



Surrey Craft Legacies

Historic Stained Glass Window Making

Teacher Resource Guide

KS3 & KS4 | Art & Design | History | Design & Technology | Careers

About this pack

A printable classroom resource to accompany the oral history film with Rachel Mulligan. The pack introduces historic stained glass window making, explains why the craft is endangered, and offers safe classroom activities based on design, observation, discussion and research.

Important school safety note

This resource does not ask pupils to cut glass, handle lead, solder, engrave glass or use a kiln. The activities are safe alternatives based on drawing, design, colour, research and discussion. Practical work with glass, lead, soldering or kiln firing should only take place with qualified specialist supervision, appropriate risk assessment and school approval.

Led by New Ashgate Gallery. Funded by the Community Foundation for Surrey. Made possible by The National Lottery Heritage Fund. In partnership with Surrey History Centre.

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Quick-use summary

Item	Detail
Film	Rachel Mulligan, historic stained glass window maker
Resource type	Teacher guide, discussion prompts, design activities and evaluation prompt
Suggested time	45-60 minutes, or longer as part of an Art & Design project
Main audience	KS3 and KS4. Adaptable for upper KS2, SEND settings, libraries and community groups
Main subjects	Art & Design, History, Design & Technology, Careers
Core question	Why do heritage craft skills matter, and how can we help keep them visible?

At a glance: what teachers can do

- Show the short film and pause at the suggested points.
- Use the vocabulary table to introduce specialist terms.
- Ask pupils to sequence the making process.
- Set a design brief for a safe, paper-based stained glass panel design.
- Use the debate or research task for History, Careers or enrichment work.
- Complete the feedback form so the project can evidence school and community use.

Teacher preparation

Before the lesson

- Watch the short film in advance.
- Choose one or two activities from this pack, depending on the time available.
- Print the pupil worksheet and the process cards if using them.
- Prepare images, film stills or paused moments from the film showing tools, materials and stages of the process.
- Check that all suggested practical tasks are suitable for your setting, age group and school risk assessment.
- Do not use specialist tools, sharp blades, glass, lead, soldering equipment, lathes, carving tools or kilns unless working with a qualified professional and an approved school risk assessment.
- For a shorter lesson, use the film, discussion questions and process cards only.
- For a longer lesson, add the design, research or debate activity.

Suggested lesson format

- 15-20 minutes: Watch the film and discuss key questions.
- 20-30 minutes: Use the process cards or vocabulary task.
- 45-60 minutes: Add a design or research activity.
- Longer project: Develop a finished design, presentation or written response.

General success criteria

Teachers may adapt these to suit the age group. By the end of the lesson, pupils can:

- identify the craft shown in the film
- name at least three tools, materials or stages in the process
- explain one reason the craft is endangered or at risk
- describe how the craft connects to heritage, place or community
- use specialist vocabulary accurately
- create a design, response or research outcome linked to the film
- explain how their design or response was inspired by the maker's process

- work safely using classroom-appropriate materials

For KS4 or extension work, pupils can also:

- compare the craft with another heritage or contemporary process
- explain how function, material and audience affect design decisions
- discuss why specialist skills should or should not be protected
- evaluate their own work using references to process, material and purpose

About Surrey Craft Legacies

Surrey Craft Legacies is a New Ashgate Gallery project exploring heritage and endangered craft skills in Surrey. The project includes oral history films, inclusive workshops, a public exhibition and a digital archive with Surrey History Centre.

This teacher pack supports the learning strand of the project. It is designed to help schools and community groups use the oral history film as a practical teaching resource.

About the film

The film features Rachel Mulligan, a stained glass artist with more than 30 years of experience. Rachel introduces the process of historic stained glass window making. She explains how designs are developed, how coloured glass is selected and cut, how painted detail is built up through kiln firing, and how separate pieces of glass are joined with lead to make a finished panel.

Historic stained glass window making is listed as an endangered craft by Heritage Crafts. It is a specialist skill used in architectural settings, including churches, public buildings and historic houses. It combines design, drawing, colour, materials knowledge, hand skills, conservation, collaboration and problem-solving.

