

The Arts Unit Learning Hub  
On line arts education support  
wherever & whenever you need it.

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This is a summary transcript of the Learning Hub eModule:

**'Extending Practical Artmaking Skills – Using Wire as a Sculptural Medium 30 minutes**

### ***1.1 Title Slide***

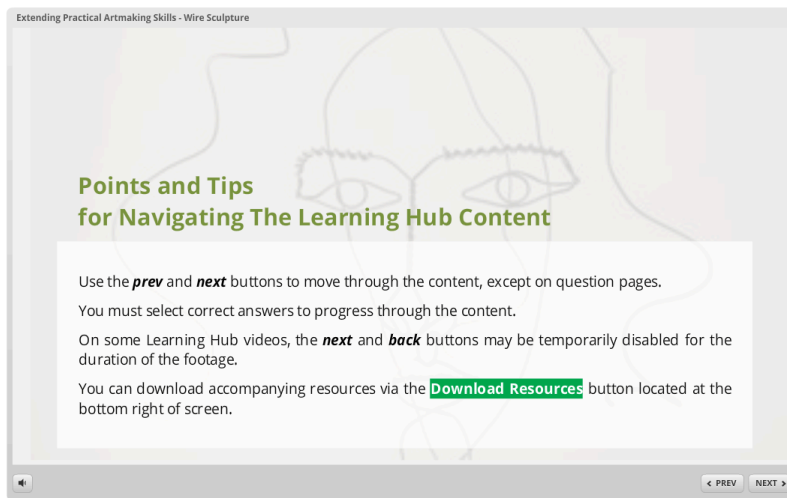
**'Extending Practical Artmaking Skills – Using Wire as a Sculptural Medium 30 minutes**



The title slide features a green background with several wire sculpture sketches of faces. In the top right corner, there is a green circle with the word "eModule" in white. Below this, the title "Extending Practical Art making" is displayed in a white box, followed by "Wire Sculpture" in a grey box. A black button with the text "Start Lesson" is positioned in the bottom right. At the bottom left, the "the arts unit" logo and "Learning Hub" text are shown. On the bottom right, it states "Time required - 30 minutes" and "Extending Practical Art making series".

## 1.2 Navigation Instructions Slide

Use the 'prev' and 'next' buttons to move through the content. You must answer questions correctly to advance. Download accompanying resources via the download button located bottom right of the screen.



## 1.3 Introduction

In this lesson you will explore aluminum wire as a medium for creating a sculpture. Working with wire provides students with a great opportunity for problem solving as they consider line, space, shape, weight and balance. Aluminum wire can be easily adapted to your classroom as it's a pliable material that can be cut with scissors and is suitable for all age groups. You will learn how artists have used wire in their work and learn how to create a continuous line drawing. You will then be shown how to manipulate the wire to create a continuous line portrait. There are accompanying resources for you to further investigate other artists, continuous line drawing as well as some useful links.

For more information about Operation Art go to this webpage: [opart.artsunit@det.nsw.edu.au](mailto:opart.artsunit@det.nsw.edu.au) or visit <https://www.artsunit.nsw.edu.au/visual-arts/operation-art/operation-art-professional-learning>

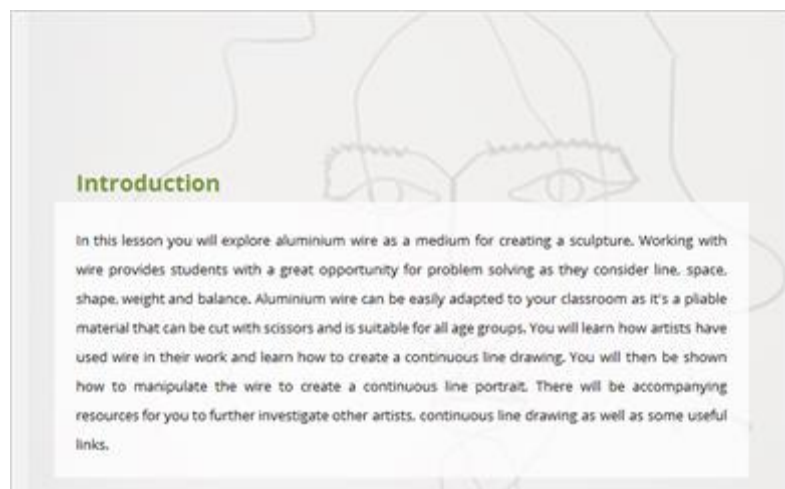
### Teaching Standards

2.1.2 Apply knowledge of the content and teaching strategies of the teaching area to develop engaging teacher activities.

3.1.2 Set explicit, challenging and achievable learning goals for all students.

4.2.2 Establish and maintain orderly and workable routines to create an environment where student time is spent on learning tasks.

6.2.2 Participate in learning to update knowledge and practice targeted to professional needs and school and /or system priorities



### ***1.4 Video 1 - Artist Study Alexander Calder***



### **1.5 Which statements refer to the sculptures of Alexander Calder?**

*(Multiple Response, 10 points, 1 attempt permitted)*

Choice
They were hung with wire
They had a flat metal base
They used different coloured wire
sometimes feature flat pieces of metal that were wired into the sculpture

### **1.6 True/False – Calder's sculptures were fixed in space?**


*(True/False, 10 points, 2 attempts permitted)*

#### **Did You Know Pop-Up**

Marcel Duchamp's Bicycle Wheel (1913) is not only famous for being the first example of a "readymade" sculpture (an art object comprised of commonplace parts not manufactured by the artist), but also for being the first work of Kinetic art because the wheel can be spun.

**Did you know?**

Marcel Duchamp's Bicycle Wheel (1913) is not only famous for being the first example of a "readymade" sculpture (an art object comprised of commonplace parts not manufactured by the artist), but also for being the first work of Kinetic art because the wheel can be spun.



Select an answer then click the question mark.

**1.7 True/False - Calder's sculptures were suspended in space, allowing them to move and become a Kinetic sculpture?**

(True/False, 10 points, 2 attempts permitted)

**Feedback on correct answer:** Calder's first Kinetic Sculptures were actually motorised or used hand-cranked mechanisms. However, he is most famous for his non-mechanised mobiles.

**1.8 What is it that brings Calder's otherwise flat and two dimensional work to life?**

(Pick One, 10 points, unlimited attempts permitted)

Choice
The shadows that are cast
The light hitting the negative shapes
The movement of the shadows and sculpture
All of the above

**Feedback when correct**

The sculpture interacts with the surrounding space through shadow and movement.

What is it that brings Calder's otherwise flat and two dimensional work to life?



- A** The shadows that are cast
- B** The light hitting the negative shapes
- C** The movement of the shadows and sculpture
- D** All of the above

**EXPLORE**

**NEXT SLIDE**

## EXPLORE Pop-Up

### Student Activity

#### EXPLORE

You may consider inviting your students to play with the shadows cast in their sculpture. Cast the wire shadows onto paper and draw over the shadow lines. Repeat with different angles, overlapping the lines. Combine and experiment with a variety of drawing media such as charcoal, watercolour pencil and water soluble graphite.

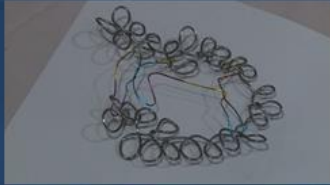
**Tip:** The closer the sculpture is to the paper the sharper the shadow lines cast, and the further away, the softer and thicker the line. Students may replicate the lines cast by choosing the most appropriate media. For example, blurring charcoal for distant shadows.

What is it that brings Calder's otherwise flat and two dimensional work to life?

