poster/picture using materials of your choice.



Food

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Family dinner times in the Hawking household were often silent affairs with everyone reading. Spend your time reading with family/friends whilst eating and experience life as Stephen would have when growing up in Oxford.



Make a recipe using apples.

Why?

In 1979 Stephen was appointed to Cambridge's Lucasian professorship of mathematics; a post once held by Isaac Newton who formulated gravitational theory after reportedly watching an apple fall from a tree.



Stephen attended Oxford University, graduating in 1962. Have a go at making your own Oxford Marmalade and discover its origins.



Bake your own Pope Lady Cakes, a small sweet cake associated with St. Albans where Stephen Hawking went to school.



Make a traditional pudding from Oxford such as Oxford New College Pudding or Hollygog Pudding.



Stephen's family were considered eccentric and are said to have kept bees in their basement and made fireworks in their greenhouse! Have a go at making a recipe with honey.



Put together your own edible constellations.

How?

There are lots of ways you can do this and we've pinned several to our Pinterest board but here's a few to spark your imagination: bake biscuits with raisin/chocolate chip stars on the top then connect the stars with icing once baked, join mini marshmallows together with cocktail sticks or fry some pancakes with blueberry stars!



Make a piece of toast and explore radiation in simple form, then take a look at Hawking Radiation, explained simply in The Guardian's video *Stephen Hawking's big ideas... made simple* | *Guardian Animations* on YouTube.



In 2007 The Independent published *Stephen Hawking's Chicken Jalfrezi*. Find the recipe and try it for yourself.



On 31st March 2018, the day of his funeral, Stephen's family made a donation to Cambridge FoodCycle as "a gift from Stephen" which was hosting a lunch for vulnerable members of the community. Donate to your local food bank or give your time to feed others.



Games

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As a youngster, Stephen loved board games and together with his friends created new games of their own. Play some board games together with your friends/family.



With your friends or individually, create a board game of your own design for others to try. Why not base it on Stephen's life or theories?



Stephen became notorious for his wild driving of his wheelchair around Cambridge, even running over people's toes on occasion...test your own driving skills using skateboards, office chairs or even wheelchairs!



Have a game or two of Black Hole Bucket.

How?

Toss 'stars' made from aluminium foil and other space matter (i.e. balls, beanbags, etc.) into a black hole (bucket). Test your aim and if you fancy, delve further in to Stephen's theories on event horizons, singularities and Hawking Radiation.



In a Room 101 style game decide what you would put in a black hole! Never seen the TV show before? Panelists take it in turns to persuade the host that their scenario/object/situation should be put into Room 101 never to be seen again.



Stephen Hawking was known for his wicked sense of humour and throughout his life appeared in several comedy shows including a special for Comic Relief. Take it in turns to make each other laugh or create your own comedy show.



Hold your own boat race.

How?

You need a large space with a smooth floor (like a sports hall or gym). In teams sit on the floor in a line facing the same way, one behind the other, with each person sitting slightly between the others legs, much like rowers in a boat. Race to the finish line by simultaneously pushing yourselves along so the whole team stays together and moves at the same time, as though gliding through the water, but instead sliding across the floor.



Go on a solar system scavenger hunt to find the planets.



Stephen dedicated his life to making his theories accessible, simplifying them in books such as, *A Brief History of Time*. See how simple you can make everyday concepts in a describing game, i.e. Toast = cooked bread. Can others guess what you are trying to describe?



Other

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As a teen, Stephen built a computer from old clock parts, telephone switchboards and other recycled items. Have a go at building a computer from component parts or junk modeling with recycled materials.



Both Stephen and his parents studied at Oxford University, take a trip there and see some of the sites that would have been familiar to Hawking.



Read one of Stephen's books. He wanted his work to be accessible and wrote books for all ages including a number of children's books with his daughter, Lucy. *A Brief History of Time* has sold more than 25 million copies in more than 30 languages.



Have a go at the Ice Bucket Challenge which is said to mimic some of the feelings and involuntary movements of Motor Neurone Disease.



Stephen was born on the 300th anniversary of Galileo's death and died on Einstein's birthday. Discover some famous people who share your birthday.



Watch *The Theory of Everything*, the 2015 film about Stephen's life with his first wife Jane Wilde and his diagnosis of Motor Neurone Disease (rated 12).



Go stargazing as Stephen did with his mother and siblings during his childhood; experiences which sparked his interest in the universe.



Try rowing; Stephen was team coxswain during his time at Oxford.



Together with his daughter Lucy, Stephen wrote a number of children's books collectively titled *The George Series*. Have a go at writing your own short story.



A Brief History of Time, published in 1988 has been translated in to over 30 languages. Discover some common space words such as star, universe, galaxy and planet in other languages.



Hawking died on 14th March 2018, 50 years later than expected and having achieved so much. At the time of his MND diagnosis in 1963, at the age of 21, he was only expected to live a further 2 years. If you were given 2 years to live what would you do with your time? Write a bucket list.



On 29th June 2009, Stephen held a party for Time Travellers. Find out how and why and host your own time travel themed party.



The contents of Stephen's office were donated to the Science Museum Group, take a look at some of the objects online or visit the display.

Adventure Complete?

Reward your young adventurers with their Stephen Hawking Challenge badge to mark their achievements! Head to the website to bag yours, download certificates and discover even more adventures!



Create a Keepsake!

Experienced adventure? Made memories? Then it's time to create a keepsake! Our Pawprint Family camp blankets are the perfect place to sew your badges and look back on them for years to come.



Personalise it!

Got your camp blanket? Then it's time to make it yours! Our alphabet badges are **big, bright and bold**...the perfect addition to your camp blanket, hoodies, bags and more. What will you personalise first?



Even More Rewards!

We're all about added value here at Pawprint Family. In addition to the 1000s of **free activity ideas** and resources you'll find **loyalty stickers** in every order and you can claim Children's University learning hours too!



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