

PATAKA EDUCATION
Art • Heritage • Culture

I SEE RED

COLOUR THEORY
TEACHER NOTES



Education resource compiled by Fiona French, Linda Fordyce and Margaret Tolland, Educators, Pataka Museum of Arts and Cultures, 2009.
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COLOURS – Pigments

WHAT IS A PIGMENT?



Alizarin Crimson

The pigment is the part of the paint that is the colour. It is a finely ground powder that, when mixed with egg, water, oil or other liquid, becomes paint.

The first pigments used were ground from earth and vegetable matter or minerals. Nowadays most pigments are made chemically and are more permanent.

The study of pigments can be useful in determining the date of, and who painted, a particular painting. It can also tell us a lot about how different cultures use their natural resources.

<http://www.theartgallery.com.au/kidsart/learn/pigment/>

Magenta – A French scientist discovered the recipe for producing magenta in 1859. The colour was named after a huge and bloody battle near the town of Magenta in Italy.

Cadmium Red – The chemical element called cadmium is one of the main ingredients in cadmium red. Cadmium red is one of the most lasting, and strongest reds. It is also an important ingredient for making batteries.

Mars Red - Named after Mars, the red planet. Mars red is an artificial red iron oxide – let's call it rust. Mars is also thought to be covered in pigment like this.

Kura – A favourite traditional material for Māori for making kura (red) paint. This volcanic earth can be found throughout New Zealand.

Alizarin Crimson – Alizarin pigment was originally extracted from the red roots of the madder plant, which was grown by the ancient Egyptians and used for its dye as early as 1500BC.

Cochineal – is the name of both crimson or carmine dye and the cochineal insect that the dye comes from. Cochineal beetles are found in Mexico and Central and South America. They live on cactus plants and feed off the juices from the leaves. The dye is made from the dried bodies of the female cochineal beetle and also from their crushed eggs. Cochineal is used as a fabric and cosmetics dye and as a natural food colouring, as well as for oil paints and watercolours.



Cochineal Beetle



◀ Wool
being dyed
using
Cochineal

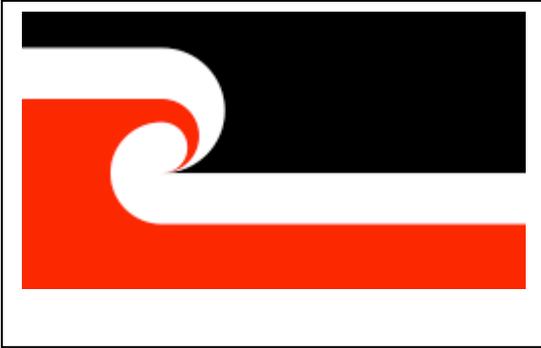


Cadmium Red

COLOUR SYMBOLISM – RED

CULTURAL SIGNS AND MEANINGS

TINO RANGATIRATANGA - The Māori Flag



The *Tino Rangatiratanga* flag was designed in 1990 by Hiraina Marsden, Jan Smith and Linda Munn, and was the winning design in a national contest to find a Māori flag.

The *Tino Rangatiratanga* flag represents a bid for Māori sovereignty, and symbolises all Maori as one people.

At the heart of the flag is an unfurling koru. Derived from the new frond of a fern it symbolises new life, hope for the future, and the process of renewal.



RED represents :

Te Whei Ao (coming into being). It symbolises **Papatuanuku**, the earth-mother, the sustainer of all living things, both the land and active forces.

BLACK represents:

Te Korekore (the realm of potential being). Symbolising the long darkness from which the earth emerged, as well as signifying **Ranginui**, the sky father floating above the earth.

WHITE represents:

Te Ao Marama (the realm of being and light) was created when Rangi and Papa were separated by their children. It symbolises the physical world, purity, harmony, enlightenment and balance.

As a whole, the design represents the balance of the forces of nature, masculine and feminine, active and passive, potential and physical, air and earth.

