ENGLISH HERITAGE
EDUCATION

KS2
KS3

SPECIAL EXHIBITION RESOURCE

Circles of Stone: Stonehenge and Prehistoric Japan

環状列石：ストーン・ヘンジと先史時代の日本

(running from September 2022–August 2023)

This resource helps teachers plan a visit to the special exhibition 'Circles of Stone' on display at Stonehenge. Use this resource during and after your visit to help students get the most out of their learning.

GET IN TOUCH WITH OUR EDUCATION BOOKINGS TEAM:

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Step into England's story

Published September 2022

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An activity to help extend your students' learning back in the classroom.

ICON KEY

The icons below will help you quickly identify the types of activities and information presented.

KS2 KS3

WRITE SCIENCE CHALLENGE EXAMINE MAP ART GROUP ACTIVITY SPEAKING

An English Heritage partnership project with the Sainsbury Institute for the Study of Japanese Arts and Cultures.

Generously supported by the Ishibashi Foundation.

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PRE-VISIT
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Information you can use in the classroom before your visit.

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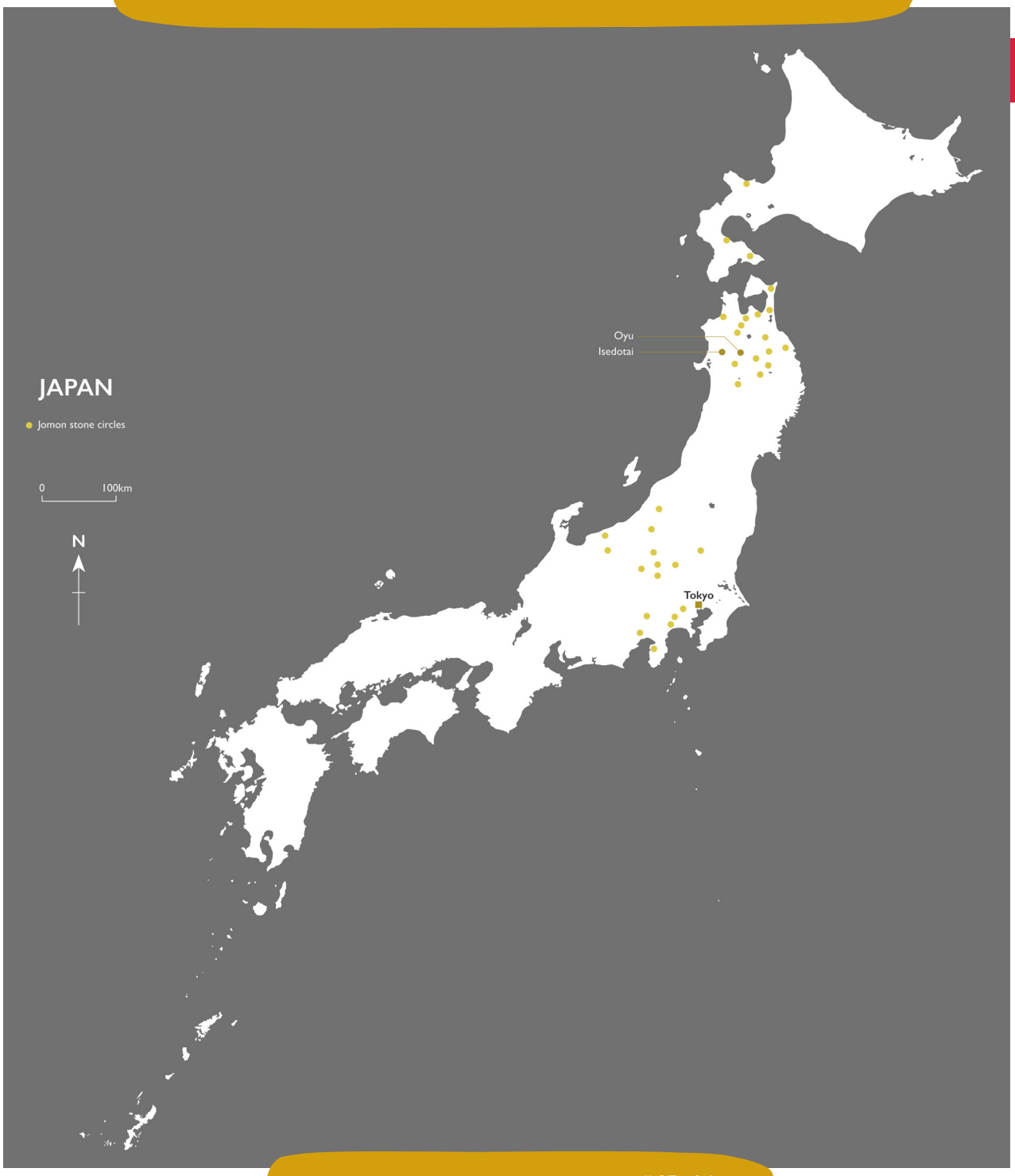
MAP OF JOMON STONE CIRCLES IN JAPAN



