

TERM 4 - LOCKDOWN STEAM CHALLENGES - 2021

Science	Technology	Engineering	Art	Maths
MAGIC MILK! Gather up some everyday items often found in your pantry and put on a milk magic show! - Gather your ingredients: - Whole milk - Food colourings - Washing up liquid - Cotton swabs/ q tips - Plate or bowl - Jar or cup - Pour some milk into a plate or bowl. - Squeeze a few drops of food coloring in the center of the milk. Just one drop per color is a good amount. You definitely want to add several different colours to get the full effect! - Squeeze a little dishwashing liquid into a jar or cup. Then, dip the end of the cotton swab into the dishwashing liquid. - Touch the swab with the dishwashing liquid to the centre of the milk and watch closely. - Watch the colour explosion! You should be able to touch the swab several more times before the explosions stop. (If you want to try it again, you'll need to pour it out and start over.)  Upload pictures or videos of your milk magic to THIS PADLET	LOCKDOWN LIP SYNC BATTLE! Check out this video (click on the image below) for some serious inspiration!  Time to rope your whanau into your very own lip sync music video! - Gather your whanau. - Raid your dressing up box. - Choose your favourite song. - Go for it! So much fun to be had! How creative can you be? Can you make up a dance routine? Can you get your dad in a dress?!! The opportunities are endless!  Upload your music videos to THIS PADLET	SPAGHETTI SKYSCRAPERS! Build the tallest skyscraper using spaghetti and marshmallows. Your skyscraper does not have to have a square base. Consider other shaped bases too. - Find some dry spaghetti and marshmallows (or something similar like playdoh, plasticine etc.) - Consider the Engineering Design Process when sketching up some ideas for your skyscraper. Remember the design challenge is to make it as TALL as possible. - Your spaghetti skyscraper must be able to stand unaided! You could even try this challenge with meatballs! Check out this video.  Upload a picture of your towering skyscraper to THIS PADLET	SPRINKLES DANCE PARTY! Ever wanted to see sound? Try this experiment to turn music into motion! - Gather your materials: - Ziploc bag - Plastic Glad Wrap - Wireless speaker - Bowl or vase large enough to fit over speaker - Device to be able to connect wirelessly to speaker - Sprinkles (as in the stuff you put on cakes!) - Choose a pumping song! Turn on the speaker and place it in the bowl. - Stretch the plastic wrap across the top of the bowl. Make it as tight as you can, with as few wrinkles in the wrap as possible. - Pour some sprinkles into a Ziploc sandwich bag. Then seal the bag, leaving a pocket of air, so the sprinkles have room to dance! - Place the bag on top of the plastic wrap on the bowl. - Using your device, find different songs and turn up the volume to watch the sprinkles dance. Observe what happens to the frequency of your jumping sprinkles!  Upload your art to THIS PADLET	IT'S ALL IN THE SHAPE! Shapes can be very clever things indeed. Try this shape experiment to see how a 'chain reaction' works. - Gather your materials: - lolly/craft sticks - Place two craft sticks on a long table in the shape of an "X". - Stick a third craft stick underneath the end of the craft stick in the top left corner. Make sure to hold down the "X" shape as you do this and for the following steps! - Stick a fourth craft stick underneath the end of the craft stick in the bottom right corner. - Stick a fifth craft stick underneath the end of the craft stick to the immediate left of the craft stick in the top right corner. - Stick a sixth craft stick underneath the end of the craft stick to the immediate left of the craft stick in the bottom right corner. - Continue adding craft sticks in this way until you have either run out of craft sticks or have reached the length you want. We made our chain about two to three feet long. - Let go of the "X" and observe what happens. CONFUSED? Check out this slideshow with pictures to show you how to do it!  Upload pictures or videos of your chain reactions to THIS PADLET