

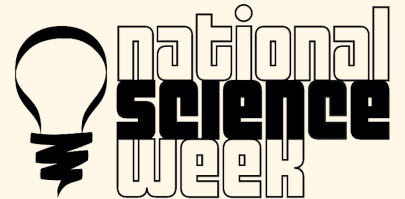
SCIENCE WEEK NT



2020 ONLINE VIDEOS



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SCIENCE WEEK NT 2020 ONLINE VIDEOS SPORTS



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STEMFIT 1 - WHAT IS A WEARABLE?

What is a wearable? Devices like apple watches, fitbits and smart phones are devices with sensors that capture the body's movement patterns hundreds of times a second. This video will show what data is acquired and how it is related to human movement.



STEMFIT 2 - BIOLOGY OF THE BODY

How our bodies work is fundamental to performing as an athlete or playing in the background. This video gives an overview of the biology of energy production in the body and how what we eat affects to our energy levels,



STEMFIT 3 - SPORT CAN BE STEM TOO

Coupling an understanding of biology, with basic metrics of movement, from stop watches all the way up to wearable technologies, this video introduces how the science of measurement can help improve training.



BASKETBALL - THE ART OF SHOOTING

Join us as we look into the sport of basketball and science behind the art of shooting. Our curiosity sparked an interest in investigating whether there is science behind the art of shooting and to find out if science plays a role in becoming a great shooter.

**Click on the video photo or title to watch it on youtube.

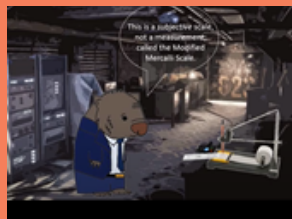


SCIENCE WEEK NT 2020 ONLINE VIDEOS GEOLOGY



THE WOMBATS OF WOLLOMBI EPISODE 1 - THE BONES FROM NOWHERE

Join Earth Inspectors, The Wombats of Wollombi, as they work out the origin of mysterious bones discovered in remote Queensland.



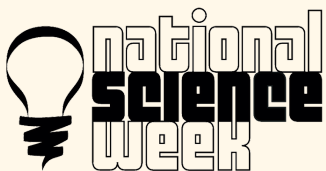
THE WOMBATS OF WOLLOMBI EPISODE 2 - SHAKY-WAKEY!

Join Earth Inspectors, The Wombats of Wollombi, as they investigate the cause of Darwin City's shaking

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CHEMISTRY



NATIVE PLANT NANOCARRIERS

Here we will examine an alternative way of administering native Australian medicinal plants with the aim of increasing the efficiency of probable biomedical properties. We will prepare a nanoemulsion for biomedical applications such as wound healing and antibacterial purposes.



A HISTORY OF BEER

Beer and brewing have a rich scientific history. People have been brewing beer for thousands of years.

We'll look back at the scientific history of brewing and the discoveries that improved our understanding of what fermentation is and how it works.

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SCIENCE WEEK NT 2020 ONLINE VIDEOS CHEMISTRY



THINK INK 1 CHARCOAL INK

Natural art materials: Learn how to make your own charcoal sticks and charcoal ink for drawing and some of the science behind this.



THINK INK 2 FORAGED FLORAL INK

Natural art materials: Learn how to make basic floral ink and the science behind how this works.



THINK INK 3 COPPER INK

Natural art materials: Learn how to make blue-green ink from old copper scraps, vinegar and salt and the science behind how this works.

ENVIRONMENT



REQUIEM FOR A LANDSCAPE

This video features the Artist's large scale drawings before and after the fire,

At first sight, this tropical wetland landscape looks green, lush and pristine. However, someone who walks this scrap of country every day and draws it sees subtle changes following an unprecedented fire. These changes have set the pattern for more fires and more loss of tree cover and wildlife, as this landscape changes from riparian woodland to weedy savanna.

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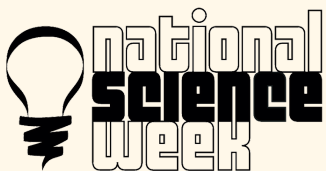
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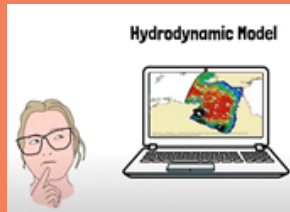
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INVISIBLE SCALES OF MOVEMENT: FREE DIVING INTO A DIGITAL OCEAN

What happens to marine animals when they go out to sea? Join us as we follow a mudcrab in the Gulf of Carpentaria to illustrate how we can still make progress in marine research in places we can't access.