This map is from the exhibition and shows all 37 of the known stone circles built in the Jomon period in Japan.

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GLOSSARY
用語集

TRICKY TERMS AND WHAT THEY MEAN

Below is a list of words you might come across while exploring the special exhibition. Use this Glossary to find out what they mean.

archaeologists – people who learn about the human past by studying remains found in the ground, including objects, graves and evidence for buildings and activities

BC – an abbreviation for 'Before Christ' used in Britain and Europe to describe the years before the birth of Jesus Christ. This is thought to have occurred in c.AD 1, over 2,000 years ago. We have used BC dates for events during prehistory in Britain in this glossary.

BP – an abbreviation of 'before present', a term used by archaeologists to indicate when an event occurred in relation to the 1950s, when radiocarbon dating was introduced. BP dates are used throughout the exhibition. To enable comparison between events in Britain and Japan, we have used BP dates in our timeline.

Bronze Age (2300–800 BC) – the period in prehistory (before written history) that followed the Stone Age and came before the Iron Age, when most weapons and tools were made using copper and bronze rather than stone

cremation – the act of burning a body with flames to reduce it to small pieces of bone

dogu (土偶) – clay figurines that have been found in large numbers at Jomon settlements and stone circles. Many of them seem to be female and it is possible that they might have represented a spirit or earth goddess. Usually, dogu are found in pieces. They may have been intentionally broken and scattered during ceremonies.

Excavations at sites like the pit dwellings at Ofune in Japan can tell us more about how people lived in the past. © Hakodate Municipal Board of Education

excavation – the digging up and recording of archaeology

flame pots – highly decorative pottery made in the middle Jomon period, about 5,000 years ago. The clay is formed into elaborate shapes resembling flames projecting around the pot's rim. These vessels were used for cooking, perhaps during feasts or special occasions.

hunter-gatherer – in prehistory, this was someone who relied on hunting animals, fishing and foraging for wild plants for food. While the people who built Stonehenge were Neolithic farmers, the people building stone circles in Jomon Japan were hunter-gatherers.

Iron Age (800 BC–AD 43) – a prehistoric period that followed the Bronze Age, when weapons and tools were often made of iron

Jomon period – a period in Japanese prehistory between c.15000 BP and 2300 BP. The name 'Jomon' comes from the Japanese words for 'cord patterns' which were used to decorate pottery at this time.

The cord patterns on prehistoric Japanese pottery dating from c.15,000-2,300 years ago gave the Jomon period its name. © Kitaakita City Board of Education

latitude – the location of a place north or south of the equator, measured in degrees (0°- 90°)

monument – a structure built to mark something important, sometimes used for rituals or placed over a grave in memory of the dead

Neolithic (c.4000–c.2300 BC) – the 'New Stone Age', a period when the first monuments were built and farming was introduced as people grew crops and raised herds of animals for the first time in Britain

prehistory – the period in the past before writing was used. In Britain, this is split into three time periods: the Stone Age, Bronze Age and Iron Age.

ritual – a religious or spiritual ceremony where a series of actions are performed in a set order

sacred – having some special religious importance, often dedicated to a god or gods

solstice – the longest (summer) and shortest (winter) days of the year

Stone Age (c.800,000 years ago–c.2300 BC) – the period in prehistory made up of the Old (Paleolithic), Middle (Mesolithic) and New (Neolithic) Stone Ages, before metal was first used. The term 'lithic' means stone.