It can also be interpreted as symbolising the white cloud rolling across the face of the land, as in the Māori name for New Zealand, *Aotearoa* ("Land of the long white cloud").

http://www.fotw.net/flags/nz_mao.html Source: Otago University Student Newspaper *The Critic*, Issue 10, April 1996.

EXTENSION ACTIVITIES

- ▶ Red is the most commonly used colour in flags – **FIND OUT** which international flags have red in them e.g. Switzerland, Korea etc. What do these flags symbolise?
- ▶ **CREATE** a design for your own personal flag. What colour would you use to symbolise you and why?

KOKOWAI ~ Red Ochre

Kokowai is the name for the earth from which red ochre (kura) is produced by burning. Kokowa, literally means 'red water'. ►
 Kura (red ochre) was often used to paint Māori wood carving.
 Kokowai and kura are extremely sacred media and their origins lie in the separation of Papatuanuku (Earth Mother) and Ranginui (Sky Father).



The sacred Kokowai pool in Wairaki near Taupo.

The Separation of Ranginui and Papatuanuku

Rangi and Papa were separated by their children in order to bring light into the world. There was much blood shed during this separation. The blood of Ranginui is sometimes seen as a warm red glow in the sky. The Māori call this papakura and they look to it for signs and omens. The blood of Papatuanuku, the Mother Earth, flowed into the earth itself and became red clay.



Kokowai is used in a number of traditional ceremonies, and when applied along with a karakia (Māori prayer/ blessing) it becomes tapu (sacred). The kokowai was burned in a fire, ground into a fine powder and mixed with shark oil to make paint. This paint was then used as a stain for wood carvings and for kowhaiwhai patterns painted on the rafters of meeting houses.

◆ **New Zealand artist** James Ormsby explores kowhaiwhai patterns in his drawings and in his sculptural works that he calls Māorigami! .

http://www.maori.info/maori_art.htm

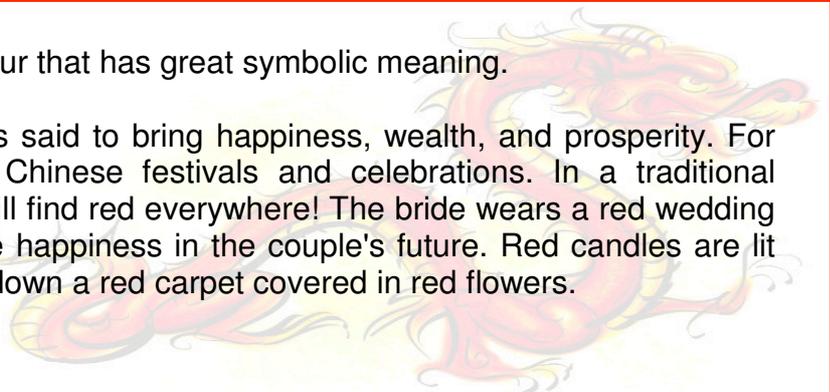
CHINESE RED

In China, red is a very important colour that has great symbolic meaning.

Red is a symbol of good luck and is said to bring happiness, wealth, and prosperity. For this reason red appears in many Chinese festivals and celebrations. In a traditional Chinese wedding for example you will find red everywhere! The bride wears a red wedding dress to bring good luck and ensure happiness in the couple's future. Red candles are lit and the bride and groom even walk down a red carpet covered in red flowers.

THE CHINESE FIRE DRAGON

Red Dragons are another popular Chinese symbol. The *Fire Dragon* is the most extroverted and competitive of Chinese dragons. He is an ambitious character and can be quite short tempered. Associated with summer and the south, *Red Fire Dragons* symbolise passion and strength.



TO MAKE A FIRE DRAGON

You will need:

- Thin A4 yellow and white card
- Scissors
- Coloured pencils or paint
- Glue or double sided tape
- A pencil
- Red yellow and black felt tips
- Sticky tape
- Kebab sticks

Prior to making:

Students need to research and design their Fire Dragon.

