



Children's University Tasmania

Christmas Challenges 2020-2021

Earn up to 1-2 hours per challenge – time awarded is at discretion of School Coordinators

DIY Christmas Crafts [Up to 2 hours]

Did you know craft Christmas trees can be made with popsicle sticks, clothes pegs, wool yarn and beads? Make your own Christmas creation using simple easy-to-find materials – it can be anything you like, such as Christmas trees, bells, angels and more! Show your creation or a photo of it to your School Coordinator.



The best thing about 2020 was... [Up to 1 hour]

It's been a tough year, but even during tough times there are some good things. What was the best thing about 2020 for you? Make something that shows the positive stuff for this year. It can be something you build, draw, sing, dance or anything, once it is about your 2020. Share it with your School Coordinator.



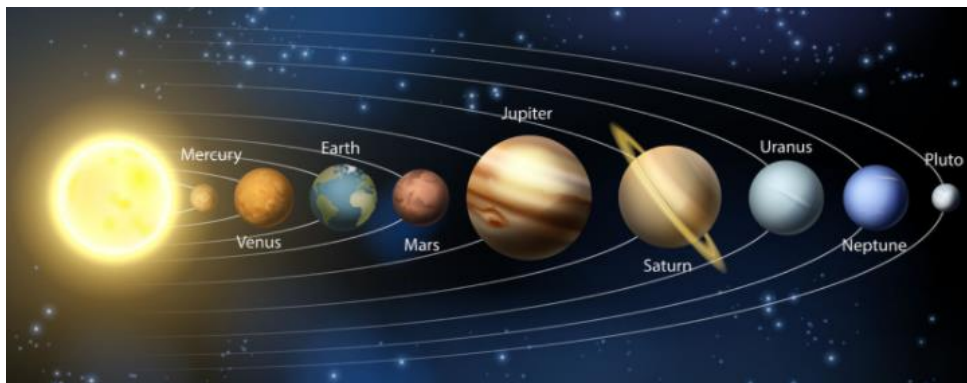


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Make a Planet [Up to 2 hours]

Make your own planet – it can be a planet from our solar system or your own created planet. It can be big or small, it's up to you. There are many ways to do this – some people use a balloon and Papier-mâché, others might find a ball or other round object. Show your planet or a photo of it to your School Coordinator.



Home-made Hats [Up to 2 hours]

Create your own home-made hat, cap or headwear. Use easy to find materials – paper, cardboard, cloth, bowls or buckets, scissors, string and decorative items should do the trick. Decide what style of hat and have some fun! Show your home-made hat or a photo of it to your School Coordinator.





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Retro Remnants [Up to 1 hour]

Find something old – something that was used a lot by people before you were born, but not used much anymore. You might find it at an antique shop, a museum or even on a history TV show! Find out as much as you can and share what you learn – provide a photo or drawing of it for your School Coordinator.



Your Speech [Up to 1 hour]

You've been invited to talk to a big audience about something you are interested in. What will you talk about? Do a drawing or painting of you delivering your speech and share with your School Coordinator.





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Tour Guides [Up to 1 hour]

Your mainland mates have just arrived in Tassie. They are here for 2 days and you are their tour guide. Where will you take them? Draw a map and pictures of your travels and show to your School Coordinator.



Time to Vote [Up to 2 hours]

We live in a democracy and when you're 18 you will be able to vote in elections, so let's get some early practice. Organise a vote for your classmates, family/friends or another group. Decide what they're voting on – it could be Apples vs Oranges, or any other voting topic. Make a hole in a cardboard box, create some ballot papers and find a pencil for your voters. Afterwards, share your results with your School Coordinator.





