

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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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](#)

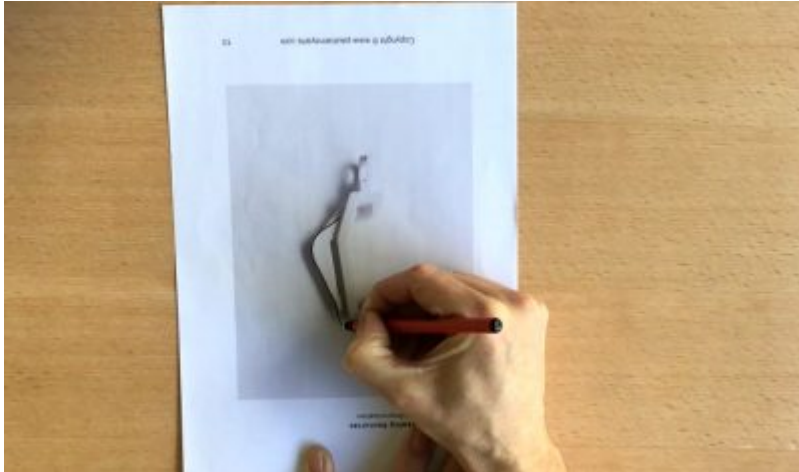
Trial and Error Drawing



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

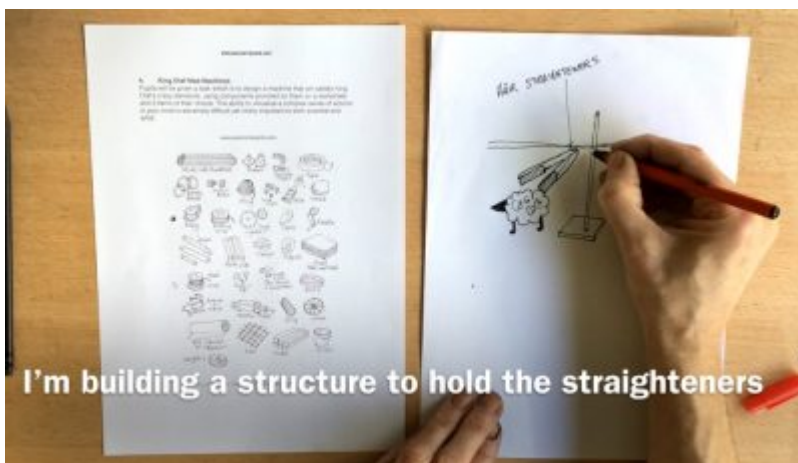
vital part of making. In this session we learn how to develop our working memory so that we might understand the creative process of action, mistakes and action better.[Read More](#)

Adaptation Drawing



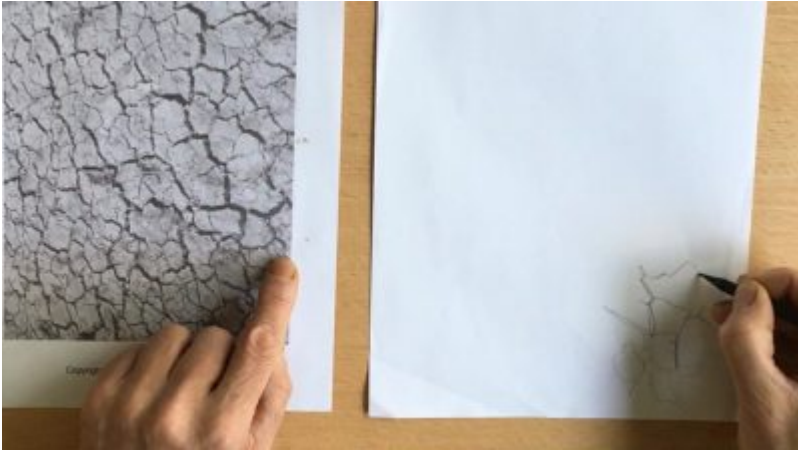
[_](#)This session is designed to explain the cognitive approach used by scientists to utilise the properties of one material for another, quite different purpose. It will also assist in developing pupil's ability to cognitively imagine and invent.[Read More](#)

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.

Visualisation Drawing

Adaptation Drawing

Trial and Error Drawing

Methodical Drawing

Serendipity Drawing

Simple Easter Sketchbook

Playing with tape, projectors, Wicky Sticks and so much more!

Accessible approaches for collaborative drawing with visually impaired students with Sara Dudman and Debbie Locke at the Thelma Hulbert Gallery in Devon

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.

Teachers Start the New Year with Sketchbooks

AccessArt introduces teachers from English Martyrs Catholic Primary School in Worthing, whistle stop introduction to drawing and sketchbooks as tools for recording and thinking.

Year 3 & 4 Making Club: Animal Parade – Week One

To use our Carnival Mask Template to create animal masks for an Animal Parade at the end of this half term.

Drawing Flames

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

Life Drawing: Using Tone by

Hester Berry

Life Drawing: Understanding Foreshortening by Hester Berry

Life Drawing: Drawing Hands and Feet with Hester Berry

Life Drawing: Drawing the Head by Hester Berry

Red to Green: Wax Resist and

Scraffito

Red to Green: Steps to Observational Drawing

Foundations for students to be able to approach observational drawing without feeling inhibited or paralyzed and reinstate their confidence in their ability and right to draw.

Red to Green: Monoprinting

Monoprinting is an excellent way to access mark making and drawing but with a bit of 'distance' from the finished work. Results are always unexpected and the process itself very engaging, so any potential anxiety about what a finished drawing 'should' look like is taken away.

Life Drawing: Capturing

Gesture by Hester Berry