Making your Fire Dragon:

1. Cut out a strip of white card approx 7x30cm long.
This will be your Fire Dragon's body.

2.



Using yellow and red paint you are going to paint your dragon's body tonally from light to dark.

Begin painting with yellow and gradually mix more red into the yellow as you go along. Apply the paint thickly using long horizontal brush marks.

You can use a clean damp brush to blend your brush strokes if you need.

3.



Fold your piece of yellow A4 yellow card in half. This will provide you with two matching sides of the head when you cut it out. On your card draw out the profile of your dragons head.

Colour this in with your choice of colour pencils, paint, or felt tips. Use fiery red, yellows, and oranges.

4.

Repeat this process with the tail. Cut your shapes out.

You should have two sides of a head and tail like this. ►



5.



Fold the strip that you painted for the body into a concertina.

Tape the cut out profile of your dragons head to the red end of your painted strip. Tape a kebab stick onto this also so that you can move your dragon's body.

Repeat this for the tail.

Glue or stick using double sided tape the matching sides of your head and tail onto the other side.

6.



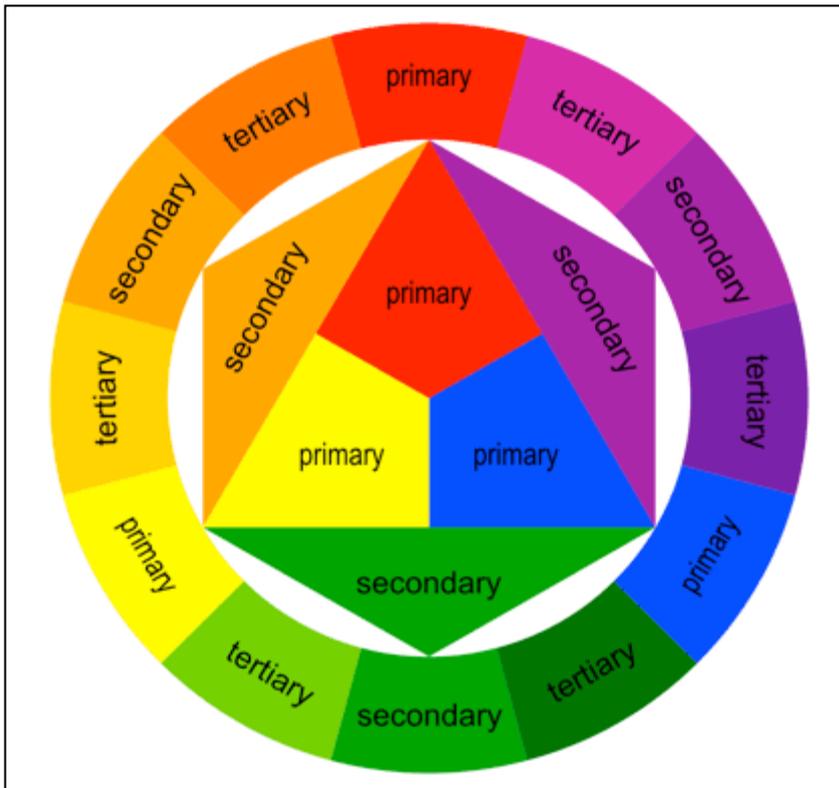
You now have a wonderful *Chinese Fire Dragon!*

Put on some beautiful Chinese music and make your *Fire Dragon* dance and fly around the room!

EXTENSION ACTIVITIES

- ▶ **FIND OUT** more about dragons of the world, their different characteristics and cultural significance. What is the name of your local taniwha? Are there any other cultures that have red dragons?
- ▶ **RESEARCH** legends and stories about Chinese Dragons, and create a puppet show using your *Red Fire Dragons*.
<http://www.moonfestival.org/legends/dragon.htm>
- ▶ **RESEARCH** the amazing work of artist **New Zealand artist** Yuk King Tan. **Find out** how her artwork explores her Chinese and New Zealand heritage. **Explore** making sculptural objects in her style.
- ▶ **EXPLORE** using colour tonally, blending different shades (refer to the Colour Tonal Scale activity!). What sort of colours do you create if you paint a tonal scale using red and blue, or red and green? Green is the complementary opposite to red – find out more about how these two colours relate to each other. For good resources on colour theory go to -
<http://www.princetonol.com/groups/iad/lessons/middle/arted.htm>

THE COLOUR WHEEL



PRIMARY COLOURS

Primary colours are red, yellow, and blue. They can't be mixed from any other colour combinations. Primary colours are the colours from which all other colours are made.

SECONDARY COLOURS

Secondary colours are created by mixing the primary colours together. They are - purple, orange, and green.

TERTIARY COLOURS

Tertiary colours sit between the primary and secondary colours, and are created by mixing a primary with a secondary colour.

These colour combinations are simply referred to as 'red purple', 'red orange', 'blue purple' etc....

There can be endless combinations of tertiary colours depending on how they are mixed.

COMPLEMENTARY COLOURS

Complementary colours are PRIMARY colours and the colours found opposite them on the colour wheel. These are *yellow & purple*, *blue & orange*, and *red & green*. When used together complementary colours are extremely vibrant, bold, and heavily contrasting. Complementary colours are useful when you want something to stand out!

New Zealand artist Gretchen Albrecht uses complementary colours in many of her abstract paintings to create contrast and a sense of depth.

ANALOGOUS COLOURS

Analogous colours are the colours found right next to each other on the colour wheel e.g. red and orange, blue and green, and they usually go together extremely well.

Analogous colours work in harmony and can help an artist create a sense of calm in their work. Unlike complementary colours analogous colours have very little contrast to each other.

New Zealand artist Colin McCahon uses red and orange in his atmospheric painting *Red and Black Landscape* to create a soft yet unsettling blood red sky. **New Zealand Photographer** Anne Noble uses analogous colours in her photograph *Ruby's Room #2*, where she has photographed her daughter Ruby chewing lollies, to create a strange yet yummy effect.

MORE ABOUT

COLOUR FIELD PAINTINGS

A *Colour Field* painting consists of large areas of pure, single colour. Though they may look simple, *Colour Field* paintings reflect an artist's ability to use certain colours in a way that they captivate the viewer.

Playing on our emotions, *Colour Field* paintings tap into our instinctively human responses to colour.

A **New Zealand artist** famous for painting in this manner is Colin McCahon. In many of McCahon's *Colour Field* paintings we view simple blocks of colour, yet the emotion conveyed in his work is powerful and engrossing.



White Centre, 1950,
Mark Rothko

A famous American painter who is said to be the father of *Colour Field* painting is *Mark Rothko*. He is quoted as having said "*The fact that people break down and cry when confronted with my pictures shows that I can communicate those basic human emotions. The people who weep before my pictures are having the same religious experience I had when painting them*".



Untitled, 1949,
Mark Rothko

In *Colour Field* paintings colour dominates the painting, over texture and brushwork (though these elements can be used to enhance the overall mood of the painting). *Colour Field* paintings are usually very large so that when you are standing in front of a *Colour Field* painting you are engulfed by it - your entire field of vision is filled with colour.

