

Series 328: Create, Code, Go!





In this series, we step into the world of STEM, exploring ideas of science, technology, engineering, and mathematics. We meet people who work with STEM ideas including a vet, a marine biologist, an engineer, and we meet some children who have learned to program robots to dance!

We have codes all around us, including musical codes or signs for movement. This series of Play School explores some of these codes and shows that it can be great for our thinking to make mistakes and fix them up. We also enjoy some playful experiments and explore coding through dress ups and pretend play.



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Episode 1



PRESENTERS

Matthew Backer & Zindzi Okenyo

PIANIST

Peter Dasent

STORY

Where Is The Green Sheep?

Author: Mem Fox Illustrator: Judy Horacek Publisher: Angus & Robertson:

Viking published by The Penguin Group

2004

FILM

Vet Science

(Play School, ABC)

IDEAS FOR LATER

- Have you ever been to a vet? Draw a picture of the types of things a vet (or an animal doctor) can help with.
- Make a farm with your toys.
- How many animals can you make from a cardboard roll? Make some holes and poke in sticks for legs, pipe cleaners or feathers for tails and cotton wool or textured fabrics for fur.

SONGS

Rain

Composer: Jay Laga'aia Publisher: ABC Music Publishing

I Went to Visit a Farm One Day

Composer: Traditional

Publisher: ABC Music Publishing

Giddiap

Composer: L Scott & L Wood Publisher: Chambers Harrap

Little Peter Rabbit

Composer: Traditional

Publisher: ABC Music Publishing

I'm So Hungry

Composer: Ann North, Martin Wesley-Smith &

P Wesley-Smith

Publisher: Unpublished (APRA / AMCOS

Member)

Goodnight Goodnight

Composer: Arthur Baysting & Peter Dasent

Publisher: Origin Music

Down on the Farm

Composer: Graham Beebee

Publisher: BBC / KPM Music Publishing





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MAKE AND DO



How to Make a Home for Your Animals

You will need:

- Recycled cardboard boxes
- Some scissors
- Coloured paper
- Toy animals, or pictures of animals

Instructions

Asking a grown up to help, make a stall or pen for each of your animals.

You might need to put the animals in the box to check they will fit.

Give each animal their own house, and cut a lower section to be the door shape so the animal can move out (just like when we visited Jemima being a vet).

Use the coloured paper as food for the animals, cut up some yellow strips to be straw and some green strips to be grass. Check that your animals have some water!

You could pretend to be a vet and check that all your animals are healthy. Or, pack your animals up and take them for a ride on a bumpy tractor – just be careful they don't fall out!



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Episode 2



PRESENTERS

Rachel Coopes & Nicholas Brown

PIANIST

Peter Dasent

TOLD STORY

Lucy La La's Lazy Lunch
(A story told by the Play School team)

FILM

Marine Biologist (Play School, ABC)

IDEAS FOR LATER

- Cleaning up can be great fun, especially if we make it a game. Draw or write a list of things to do. This could be simple tasks such as collect 2 toys from the floor or make the bed. Play some fun music and see who can finish their "list" before the song finishes.
- What happens to our rubbish if we drop it? Imagine where the rubbish could blow or wash away to.
- Explore oil and water, poor a teaspoon or two of oil into a glass of water see what happens. What changes if you stir it?

SONGS

Cleaning

Composer: M Sullivan & C Adams Publisher: ABC Music Publishing

Green Green

Composer: Traditional

Publisher: ABC Music Publishing

All The Fish Are Swimming In The Water

Composer: Beatrice Landeck Publisher: J. Albert & Son

Ocean Motion

Composer: Jimmy Kennedy
Publisher: Campbell Connelly & Co
(C/- Albert Music and Music Sales UK)

All The Colours Of The Rainbow

Composer: Colin Buchanan & Keith Robert

Publisher: Rondor

Two Little Boats

Composer: Traditional

Publisher: ABC Music Publishing





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MAKE AND DO





How to Make an Under the Sea Stamp Picture

You will need:

- A large piece of paper
- Thick paint
- Sponges, with different textures and shapes
- A cloth or sheet to protect your working area

Instructions

Dip a sponge in one of the paints.

Stamp' it on the paper.

What sea creatures can you paint?

How to Make an Icy Fruity drink

You will need:

- Fruit, cut up to fit into an ice cube tray
- 1 ice cube tray
- Water
- A freezer
- Cups

Instructions

Put your cut-up pieces of fruit into the ice cube tray. You could keep your flavours separate, or you might like to try some new flavour combinations.

Add water to each of the sections with fruit in them and then put your ice cube tray in the freezer until frozen.

When your Fruity Ice cubes are ready, add water for a delicious icy fruity drink!



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Episode 3



PRESENTERS

Rachael Coopes & Zindzi Okenyo

PIANIST

Peter Dasent

BOOK

Millie Loves Ants

Author: Jackie French Illustrator: Sue deGennaro

FILM

Nature Build

(Play School, ABC)

IDEAS FOR LATER

- Head outside to the park or garden and see if you can find some worms or ants.
 Look and see how they move in their environment.
- Draw pictures of dance moves. Take turns using your moves to make a new dance, but don't go too fast or it will be tricky!
- Imagine you were going on a treasure hunt. What things would you draw on your map to find?

SONGS

There's A Worm At The Bottom Of My Garden

Composer: Traditional

Publisher: ABC Music Publishing

The Ants Go Marching

Composer: Traditional

Publisher: ABC Music Publishing

You Can Stamp Your Feet

Composer: Judy Whitfield & Paule Reade

Publisher: Dreams On Tape

Here's A House

Composer: Traditional

Publisher: ABC Music Publishing

We're Going On A Bear Hunt

Composer: Traditional

Publisher: ABC Music Publishing





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MAKE AND DO



How to Make a Treasure Hunt Map

You will need:

- Paper
- Pen or pencils
- A surprise to hide in your garden or at the park
- An adult to help, especially if you're at the park
- An X shape on paper (or a treasure, such as a picnic, put somewhere safe)
- A friend or special toy to come on your adventure

Instructions

Look in your garden, or at the park and find some landmarks – these are special places that could be part of your journey, like a bridge or a tree to move under. At one of these landmarks you could put your X shape (or hide your treasure if it is safe).

Draw these landmarks onto your map and plan a journey of 3 or four stops.

Have a friend or special toy follow the instructions to find your treasure!



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Episode 4



PRESENTERS

Zindzi Okenyo & Luke Carroll

PIANIST

Peter Dasent

TOLD STORY

Mr Round's New House

(A story told by the Play School team)

FILM

Strong Shapes

(Play School, ABC)

IDEAS FOR LATER

- Look for some tall buildings near where you are. What strong shapes can you see in the tall buildings?
- Explore the circle shaped objects in your day, you'll be surprised where you find them. Circles are great to help things move – but not so good for building!
- Pretend to be a robot. Plan a simple program to move up or down, step this way or that way or make different shapes.

SONGS

The Little Red Engine

Composer: Traditional

Publisher: ABC Music Publishing

Walk And Stop

Composer: Traditional

Publisher: ABC Music Publishing

Man-Man-Mangia

Composer: Rosemary Sheldon &

Pauline Mitchell

Publisher: ABC Music Publishing

Build It Up

Composer: Peter Charlton

Publisher: BBC & KPM Music Publishing

All The Colours Of The Rainbow

Composer: Colin Buchanan & Keith Robert

Publisher: ABC Music Publishing

Would You Like To Be A Tree?

Composer: Peter Casey & Carissa Campbell

Publisher: Silver Burdett





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MAKE AND DO



How to Make a Tall Tower from Recycled Boxes

You will need:

- Recycled boxes such as tissue boxes or pizza boxes
- Optional paper and pens or pencils

Instructions

Begin by trying to build the tallest tower from your recycled boxes. Check to see if it is tall and stable.

Is there another way you could build your tower so that it is taller or stronger?

Draw the instructions for your tower and see if a friend or parent can build it!



How to Make a Program for a Moving Robot

You will need:

- Paper card
- Pen
- Space to move around in

Instructions

Imagine you are a robot who can move forward, backward and turn.

Use the paper card to write a set of instructions for your robot to move in.

You could program your robot to move in a shape. To make a square you would move forward, turn, move forward, turn, move forward, and turn.

Give your instructions to a friend and see if they could move in the same way.



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Episode 5



PRESENTERS

Matt Backer & Emma Palmer

PIANIST

Peter Dasent

TOLD STORY

The Strings Day Out

(A story told by the Play School team)

FILM

Bee Bots Coding

(Play School, ABC)

IDEAS FOR LATER

- Music is full of codes, sing a simple song and see if you could write down some codes, for example when it is loud and soft, or high and low.
- Make your own marvellous moving machine with some blocks or dominos and a car toy.
- Play a pretend instrument along to your favourite music.

SONGS

The Old Grey Cat

Composer: Traditional

Publisher: ABC Music Publishing

Let's Play Together

Composer: Arthur Baysting & Peter Dasent Publisher: Origin / ABC Music Publishing

We Can Play On The Big Bass Drum

Composer: Traditional

Publisher: ABC Music Publishing

Twinkle Twinkle Little Star

Composer: Traditional

Publisher: ABC Music Publishing

By The Light Of The Silvery Moon

Composer: Gus Edwards / Edward Madden Publisher: Public Domain in Australia

R.O.B.O.T.

Composer: Vanessa Johnston / Karina Johnston

Publisher: Jingle Jam P/L

Dancing Pants

Composer: Arthur Baysting, Peter Dasent & Justine Clarke

Publisher: Origin / Control





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MAKE AND DO



How to Plan a Dance for your Robot

You will need:

- A toy, or a friend who can pretend to be the robot
- Paper or arrow cards
- Some music

Instructions

First plan your steps. You could plan 2 steps forward, 2 steps backward and then 4 turns.

When you plan your steps use arrow cards or write them down on a piece of paper.

Share your plan with a friend or favourite toy and see if they can act out your dance.

Have fun making your program more complicated and create new moves and symbols to use e.g. jump, or roll!