UNESCO – United Nations Educational, Scientific and Cultural Organization. An agency of the United Nations, part of UNESCO's work includes identifying and promoting internationally important heritage sites through its World Heritage List. Both Stonehenge and Avebury and the Jomon Prehistoric Sites in Northern Japan are designated as UNESCO World Heritage Sites.

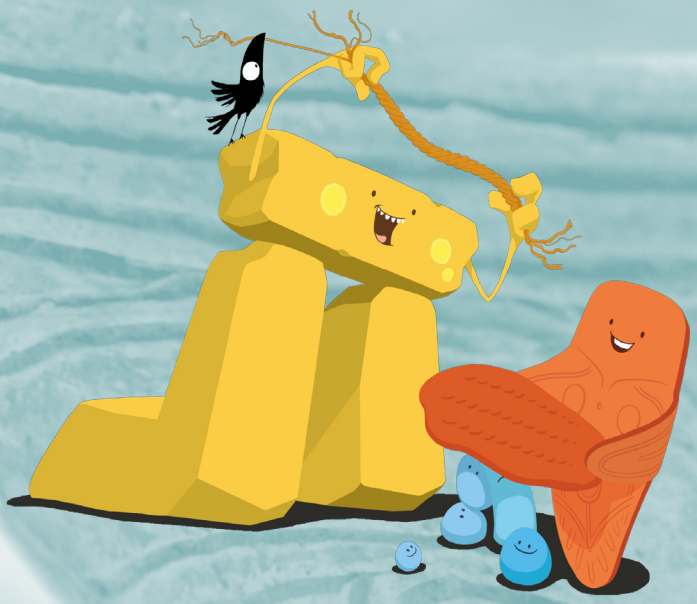
Komakino Stone Circle is one of the Jomon Prehistoric Sites granted World Heritage Site status in 2021. © Aomori City Board of Education

JOMON JAPAN

Incipient Jomon (15000–11000 BP)

Initial Jomon (11000–7000 BP)

Early Jomon (7000–5000 BP)



PREHISTORIC BRITAIN

15000 BP

10000 BP

Paleolithic (before 11000 BP)

Mesolithic (11000–6000 BP)

Early Neolithic (6000–5200 BP)

BP (BEFORE PRESENT) IS USED IN THE EXHIBITION TO SHOW WHEN EVENTS TOOK PLACE.
A MORE DETAILED DEFINITION OF THIS SYSTEM CAN BE FOUND IN THE GLOSSARY.

5500–4000 BP
Sannai Maruyama settlement is occupied.

Middle Jomon (5500–4500 BP)

5000–4700 BP
Flame pots are made.

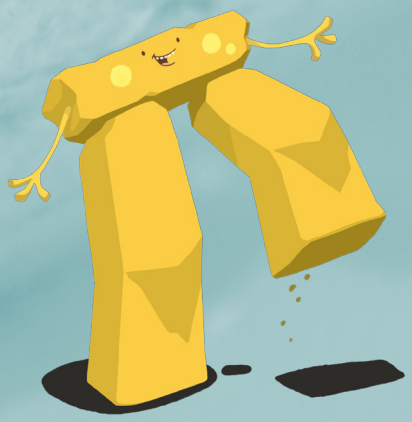
Late Jomon (4500–3200 BP)

4200–3700 BP
Oyu and Isedotai Stone Circles are built.

Final Jomon (3200–2600 BP)

5000 BP

PRESENT



Late Neolithic (5200–4400 BP)

5000–4500 BP
Stonehenge is built.

Bronze Age (4400–2700 BP)

Iron Age (2700–2000 BP)

TIMELINE 年表

ENGLISH HERITAGE
EDUCATION

AT THE EXHIBITION
展覧会で

An activity trail for students to follow at the Circles in Stone exhibition to help them get the most out of their learning.

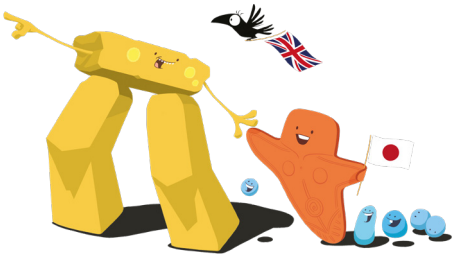
CIRCLES OF STONE EXHIBITION 環状列石展

INTRODUCTION

This exhibition brings together the sometimes surprising similarities between prehistoric monuments in Britain and Japan. Like Stonehenge, prehistoric stone circles were built in Japan 4,500 years ago and they were also linked with burials and feasting. Some even have similar astronomical alignments. Objects excavated at these sites can show many similarities and differences between life during the Neolithic period in Britain and during the Jomon period in Japan.