Learning aims

By using this film and resource, pupils should be able to:

- understand what historic stained glass window making involves
- identify key tools, materials and stages in the making process
- explain why some craft skills become endangered
- discuss how heritage craft connects to place, history, architecture and community memory
- use visual research to develop a design idea for a specific location or audience
- consider creative careers linked to craft, conservation, public art and heritage

Curriculum links

Subject area	Useful links for teaching
Art & Design	Observation, drawing, colour, line, shape, light, composition, visual research, craft processes, historical and contemporary contexts.
Design & Technology	Material choice, design for a user or site, structure, tools, function, making processes and evaluation.
History	Local and national heritage, buildings as historical evidence, change and continuity, conservation and cultural memory.
Careers	Creative careers, specialist training, craft business, conservation, museums, archives, public art and heritage work.

Key vocabulary

Term	Meaning	Why it matters
Historic stained glass window making	The designing and making of painted and leaded stained glass windows for architectural settings, often historic buildings and churches.	This is the endangered craft explored in the film.
Mouth-blown glass	Glass made by a glassblower, often with subtle variations in colour, surface and thickness.	These variations affect how light passes through the glass.
Flashed glass	Glass made with a thin layer of coloured glass fused onto another colour, often clear glass.	The top layer can be engraved or removed to create detail and tonal effects.
Cartoon	A full-size design drawing used to plan the stained glass window.	It guides the cutting, painting and leading stages.
Glass painting	Painting detail onto glass using specialist glass paints or enamels.	Painted detail is usually fired in a kiln so it becomes durable.
Kiln firing	Heating glass in a specialist kiln to fix painted detail.	A panel may need several firings to build up detail.
Leading	Joining pieces of glass using strips of lead, known as lead comes.	This gives the panel structure and creates the strong lines seen in stained glass.
Soldering	Joining metal parts together using heat and solder.	This fixes the lead joints in place.
Cementing	Applying a waterproofing compound into the leaded panel.	This helps make the panel weatherproof and stable.
Conservation	The care, repair and preservation of historic objects, buildings or materials.	Historic stained glass often needs specialist conservation knowledge.
Commission	A paid request for an artist or maker to create work for a client, building or organisation.	Many stained glass windows are made for specific places and people.

What is historic stained glass window making?

Historic stained glass window making is the design and making of painted and leaded stained glass windows for buildings. It is often associated with churches, cathedrals, civic buildings and historic houses, but stained glass can also appear in homes, schools and public spaces.

The craft brings together several skills. A maker may need to draw, design, cut glass, paint with glass enamels, use a kiln, lead separate pieces together, solder joints and finish the panel so it is strong and weatherproof.

The finished window changes with the light. This makes stained glass different from many other art forms. It is not only about surface colour. It also depends on transparency, shadow, reflection, architecture and the movement of the sun.

Why is the craft endangered?

Historic stained glass window making is endangered because it relies on specialist skills, materials, equipment and training.

Large painted and leaded windows can take years of practice to make well. The work can involve drawing, glass cutting, painting, kiln firing, leading, soldering, conservation and installation. There are fewer dedicated training routes than in the past, and many experienced makers are self-employed or work in small studios.

This does not mean that no one is making stained glass. It means that the specialist skills needed for historic painted and leaded windows are at risk if they are not taught, practised, commissioned and valued.

Watching the film

Before watching

- Where have you seen stained glass before?
- What do you think it is made from?
- What skills do you think a maker needs?
- Why might a window be important to a community or building?

While watching

Ask pupils to note:

- three materials Rachel uses
- three tools or pieces of equipment
- one part of the process that surprised them
- one reason the craft takes time to learn
- one question they would like to ask Rachel

The making process

Rachel describes a careful process with several stages. The exact process can vary depending on the commission, site and design.