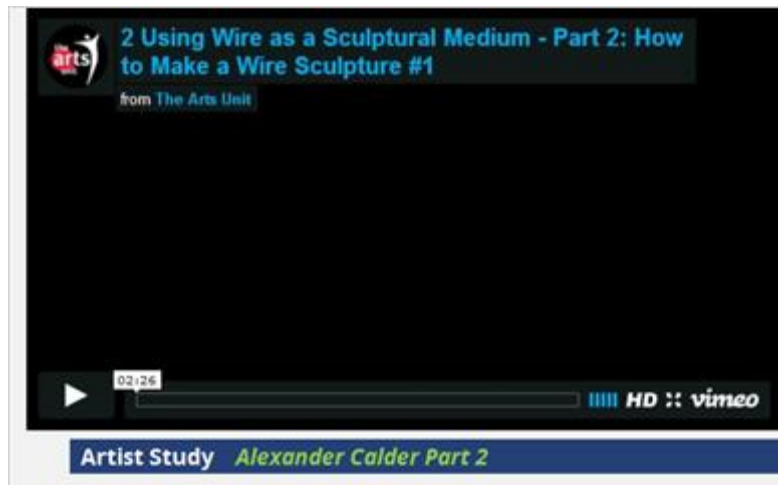
### STUDENT ACTIVITY

You may consider inviting your students to play with the shadows cast in their sculpture. Cast the wire shadows onto paper and draw over the shadow lines. Repeat with different angles, overlapping the lines. Combine and experiment with a variety of drawing media such as charcoal, watercolour pencil and water soluble graphite.

**Tip:** The closer the sculpture is to the paper the sharper the shadow lines cast, and the further away, the softer and thicker the line. Students may replicate the lines cast by choosing the most appropriate media. For example, blurring charcoal for distant shadows.



## 1.9 Video Artist Study Alexander Calder - Part 2



## 1.10 Drag and Drop Activity

*(Drag and Drop, 10 points, unlimited attempts permitted)*

**Drag and drop activity**  
Place the following into the correct sequence for creating a continuous line drawing

Finish after 1 minute

Do not look at your drawing only look at the face you are drawing

Do not take your pen off the page

Decide on the starting point for your drawing

Place your pen on the corresponding on the page

Look at the person opposite you and begin to draw them

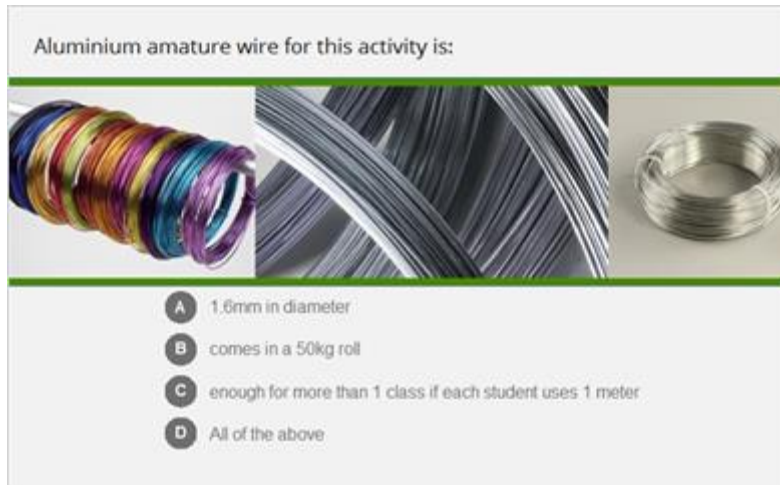
- 1 Step 1
- 2 Step 2
- 3 Step 3
- 4 Step 4
- 5 Step 5
- 6 Step 6

Drag Item
Do not take your pen off the page
Look at the person opposite you and begin to draw them
Do not look at your drawing only look at the face you are drawing
Decide on the starting point for your drawing
Finish after 1 minute
Place your pen on the corresponding on the page



### 1.11 Aluminium amature wire for this activity is:

(Pick One, 10 points, unlimited attempts permitted)



Choice
1.6mm in diameter
Comes in a 50kg roll
Enough for more than 1 class if each student uses 1 metre
All of the above

### 1.12 Safety

#### SAFETY

Students should sit separately. You may need to use floor space and outside space if required.

This allows more arm space for moving and keeps dangerous wire ends away from others.

TIP: Make the rule

**NO WIRE ABOVE THE SHOULDERS**

### SAFETY

Students should sit separately. You may need to use floor space and outside space if required.

This allows more arm space for moving and keeps dangerous wire ends away from others.



SAFETY  
TIP

## Slide Pop-Up

### SAFETY

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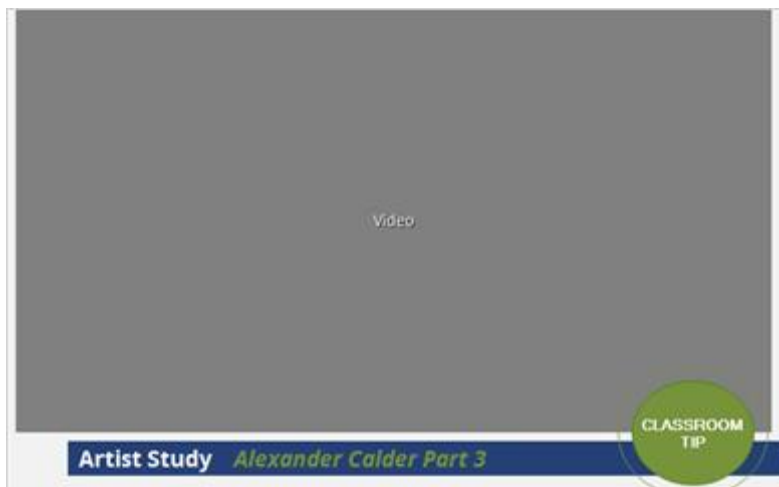
This allows more arm space for moving and keeps dangerous wire ends away from others.



TIP:  
Make the rule:  
**NO WIRE ABOVE THE SHOULDERS**

SAFETY  
TIP

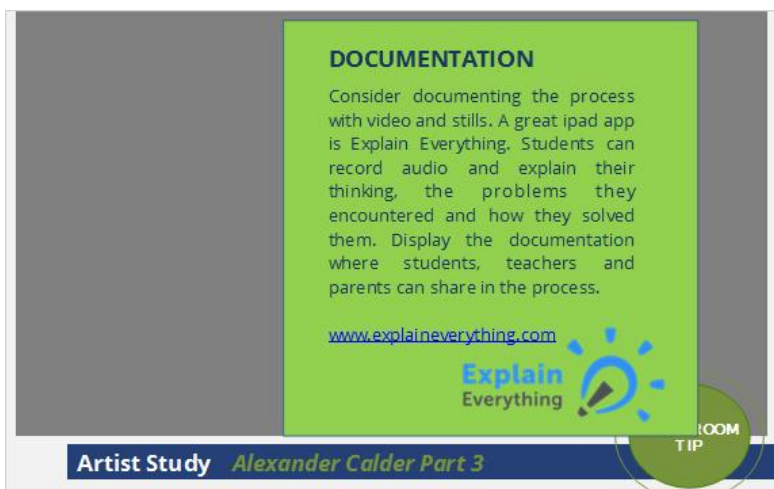
### 1.13 Video Artist Study Alexander Calder Part 3



#### Slide Pop-Up Classroom Tip

##### Documentation

Consider documenting the process with video and stills. A great ipad app is Explain Everything. Students can record audio and explain their thinking, the problems they encountered and how they solved them. Display the documentation where students, teachers and parents can share in the process.



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Consider documenting the process with video and stills. A great ipad app is Explain Everything. Students can record audio and explain their thinking, the problems they encountered and how they solved them. Display the documentation where students, teachers and parents can share in the process.

[www.explaineverything.com](http://www.explaineverything.com)

**Explain Everything**

Artist Study Alexander Calder Part 3

CLASSROOM TIP

## 1.14 Drag and Drop Activity

(Drag and Drop, 10 points, unlimited attempts permitted)

**DRAG AND DROP ACTIVITY**  
Place the following into the correct sequence for creating a wire sculpture

Begin your wire sculpture from where you started your continuous line drawing.

Use the wire as if it were the continuous line in your drawing.

Keep going until you run out of wire.

Hang your Calder inspired mobile in a place where it can be activated by light, shadow and movement.

Create detail with with florist wire, beads and buttons.

Bend, coil and twist your wire.

Consider pulling certain features forward to make it more 3D.

1

2

3

4

5

6

7

Step 1

Step 2

Step 3

Step 4

Step 5

Step 6

Step 7

Drag Item
Keep going until you run out of wire.
Bend, coil and twist your wire.
Use the wire as if it were the continuous line in your drawing.
Hang your Calder inspired mobile in a place where it can be activated by light, shadow and movement.
Begin your wire sculpture from where you started your continuous line drawing.
Create detail with with florist wire, beads and buttons.
Consider pulling certain features forward to make it more 3D.

### 1.15 Video Artist Study Alexander Calder Part 4



### 1.16 Conclusion

We hope this video has provided you with the confidence to try this activity out in your own classroom.

Remember that some students will have a natural flair for sculpture, so it's important to balance your Visual Arts program with opportunities for students to explore 3D materials.



## **1.17 Resources & Links**

### **ACCOMPANYING RESOURCES**

Please look at our accompanying resources to investigate other sculptors using wire, Kinetic Art and other useful links for your Visual Arts planning.

**You may also like to investigate the work of Contemporary Wire Sculptors:**

David Oliveira

<http://davidoliveiraescul.wix.com/davidoliveira>

Gavin Worth

<http://www.gavinworth.com>

**If you wish to investigate Kinetic Sculpture further, here are some links to get started:**

Kinetic Art <http://www.theartstory.org/movement-kinetic-art.htm>

Theo Jansen <https://vimeo.com/48572867>

Anthony Howe <http://www.howeart.net/>

Mari Velonaki <http://mvstudio.org/>

Other useful links:

The **MCA** ( <http://www.mca.com.au/learn/learning-resources/> ) offers some great activity ideas for teachers to try in the classroom. You can also view current programs if **here** ( <http://www.mca.com.au/learn/schools> ) if you wish to visit with a class.

The **AGNSW** ( <http://www.artgallery.nsw.gov.au/education/> ) also has some fantastic **learning resources** ( <http://www.artgallery.nsw.gov.au/education/learning-resources/> ) that you can use in the classroom.

**Biennale of Sydney** <https://www.biennaleofsydney.com.au/20bos/education/educator-resources/>

A great resource for Primary and Secondary Educators. It also has links to resources from previous years.

**Explain Everything** is an ipad app that is great for students to record their process. There is a handy tutorial [here](https://www.youtube.com/watch?v=qpbw7gAJJ48) ( <https://www.youtube.com/watch?v=qpbw7gAJJ48> ).

**ACCOMPANYING RESOURCES & USEFUL LINKS**

Accompanying resources are available via the download button.

You may also like to investigate the work of Contemporary Wire Sculptors:

David Oliveira link to [davidoliveiraescul.wix.com/davidoliveira](http://davidoliveiraescul.wix.com/davidoliveira)

Gavin Worth link to [gavinworth.com](http://gavinworth.com)

**If you wish to investigate Kinetic Sculpture further, here are some links to get started:**

Kinetic Art link to [theartstory.org](http://theartstory.org)

Theo Jansen link to [Theo Jansen](http://TheoJansen)

Anthony Howe link to [howeart.net](http://howeart.net)

Mari Velonaki link to [mystudio.org](http://mystudio.org)

**Other useful links:**

The **MCA** [learning resources](#) some great activity ideas for teachers to try in the classroom. You can also view current programs [here](#) if you wish to visit with a class.

The **AGNSW** [education](#) also has some fantastic [learning resources](#) that you can use in the classroom.

**Biennale of Sydney** [educator resources](#)  
A great resource for Primary and Secondary Educators. It also has links to resources from previous years.

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## 2.1 Results Slide

*(Results Slide, 0 points, 1 attempt permitted)*

**Congratulations**



You have completed  
**Extending Practical Artmaking**  
*Module 1 – Wire Sculpture*

This lesson will be added to your learning log.

[Review Quiz](#) [Print Results](#) [Retry Quiz](#)