There is also a connection between Stonehenge and Japan. William Gowland, who led excavations at Stonehenge in 1901, spent many years surveying and excavating in Japan before that. He is sometimes known as the 'father of Japanese archaeology' (find more about him in the teachers' notes on page 25).

Mascots (yuru-kyara ゆるキャラ) are popular in Japan and are widely used to promote brands, products and organisations. We've developed some special mascots to help younger visitors explore this exhibition:



- Big Rock from Stonehenge in Britain
- Little Clay and The Five Pebbles from Jomon Archaeological Sites in Northern Japan.

In our activity trail (pages 12–18), Little Clay introduces students to key Japanese words and phrases in the exhibition, helping them practice their language skills.

VISITING THE EXHIBITION

The special exhibition space is small so you may wish to split your class into smaller groups to explore it. We suggest three groups on rotation: one exploring the special exhibition, one looking around the permanent Stonehenge exhibition and another visiting our Neolithic houses outside the Visitor Centre. Or, you could use the first stop on the trail as an introduction for your whole class, the last stop as a conclusion, and encourage smaller groups to explore the stops in-between in different orders to avoid crowding around the cases.

ON-SITE ACTIVITY 現地でのアクティビティ

ACTIVITY TRAIL

KS2 KS3

Recommended for

KS2–KS3 (History)

Learning objectives

- Identify similarities and differences between life in Neolithic Britain and Jomon Japan.
- Understand how excavations of prehistoric sites have been undertaken and recorded.
- Use phonetic pronunciation to practice some Japanese vocabulary related to the exhibition displays.

Time to complete

30-40 minutes

An aerial photograph of Stonehenge.

An aerial photograph of Isedotai Stone Circles. © Kitaakita City Board of Education

SUMMARY

This self-led activity will help you explore the Circles of Stone exhibition. It offers activities encouraging students to explore the prehistoric monuments and cultures of people living in Britain and Japan 4,500 years ago.

This trail is comprised of individual and group work, including writing and sketching activities. You can use this activity trail as part of your Free Education Visit, or before or after your Discovery Visit at Stonehenge. Search for 'Discovery Visits' on our website for more information about our hands-on expert-led sessions.

PREPARATION AND RESOURCES

- Print the full activity trail resource (pages 12-18), one copy for each member of your group. The trail can be printed on both sides of a page and on A5 to minimise paper use.
- Please be aware that only lead pencils are allowed in the exhibition space to reduce the risk of damage to the displays.
- Students should use clipboards to lean on when sketching in the exhibition (please see notes on page 10 about group sizes in the exhibition space).

MORE LEARNING IDEAS

Students could use their experience of visiting Stonehenge and their knowledge of Japanese stone circles like Isedotai to design their own. They could use a range of materials such as stones, biscuits or plastic bricks to develop their stone circles and align them with sunset and sunrise. Or, they could take inspiration from Yoshijiro Urushibara's woodblock prints of Stonehenge to develop their own colourful monument-related artworks.

ENGLISH HERITAGE EDUCATION

ACTIVITY TRAIL

アクティビティトレイル

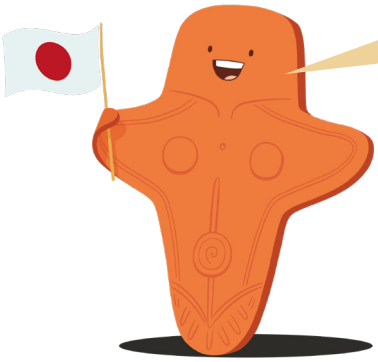
ON-SITE ACTIVITY

KS2

KS3

Use this activity trail to explore the Circles of Stone exhibition and try practising some Japanese vocabulary with our mascots as you go around.

1 INTRODUCTION Where are Stonehenge ストーンヘンジ and Japan 日本?



I'm Little Clay, one of the exhibition's mascots. I'll help you explore the displays and teach you some Japanese words and phrases.

Let's start with: Japan = ni-hon 日本

Britain and Japan are around the same size, on roughly the same line of **latitude**, but 10,000 miles apart.

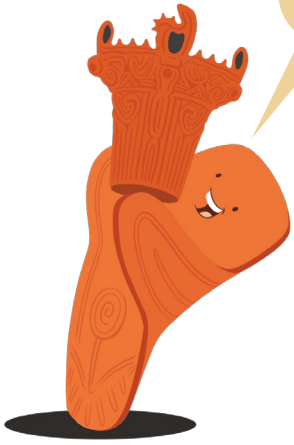
Circle Britain and Ireland and Japan on this map.

Write one similarity and one difference between prehistoric Britain and prehistoric Japan.
(Hint: Use the introduction text panel to help you.)

Similarity:

Difference:

2 PREHISTORIC ICONS 先史時代の象徴



icon = sho-cho 象徴

An icon is a widely known or famous symbol.

Stonehenge has become an icon of prehistoric Britain while Jomon **flame pots** have become an icon of prehistoric Japan. They represent the culture and history of the Jomon period in Japan (from c.15,000 to 2,300 years ago).

Look at the flame pot on display.

Each region in Japan developed its own style of pottery, probably using symbols and decorations that were related to their communities.

What symbols and patterns would you use to represent your community on a pot like this?

Discuss your choices with a partner.

Evidence of food inside these highly decorated pots has shown that they were used in cooking, possibly on special occasions. © Umataka Jomon Museum, Nagaoka City (photo by Tadahiro OGAWA)

Sketch your own flame pot here.

3 WOODBLOCK PRINT 木版画

woodblock print = moku-han-ga 木版画

Stonehenge has inspired artists for centuries. In the 1920s, a Japanese artist called Yoshijiro ('Mokuchu') Urushibara made traditional woodblock prints of the **monument**. His nickname 'Mokuchu' comes from the Japanese phrase for 'wood-boring insect'.

Look carefully at the prints on display.

Write three words or phrases you would use to describe them:

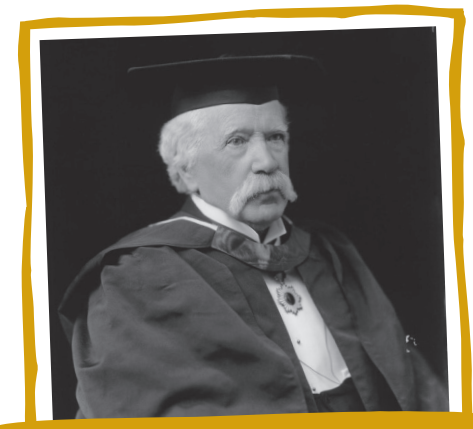
1. .....

2. .....

3. .....

4 WILLIAM GOWLAND AT STONEHENGE
ストーン・ヘンジにいるウイリアム・ガウランド

archaeologist = kô-ko-ga-kusha
考古学者



William Gowland, negative by Walter Stoneman NPG x44418. © National Portrait Gallery, London (CC-BY-NC-ND 3.0)

Shogoro Tsuboi, Professor of the College of Science at the Imperial University of Tokyo. © Public Domain

William Gowland was an **archaeologist** who worked in Japan between 1872 and 1888. He also oversaw the first scientific archaeological **excavations** at Stonehenge in 1901. Gowland used techniques he'd learnt from archaeologists like Shogoro Tsuboi in Japan to inform his work at Stonehenge.

Look at the photographs on display and find two pieces of equipment that Gowland used to help him record all of the objects he found.

Write them here:

1. .....

2. .....

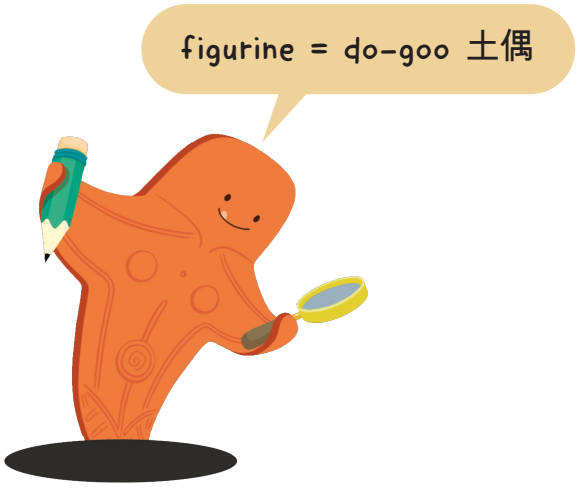
Explain why it was important for William Gowland to record what he found and where he found it:

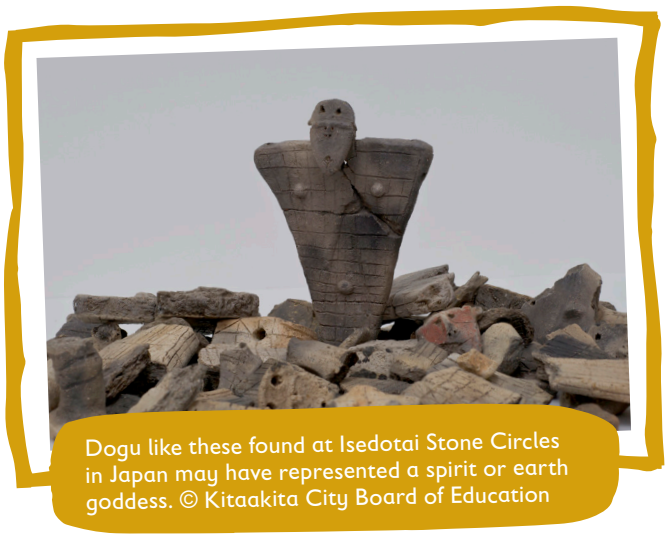
.....

.....

.....

5 JOMON STONE CIRCLES 縄文時代の環状列石





Dogu like these found at Isedotai Stone Circles in Japan may have represented a spirit or earth goddess. © Kitaakita City Board of Education

In the late Jomon period (4400–3300 BP), large stone circles were built in Japan at sites like Oyu.

Look at the painted reconstruction of Oyu stone circles in the 'Jomon Stone Circles' display case.

Find the missing words and numbers in the display case that complete the facts below.

Oyu stone circles were built between ..... and ..... years ago.

The two stone circles at Oyu are called ..... and ..... .

They are made of more than ..... stones.

The stones came from the river ..... and were carried from up to ..... km away.

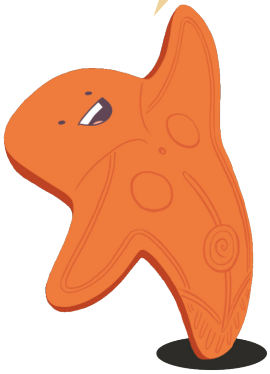
The stones were arranged in small groups, each one above a ..... .

EXTRA CHALLENGE

How do these facts compare with when and how Stonehenge was built? Once you've left the Circles of Stone exhibition, explore the displays about Stonehenge in the rest of the exhibition to find out.

6 LIFE IN JOMON JAPAN 縄文時代の生活

hunting = shur-ri-oh 狩猟



Although prehistoric people living around Stonehenge were farmers, people living at the same time in Japan were mostly **hunter-gatherers**. We can find out more about everyday life in Jomon Japan by studying objects people left behind at settlements like Sannai Maruyama.

Choose one of the objects on display and make a simple sketch of it in the box below.

(Hint: Look out for dogu, tools and arrowheads in the display cases.)

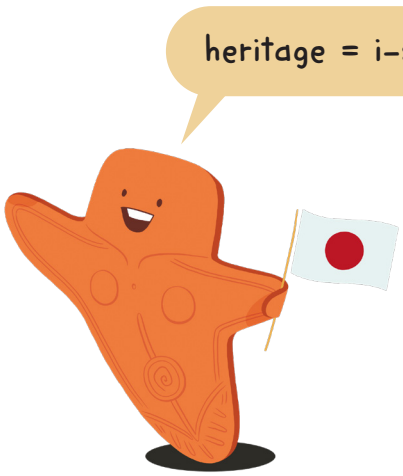
Label your drawing with information about the object (shape, material, size, what it was used for and how it was used).

Share your object with a partner. Are there similarities or differences between the objects you've chosen?

EXTRA CHALLENGE

How does life during the Jomon period in Japan compare with life in Britain during the Neolithic period? Once you've left the exhibition, explore our Neolithic houses outside the visitor centre to learn more.

7 JOMON JAPAN WORLD HERITAGE SITE
北海道・北東北縄文遺跡群世界文化遺産



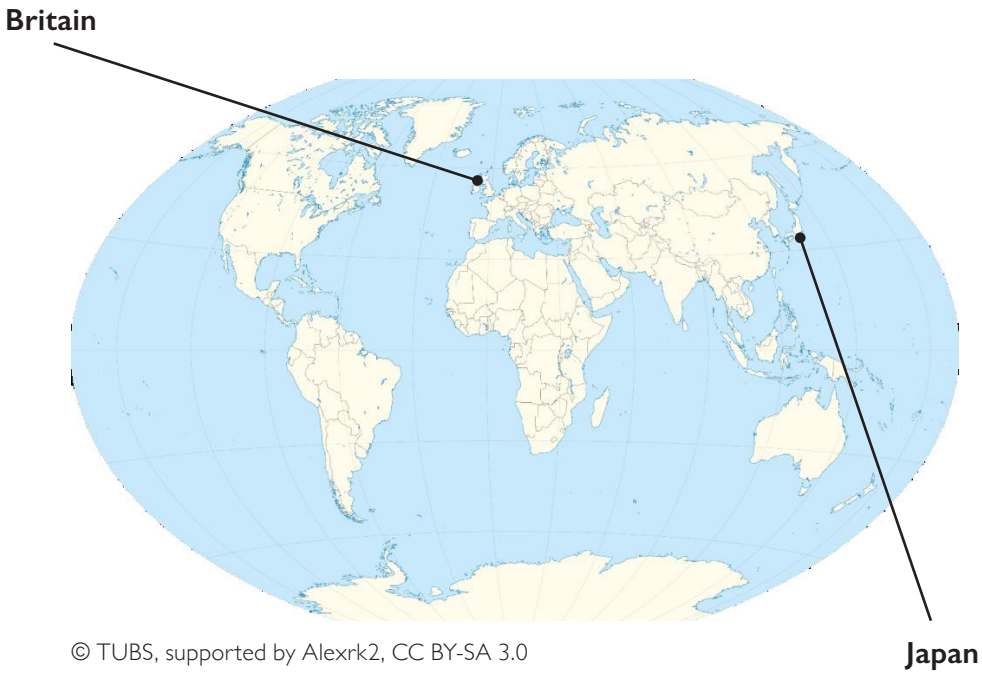
Like Stonehenge, the Jomon archaeological sites that you've seen in this exhibition are part of a UNESCO World Heritage Site. This means they are important places that are protected for everyone to enjoy.

Think about your visit to the Circles of Stone exhibition and all the information you've found out about Stonehenge and Jomon Japan.

Sannai-Maruyama, site of a Jomon village, is one of the Jomon archaeological sites given World Heritage Site status in 2021. © Sannai-Maruyama Jomon Culture Centre

Write down why you think Stonehenge and the Jomon Prehistoric Sites are protected places:

ACTIVITY TRAIL ANSWERS
アクティビティトレイルの解答
TEACHERS' NOTES



STOP 1: INTRODUCTORY PANEL

Examples of Similarities:

- Both Britain and Japan are archipelagos
- Britain and Japan are on about the same latitude
- People in both areas built stone circles
- People in both areas created decorated clay pots

Examples of Differences:

- Britain and Japan are separated by the Eurasian landmass and sit 10,000 miles apart from each other
- People in Neolithic Britain were farmers while people in Jomon Japan were fishers, hunters and gatherers

STOP 2: PREHISTORIC ICONS

- Creative Challenge (students will give personal responses, creating their own flame pot design).

STOP 3: WOODBLOCK PRINT

- Students will give personal responses to the woodblock prints (three words or phrases).

STOP 4: WILLIAM GOWLAND AT STONEHENGE

It was important for Gowland to record what he found and where he found it because:

- it allowed him to review his findings and compare them with his experience of prehistoric sites in Japan
- it helped him determine that Stonehenge was a Neolithic monument for the first time
- it allowed him to publish his finds accurately in a report for others to read. This helped others build on his research.

STOP 5: JOMON STONE CIRCLES

Oyu stone circles were built between …**4,200**… and …**3,700**… years ago.
The two stone circles at Oyu are called …**Nonakado**… and …**Manza**… .
They are made of more than…**8,500**… stones.
The stones came from the river …**Akuya**… and were carried from up to …**7**…km away.
The stones were arranged in small groups, each one above a …**burial**… .