1. **Site visit and brief:** The maker finds out where the window will be placed, who it is for and what the design needs to do.
2. **Research and design:** The maker develops ideas through drawing, colour studies and discussion with the client or community.
3. **Full-size drawing:** A full-size design is made to guide the cutting and assembly of the glass.
4. **Glass selection:** The maker chooses glass for colour, texture, transparency and how it responds to light.
5. **Cutting the glass:** Individual pieces are cut to fit the design.
6. **Engraving or removing flashed colour:** Where flashed glass is used, a tool can remove part of the coloured layer to create detail or tonal variation.
7. **Testing the composition:** Pieces may be arranged and checked against light to test colour balance and contrast.
8. **Painting and kiln firing:** Painted detail is added with specialist glass paint or enamel, then fired in a kiln. More than one firing may be needed.
9. **Leading:** The glass pieces are joined together with lead comes.
10. **Soldering:** The lead joints are soldered to hold the panel together.
11. **Cementing and finishing:** The panel is made firm and weatherproof, then cleaned and polished.
12. **Installation or display:** The finished panel is installed or prepared for exhibition.

Important safety note for schools

Professional processes shown in the film

Students should not cut glass, handle lead, solder, use engraving tools or operate a kiln unless the activity is led by a qualified professional and supported by the school's own risk assessment, appropriate supervision, PPE and safe working procedures. The activities below are designed as safe classroom alternatives. They focus on observation, design, colour, composition, research and critical thinking.

Classroom activity 1: Colour and light study

Time: 30-45 minutes

Materials: sketchbooks, pencils, coloured pencils, watercolours or felt-tip pens, printed or digital images of stained glass

Ask pupils to study a stained glass window. This could be from a local building, a photograph, a museum collection or a digital archive.

Pupils should make a small observational study and annotate:

- main colours
- areas of light and dark
- repeated shapes or patterns
- lead lines and how they divide the image
- details that suggest story, symbol, place or identity

Extension: Ask pupils to compare two windows from different periods. What has changed? What has stayed the same?

Classroom activity 2: Design a stained glass panel for a place

Time: 60-90 minutes, or longer as a design project

Materials: paper, tracing paper, black card or black paper strips, coloured pencils, collage papers, acetate if available

Pupils design a stained glass panel for a specific location. This could be a school entrance, library, community centre, hospital waiting room, place of worship, new public building or quiet space for reflection.

Pupils should produce:

- a short design brief
- research images or sketches
- a colour plan
- a final panel design
- annotations explaining their choices

Prompt questions:

- Who will see this panel?
- What mood should it create?
- What colours would work well with the space?
- What story, symbol or local detail could be included?
- How do the lead lines support the design?

Classroom activity 3: Process sequencing

Time: 20-30 minutes

Materials: printed process cards

Print the stages of the making process and cut them into separate cards. Pupils work in pairs or small groups to place them in the correct order.

Ask pupils to add:

- one tool or material linked to each stage
- one skill needed for each stage

- one stage that would need specialist training
- one stage that could be explored safely in school through drawing or design

Extension: Ask pupils to identify which stages are most connected to art, which to design, which to engineering and which to conservation.

Classroom activity 4: Endangered craft enquiry

Time: 45-60 minutes

Materials: internet access or printed research sheets

Using Rachel's film as a starting point, pupils research another endangered craft.

They should find out:

- what the craft involves
- where it is practised
- what tools and materials are used
- why it may be endangered
- who is working to protect it
- whether the craft could be useful in the future

Suggested presentation formats: one-page fact sheet, short presentation, poster, recorded audio guide or comparison table.

Possible comparison crafts include handloom weaving, straw working, basketmaking, chair making, silver spinning, signwriting, bookbinding and dry-stone walling.

Classroom activity 5: Debate

Debate question: Should endangered craft skills receive public funding and support?

Arguments for support	Arguments to question or test
Skills can disappear if they are not passed on.	Public money is limited.
Craft is part of local and national heritage.	Some crafts have fewer customers or uses today.
Traditional skills can support conservation, tourism and community identity.	Training specialist makers can be expensive.
Learning craft can improve confidence, wellbeing and practical skills.	New technologies may offer different solutions.
Historic buildings need skilled people to repair and care for them.	Not all heritage practices have equal public demand.