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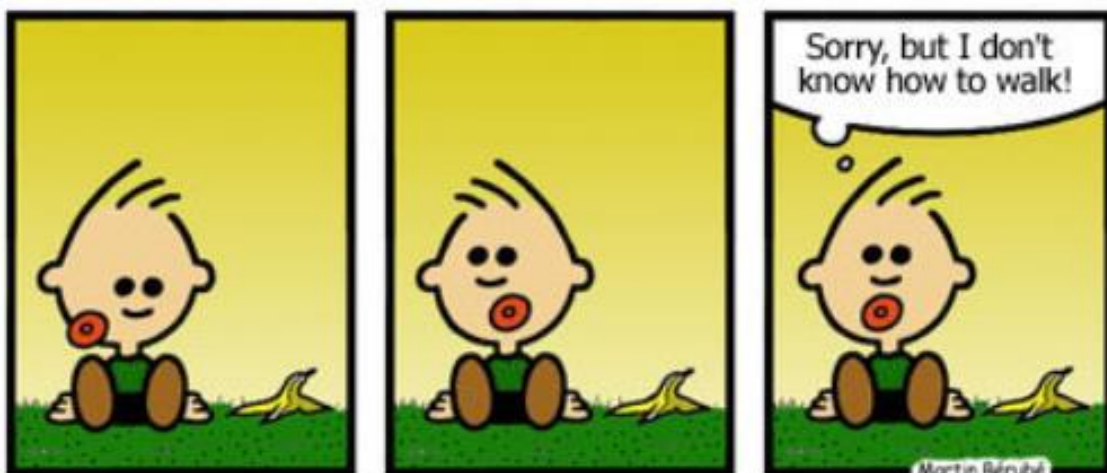
Documentary Billboards [Up to 1 hour]

You've been invited to make a documentary so that other children can learn about your favourite topic. Make a billboard or poster and promote it your School Coordinator. Recommend A4 or larger size.



Comic Strip [Up to 1 hour]

Create a Comic Strip about an activity or experience you did recently. Use your imagination and use a series of pictures to tell your story – show your comic strip to your School Coordinator.





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Letters & Name Game [Up to 1 hour]

What are the letters in your name? Pick a letter from your name and find something you love that starts with this letter. It can be from your first name or surname – an example is below (Sarah, who loves Science 😊). Make a poster or card and show your fun creation to your School Coordinator.



From regal eagles to silly seagulls [Up to 2 hours]

Do you have a favourite type of bird? Have you ever seen a rare or endangered species, such as the wedge tailed eagle pictured below? Make a model bird/artwork of your choice and show your School Coordinator.





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[The Wonder Weekly \(Newspaper\)](#)



The WONDER WEEKLY



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Published by the Peter Underwood Centre

November 23, 2020

Released
back into
the wild:
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spot the
difference?
Page 2



SANDCASTLE SCIENTISTS



Share projects inspired by *The Wonder Weekly* with us.
Email: UnderwoodCentre.Resources@utas.edu.au

Pictures: Stocki Nadezhda's 406 Nicola
Eranson

As summer approaches in Tasmania, families will be heading to the beach to swim, surf and have fun on the sand.

And what could be more fun than building a sandcastle.

Of course, the perfect sandcastle requires the perfect sand.

The sand closest to the water is too wet to build with and collapses, while the sand farthest away from the water is too dry to hold a shape.

So what is the perfect moisture content to build a sandcastle?

Scientists from Iran, The Netherlands and France collaborated in research to answer this very question.

Maryam Pakpour, Mehdi Habibi, Feder Molier and Daniel Bonn

discovered that sand with a water volume of just 1 per cent was required to build the tallest sandcastle possible.

The results were published in the science journal *Nature*.

The study involved testing different levels of sand wetness and building higher and higher columns of sand.

At one part water to 99 parts sand, the scientists were able to build columns five metres high.

Now that would be an impressive sandcastle!

A small amount of liquid forms bridges between grains of sand, linking them together to allow the creation of structures such as sandcastles.

This is because of a force known

as 'surface tension', which causes water molecules to attract.

Fill a glass to the brim with water, and you will notice a dome forms - the water miraculously rises above the edges of the glass.

This is surface tension in action.

A plastic bucket and spade are handy tools, but using your hands is the best method for constructing a sandcastle.

Compacting sand with your hands shortens the 'water bridges' between the grains and

leads to a sturdier castle.

Perhaps before heading to the beach you might like to draw a site plan for your castle.

A site plan will provide a bird's-eye view of your castle, and allow you to maximise your time when you arrive at the beach.

Include walls, towers, moats and definitely a draw bridge.

As well as sand you could use other items on the beach to construct and decorate your castle.

Shells, small pebbles, seaweed,

a small stick for a flag pole, the options are endless.

But remember, a sandcastle only lasts until the next high tide.

Ask an adult family member to take a photo of your castle so you have a record of it to keep.

We would love to see examples, if you would like to send the photos through to us.

Don't forget to wear a hat and smother any bare skin with sunscreen.

And always keep well clear of any shorebirds while at the beach.

Children's University Tasmania members can earn stamps in their passports for this challenge, at the discretion of their school coordinator.

"Education perhaps more than anything else is a passport to a better life." - Peter Underwood AC

<https://www.utas.edu.au/underwood-centre/publications-and-resources/the-wonder-weekly>