ENVIRONMENTAL SCIENTISTS IN THE TOP END

What does science in the Top End look like? Be inspired by the environmental scientist who are studying the amazing wildlife and ecosystems of the tropical wonderland that is Northern Australia.



BETWEEN THE TIDES

Mangrove forests around the world are under threat. These often misunderstood ecosystems provide many benefits such as carbon storage, storm protection, and wildlife habitat. Follow Darwin fisherman Hiroaki Nakamura as he attempts to catch his 1000th barramundi.



MANAGING MIGRATORY SHOREBIRDS IN DARWIN HARBOUR

Migratory shorebirds are highly threatened. We are lucky in Darwin to have a healthy population right on our door step. These birds are protected and we have an obligation to take care of them and the habitat they use.



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ECOSYSTEM SERVICES: THE VALUE OF NATURE & THE NATURE OF VALUE

Have you ever considered what the value of a beach is? Or the value of a tree? Here, Kamaljit Sangha discusses how we value nature and the nature of value.



COMMUNITY-BASED FISHERIES MANAGEMENT

Jenny House explains her research on how people participate in community-based fisheries management in Timor-Leste. How and why are people included in or excluded from making fisheries management decisions?

ENGINEERING



MIC - MICROBIOLOGICAL INFLUENCED CORROSION

Microbial corrosion is one of the biggest problems in the oil and gas industries.

This video introduces what we know about microbial corrosion, its basic mechanism, its effect on industry and how to prevent it.



ORGANIC SOLAR CELLS

Organic solar cells, which are the next generation photovoltaic devices which have many advantages, like being mechanically flexible, light-weight and cost effective due to room temperature solution processed fabrication. These advantages have led to a dramatic increase in research on enhancing the stability and efficiency of these solar cells.



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SCIENCE WEEK NT 2020 ONLINE VIDEOS ANIMALS



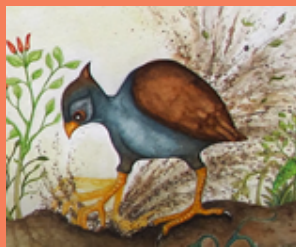
CRY CURLEW, CRY

The Bush Stone-curlew tells a story about how changes to the environment make the curlew cry.



GREEN TREE FROGS

"Fabulous Green Tree Frogs" is a short video for younger children that blends illustration and narration to describe some of their behaviours and life cycle of these cheeky green visitors.



SENSATIONAL SCRUB FOWL

Sensational Scrub Fowl is a short video for younger children combining illustration and narration to explain some of the behaviours of one of our most common (and at times annoying) backyard bird visitors.



THE THREATENED SPECIES ALPHABET

Animals and birds that were common in the Northern Territory just 20 years ago are now on the decline towards extinction. The next generation of human children will never see them. They will be like unicorns and dragons: mythical beasts, existing only in children's literature and imagination.



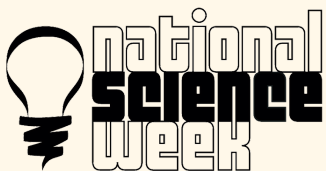
HUMPTY DOO WILDLIFE NOTEBOOK

Started in 1994, this notebook is a visual record of some of the animals, plants and birds found in 20 acres of woodland around the Artist's home in Humpty Doo, near Darwin.

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MOUTHBROODING AND THE COST OF CARING

Mouthbrooding is a specialised type of parenting style where by the parent fish use their mouths as shelter for keeping their eggs safe until independence. This video features the “cost of offspring caring” in two mouthbrooders from NT rivers.



THE LONG-NECKED TURTLE

This interactive performance aims to bring awareness about the biology and conservation of the northern long-necked turtle. Children are invited to help save the turtle from garbage and pigs.

PHYSICS



SOUND FREQUENCY: HOW WE HEAR MUSIC

How do we hear sounds? What makes musical notes different from each other? Find out about frequencies, what they mean to music making and learn how to make simple musical instruments called polywackas!



JUGGLING AND PARABOLAS

What are the simple physics behind juggling? What is the secret of good juggling? Learn how to juggle 3 balls!

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NORTHERN
TERRITORY
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week

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