HOW TO

CREATE A CLEVER COLOUR FIELD PAINTING

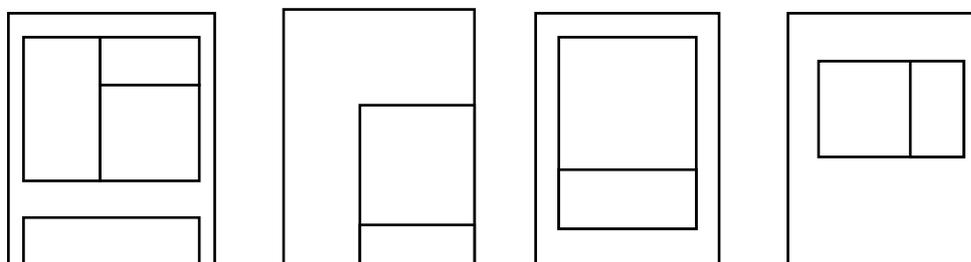
Materials Needed

- A1 sheets of white cartridge paper (*Colour Field* Paintings work best on large scale)
- Acrylic paint
- Something to mix your colours on
- Large soft brushes
- Newspaper to cover the tables

Prior to making:

First draw some compositional sketches planning how and where you are going to place your rectangles or squares on the page. Consider balance and symmetry. Keep them simple. Choose a composition to use for your painting that is pleasing to look at. Consider why it is pleasing to look at it - is it balanced, symmetrical, do the horizontal lines create a sense of harmony etc!

Possible Compositions



CLEVER COLOUR FIELD PAINTING!

- 1) Decide which section of *analogous colours* you would like to work with from the colour wheel.

Select two primary colours and a secondary colour e.g. red, orange and yellow, blue, purple and red, or blue, green and yellow.

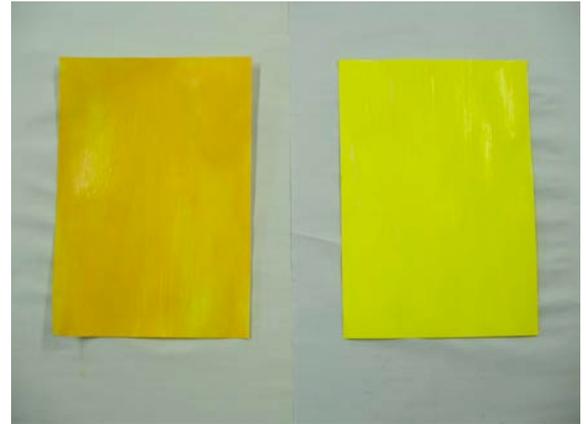
(You may wish to create a series of small A5 colour field paintings to explore different colour combinations and paint techniques before completing your large painting!)

2)

Paint the surface of your A1 sheet of paper with the colour that you wish to use as your base colour.

(Remember that the colour that you lay down first will affect all of the colours that you paint on top of it e.g. yellow on top of red will go orange etc).

It is ok if this layer is a little uneven as it will give the painting a soft, resonant quality, typical of a *Colour Field* painting.



Warm yellow & Cool yellow

3)

Now you have a base colour to work with start adding your squares and rectangles. Layer these one on top of the other. Apply some layers of paint thickly and some thinly, so that you can see layers of colour coming through.

(It is best to allow each layer to dry before adding the next. A way around this is to work on several paintings at a time. However, you can experiment with blending colours while the paint is wet if you wish!)



TRY

- ▶ **Experimenting** with different painting techniques - dribbling, stippling, using sponges and rollers. (Check out American abstract expressionist painter Jackson Pollock at http://en.wikipedia.org/wiki/Jackson_Pollock)
- ▶ **Mix** PVA glue in with your paint to create beautiful shiny glazes that you can layer on top of each other.
- ▶ **Explore** different compositions using other shapes, and patterns. You could create a kowhaiwhai or Polynesian patterned *Colour Field* painting.
- ▶ **Create** a textural collaged surface to paint on.
- ▶ **Explore** different colour combinations and different shaped paper similar to **New Zealand artist** Gretchen Albrecht.

TONE, TINTS AND SHADES.

COLOUR TONAL SCALES

Colour can be used TONALLY to shade from light to dark. Artists use tone in their paintings, drawings, prints, and photos to create a sense of form and make things look three dimensional.

A fantastic **New Zealand artist** who is well known for his clever use of tone, is Michael Smither. Smither rarely uses black in his paintings, instead he uses pure colour to describe shadows and give his subject matter form.

Good New Zealand Artists to look at who use tone are:
 ~ Sofia Minson (Portraits).
 ~ Stanley Palmer (Landscapes).
 ~ Robin Kahukiwa (Māori figurative images).



Materials needed

To create colour tonal scales:

(See how to make a Fire Dragon for an example of a painted tonal scale.)

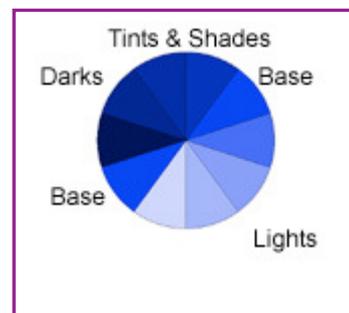
- Primary coloured paints
- Brushes
- Jars of water
- Strips of paper (heavy duty cartridge is best)
- Newspaper (to cover tables)
- Paint mixing palates (you can use ice cream container lids, or old bits of white card)

Steps:

1. Take your strip of paper and divide it up into 9 sections.
2. Choose two primary colours to work with and paint one into each end section of your tonal scale e.g. red at one end and yellow at the other.
3. On your paint palate mix these primary colours together to create your secondary colour and paint this into the centre section of your tonal scale e.g. orange.
4. You are then going to fill the sections in between the primary and secondary colours by gradually mixing the secondary colour into the primary.

TINTS AND SHADES

Tints and shades are also used to paint tonally. A TINT is created by adding WHITE to a colour, and a SHADE is created by adding BLACK.



TRY

► **CREATING** a tonal scale using *Tints* and *Shades*.

► **MIXING** *complementary opposites* to create a tonal scale. E.g. Red & Green. **SEE** what happens to the colours!

► **CREATE** a class 'colour quilt' by placing all of your tonal scales together, side by side, on the classroom wall. Which colours go well together? Can you create a huge tonal scale using your individual tonal scales?

CURRICULUM LINKS

Learning Areas:

Visual Arts

- Understanding the Arts in context • Developing Practical Knowledge • Developing ideas • Communicating and Interpreting.

Science

- Investigating in Science / Earth systems • Communicating in Science / Physical inquiry and physics concept • Participating and contributing / Chemistry and *society*.

KEY COMPETENCIES

- Managing Self • Relating to others • Using language, symbols and texts
- Participating and contributing • Thinking.

WORDBANK

Primary & Secondary

♦ Pigment	The colour used in paint.
♦ Symbol	A symbol is something such as an colour, picture, written word, sound or particular mark that represents something else by association, resemblance, or convention, e.g. the colour RED represents love.
♦ Primary Secondary & Tertiary Colours	See 'Colour Bites' for definitions.
♦ Analogous	See 'Colour Bites' for definitions.
♦ Complementary Colours	See 'Colour Bites' for definitions.

REFERENCES, RESOURCES, WEBLINKS

YUK KING TAN

www.christchurchartgallery.org.nz/Collection/Infosheets/99_63.pdf

JAMES ORMSBY

http://www.maoriart.org.nz/profiles/james_ormsby

COLIN MCCAHOON

<http://www.mccahon.co.nz/>

MARK ROTHKO

http://www.artinthepicture.com/artists/Mark_Rothko/

Pigments

<http://www.theartgallery.com.au/kidsart/learn/pigment/>

Tino Rangatiratanga flag

http://www.fotw.net/flags/nz_mao.html

Kokowai

http://www.maori.info/maori_art.htm

Dragons

<http://www.moonfestival.org/legends/dragon.htm>

Colour Theory

<http://www.princetonol.com/groups/iad/lessons/middle/arted.htm>

Colour Field Painting

<http://www.artlex.com/ArtLex/c/colorfieldpainting.html>

http://en.wikipedia.org/wiki/Jackson_Pollock