Ask pupils to write a short balanced response, then give their own view.

Access and adaptation notes

This resource can be adapted for different learning needs.

- use images before text
- pre-teach key vocabulary
- provide printed process cards
- allow verbal responses instead of written answers
- use larger text and high-contrast images
- offer a shorter version of the film task
- provide sentence starters for discussion
- allow pupils to work in pairs

- replace open research tasks with a guided worksheet

Sentence starters

- I noticed...
- The material I found most interesting was...
- This craft may be endangered because...
- The design would change if the window was for...
- One skill Rachel uses is...

Questions for reflection

KS3	KS4
What makes stained glass different from a painting?	How does Rachel's work combine design, craft and conservation?
Why does light matter in this craft?	How does working for a specific building or client affect creative choices?
Which part of the process do you think takes the most patience?	Why are specialist materials and training important in heritage craft?
Why might a maker need to understand both art and architecture?	How can traditional craft skills remain relevant today?
What would be lost if people stopped learning this skill?	Should endangered craft be protected because of its history, its future use, or both?

Careers link

Historic stained glass window making connects to several career routes, including:

- artist-maker
- stained glass designer
- architectural glass artist
- conservator
- heritage craftsperson
- museum or archive professional
- arts educator
- public art producer
- designer for buildings and public spaces

Discussion questions: What skills would you need for this career? What training route might you take? What personal qualities would help? How might a maker balance creative work with earning a living?

Using local heritage

Teachers may wish to connect this activity to local buildings and places. Possible local links include stained glass in churches or chapels, windows in civic buildings, public art in libraries, schools or community spaces, local craft makers and studios, Farnham's identity as a World Craft Town, and Surrey's wider heritage buildings and conservation needs.

Pupils could create a local heritage sketchbook page using photographs, drawings, maps, notes and colour studies.

Feedback and evaluation

Surrey Craft Legacies is a funded heritage project. Feedback helps New Ashgate Gallery understand how the films and resources are used.

Feedback link

After using this resource, please complete the short feedback form: <https://tinyurl.com/surreycraftlegacies>

We would like to know the school or group name, year group or age range, number of learners, how the film or resource was used, one thing learners gained from the activity, and any suggestions for improvement.

Teachers are also welcome to share examples of pupil work where school permissions allow.

Further resources for teachers

- [Heritage Crafts - Red List of Endangered Crafts](#)
- [Heritage Crafts - Historic Stained Glass Window Making](#)
- [The Stained Glass Museum, Ely](#)
- [Visit Stained Glass](#)
- [Historic England - education and heritage resources](#)
- [Surrey History Centre](#)
- [New Ashgate Gallery](#)

Project credits

Surrey Craft Legacies is led by New Ashgate Gallery. The project explores heritage and endangered craft skills through oral history films, inclusive workshops, a public exhibition and a digital archive.

Funded by the Community Foundation for Surrey. Made possible by The National Lottery Heritage Fund.

Digital archive partner: Surrey History Centre.

Community partners include DAiSY, Creative Response, Hale Community Centre, Farnham Library and Farnham Assist.

Film featuring: Rachel Mulligan

Resource produced by: New Ashgate Gallery / Surrey Craft Legacies

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Teacher notes

Printable pupil worksheet

Name: _____ Class: _____ Date: _____

Before watching

Where have you seen stained glass before?

During the film

Find and note	Your answer
Three materials Rachel uses	
Three tools or pieces of equipment	
One part of the process that surprised you	
One reason the craft takes time to learn	
One question you would like to ask Rachel	

Design task

Design a stained glass panel for a specific place. Think about audience, colour, light, symbols and lead lines.

Place: _____

Audience: _____

Mood or feeling: _____

Main colours: _____

Symbols or local details: _____

Sketch box:
