

Drawing for Science, Invention & Discovery Even If You Can't Draw by Paul Carney

[Paul Carney](#), educational consultant and author has created six activities for AccessArt that meet the National Curriculum needs of both Science and Art & Design. The following resources explore methodical and chance drawing processes, together with visualisation, adaptation and memory drawing activities. The projects encourage observation, recording, creative thinking and invention; skills fundamental to the roles of artist and scientist.

Adapted from the book '*Drawing for Science, Invention & Discovery*' by [Paul Carney](#)

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paul carney arts

Methodical Drawing



_____ This activity demonstrates how drawing is used by scientists as a means of

recording and cataloguing large amounts of complex information. It shows you how and why drawing can help us to better understand the objects we are studying and the importance of organising and sorting information.[Read More](#)

Serendipity Drawing



Many of the world's greatest inventions have occurred by chance. This activity shows you how chance plays an integral part of the making process in art and shows you how artists try to manipulate it to further their creative purposes.[Read More](#)

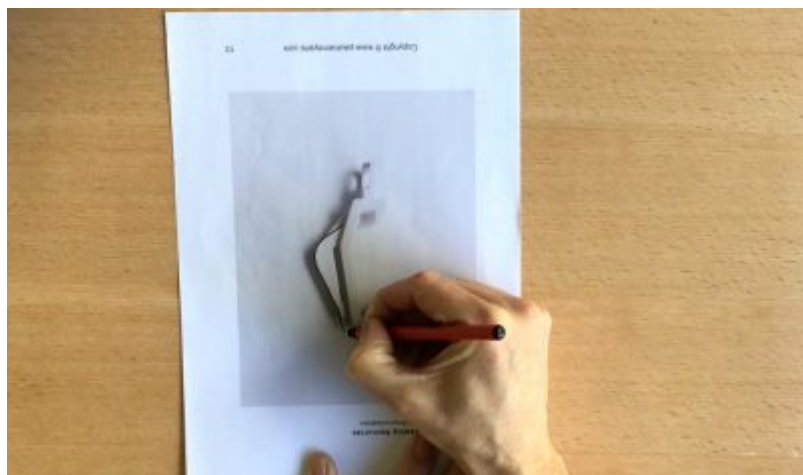
Trial and Error Drawing



Mistakes aren't an unwanted outcome of the creative process, they are integral; a

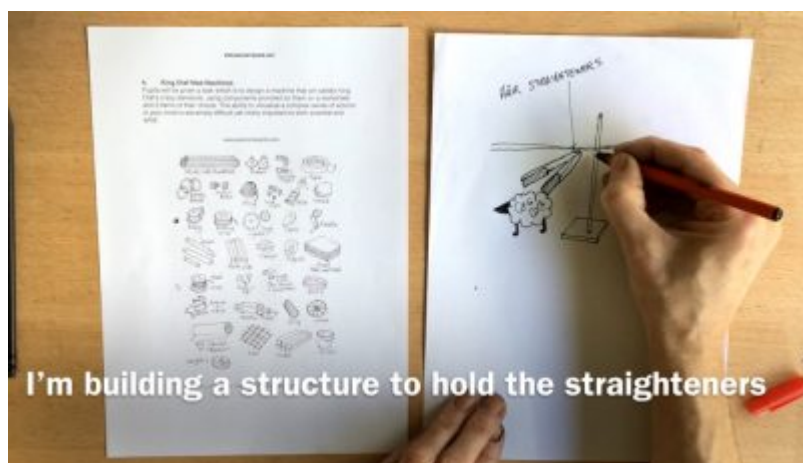
vital part of making. In this session we learn how to develop our working memory so that we might understand the creative process of action, mistakes and action better.[Read More](#)

Adaptation Drawing



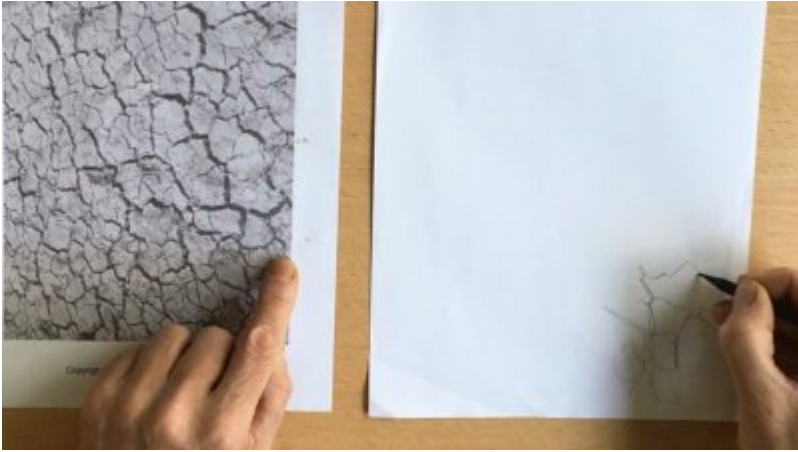
[_](#)This session is designed to explain the cognitive approach used by scientists to utilise the properties of one material for another, quite different purpose. It will also assist in developing pupil's ability to cognitively imagine and invent.[Read More](#)

Visualisation Drawing



[_](#)Can we learn how to improve our ability to visualise complex sequences of information in our mind? Artists and scientists use this skill when thinking about the possible future stages of their work, but can we learn how to get better at it, so that we might become more successful practitioners?[Read More](#)

Doppelganger Drawing



Many people find drawing difficult so I've developed this simple technique to show you how you might improve your drawings. What I want you to do is to hold your fingers out like this in front of you, and I'd like you to try and start moving them in synchronisation. [Read More](#)

This is a sample of a resource created by UK Charity AccessArt. We have over 1500 resources to help develop and inspire your creative thinking, practice and teaching.

AccessArt welcomes artists, educators, teachers and parents both in the UK and overseas.

We believe everyone has the right to be creative and by working together and

sharing ideas we can enable everyone to reach their creative potential.

Adaptation Drawing

Trial and Error Drawing

#CreativeJourneys

Water and Rock: Teenagers explore building drawings with graphite and modroc

Teenagers look at pieces of chalk and flint and explore the physicality of rocks and geological processes with graphite and plaster.

Drawing Flames

Teenagers are led on several guided drawing exercises exploring mark making to the rhythm of a burning flame.

Windy Day Drawing: What was it really all about?

3D Drawing with Paper: Texture – Surface – Structure

Artist Andrea Butler sets teenagers the challenge to create 3D forms from sheets of paper experimenting with structure and texture using manipulation techniques.

Bold Autumn Still Life

Teenagers engaged in creating bold still life drawings

Introduction to Life Drawing with Hester Berry

Teenagers Improvise a Shadow Puppet Play

Enjoy following how the saga of a lion., a dog, a goat, a stegosaurus, and an 'animal fairy', told by Sophia and improvised by this creative 'Experimental Drawing' team

Articulated and Animated Drawings by Teenagers at AccessArt's Experimental Drawing Class

A simple project to teach how to make an articulated drawing with only very basic materials.

Illustrating Jabberwocky'

'The

In this resource, AccessArt contributor Eleanor Somerset, illustrates how she worked with a group of 7-10 year old pupils and another of 10-15 year old budding artists, at the Little Art Studio in Sheffield, on a series of workshops to illustrate Lewis Carroll's The Jabberwocky.

Sculptural Birds in Flight by Teenage Makers

In this workshop teenagers played with sculptural ideas around building form and mass, tension and scale by combining materials from Scrap Stores.

Making and Drawing Birds

**creating decorative designs from birds:
markmaking, texture and pattern**



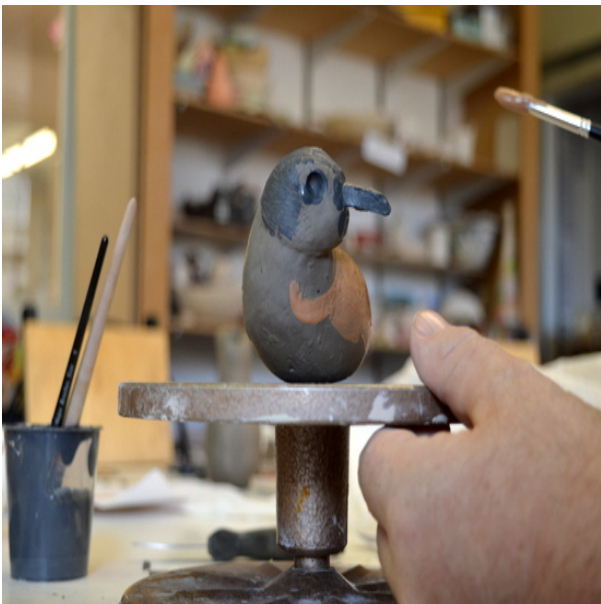
In the Company of Birds



nest



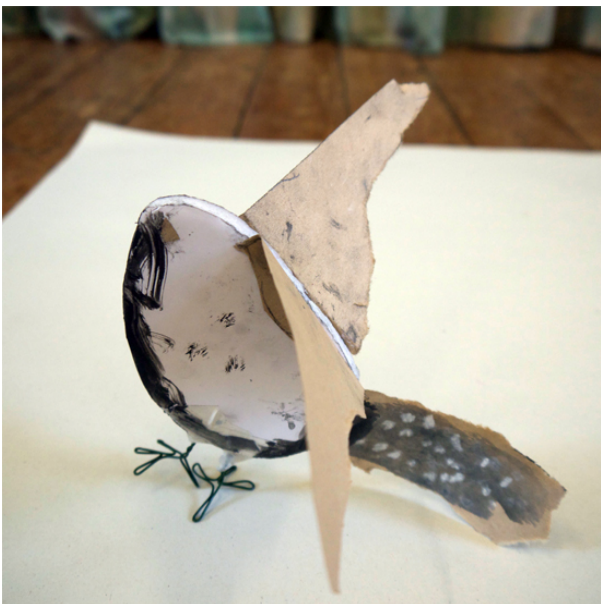
Rowan: Making a Clay Bird from a Mould



dragons and birds in eggs: hidden and revealed



making birds! sculptural ideas for primary schools



Sculptural Birds in Flight by Teenage Makers



rook: transforming materials



**Printing at Battyford Primary, Inspired
by Hester Cox**



‘Flock’ at Prospect House School, Inspired by Veronica Lindsay-Addy



book transformation: flock of birds



drawing birds with mixed media: creating effects with oil pastels, crayons and ink washes



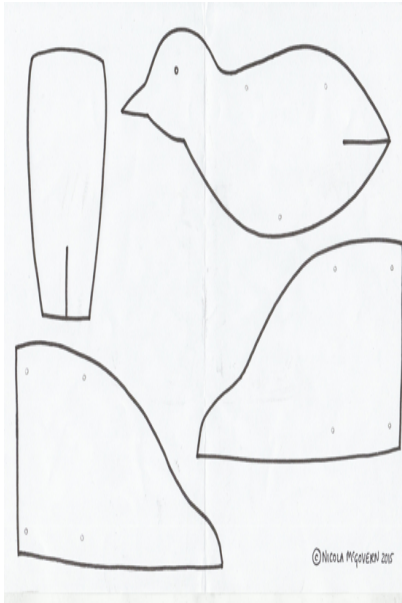
‘Dawn Chorus’ by Marcus Coates



Colourful Sculptural Birds by Pupils at Donhead Preparatory School



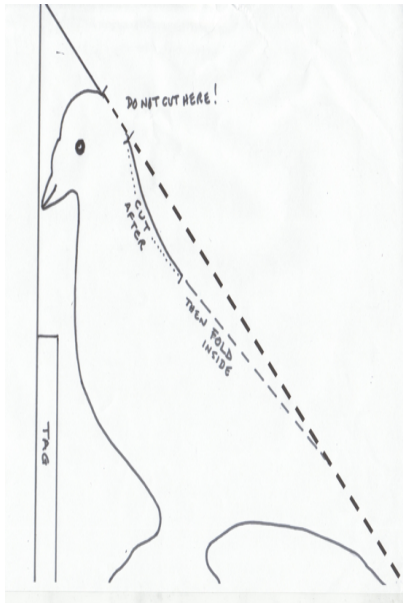
Priscilla the Puffin: Make a Simple Bird Mobile



How to Make a Simple Origami Bird by Melanie Johns



Paper Pidgeon Project



‘Birds in the Trees’ by Pupils at Battyeford Primary School



Brave Young Makers: Year Three Pupils at Ridgfield Primary Transform materials into Birds and Insects



making modroc sculpture



cantus articus (Concerto for birds and orchestra) Op.61: Images Inspired by Music



Perseverance, Determination and Inventiveness: Building Nests



Make a Sketchbook, Ideas Book

or Travel Journal this Summer!

AccessArt's Experimental Drawing Class worked during their final session this term, on making their own books for summer ideas (and delightfully their parents joined in at the end of the session and made their own books too)

Teenagers Make Prompts to Overcome White Page Syndrome

Fabulously inspired teenagers at AccessArt's Experimental Drawing Class made prompts to help each other overcome the 'white page syndrome'.

Inspired by Joseph Cornell: Making a Decorative Aviary Box

See This Resource Used In

Schools...





A Model Studio by Susie Olczak

A Model Studio by Susie Olczak: Teenagers explore skills that would be useful in a real life creative working environment

**Printmaking with Salvaged
Sticky Back Aluminium Foil,
Mixed Media and Cardboard**