STOP 6: LIFE IN JOMON JAPAN

- Students to choose an object on display to sketch and annotate.

STOP 7: JOMON JAPAN WORLD HERITAGE SITE

Possible answers include:

- The Jomon Prehistoric Sites in Northern Japan and Stonehenge and Avebury in Britain are very old and this makes them precious survivals from the past.
- The monuments at both World Heritage Sites show creativity and impressive technological achievements in prehistoric times.
- Evidence from these sites show how people in Jomon Japan were living (hunter-gatherers) and how people around Stonehenge were living (farming).
- Both the Jomon Prehistoric Sites and Stonehenge have become icons of prehistory in their respective regions.
- The Stonehenge landscape includes a variety of prehistoric monuments including the Avenue, the Cursuses, Durrington Walls, Woodhenge and many burial mounds. Around Avebury there are also many monuments including Windmill Hill, West Kennet Long Barrow, the Sanctuary, Silbury Hill and more.
- The Jomon Prehistoric Sites include settlements, burial areas, ritual and ceremonial sites, stone circles and earthworks in a variety of landscapes including mountains, hills, plains and lowlands as well as near lakes and rivers.
- The stone circles at Stonehenge and the surrounding landscape and some in Japan have astronomical alignments. This suggests that people in the past considered the movement of the sun to be very important.

ENGLISH HERITAGE
EDUCATION

POST-VISIT
訪問後

Activities and information to help extend
your students' learning back in the classroom.

POST-VISIT ACTIVITY 訪問後のアクティビティ

GOWLAND'S GRIDS

KS2 KS3

Recommended for

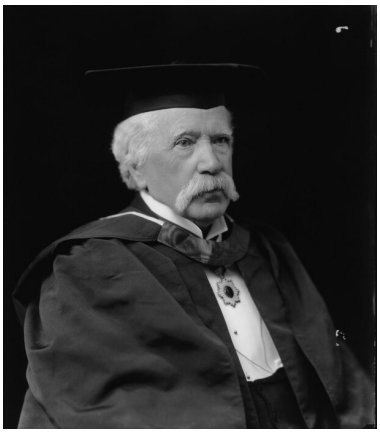
KS2–KS3 (History, Science)

Learning objectives

- Reflect on the ways that excavations of prehistoric sites have been undertaken and recorded.
- Use William Gowland's recording techniques to understand his methodology and how this influenced archaeological practices.
- Consider how techniques like William Gowland's have helped to shape the way that archaeologists work today.

Time to complete

45-60 minutes



A negative of William Gowland by Walter Stoneman, 1918, NPG x44419. © National Portrait Gallery, London (CC-BY-NC-ND 3.0)

SUMMARY

William Gowland (1842-1922) was an archaeologist who used techniques he'd seen and developed while working in Japan to undertake excavations at Stonehenge in 1901. This activity introduces students to one of these: grid drawing.

Gowland's method of carefully recording archaeology as it was found enabled him to conclude for the first time that Stonehenge was a Neolithic monument. You can use the background information about Gowland and his work in our Teachers' Notes on page 25 to help introduce his methods to your students.

Use the step-by-step instructions on pages 23-24 to guide students in creating their own dig sites, undertaking mini-excavations and recording their findings, just like William Gowland did at Stonehenge.

This activity works best when students are split into small group of 3–4.

YOU WILL NEED

- a box or plastic drawer (1 per group of 3-4 students),
- soil or sand (enough to half-fill each of your boxes/drawers)
- teaspoons
- toothbrushes or small paintbrushes
- a variety of small objects (e.g. coins, stones)
- ruler
- squared paper
- string.

MORE LEARNING IDEAS

Encourage students to reflect on why Gowland's meticulous methods were so important to the development of archaeology as a scientific discipline. They could discuss their experience of grid drawing along with their understanding of the scientific method in small groups and feed their thoughts back to the class.

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ENGLISH HERITAGE EDUCATION

GOWLAND'S GRIDS

ガウランドの碁盤

POST-VISIT ACTIVITY

KS2

KS3

Take on the role of an archaeologist and record your own dig site, just like William Gowland did for his excavations at Stonehenge and in Japan.

YOU WILL NEED:

- a box or plastic drawer
- soil or sand
- teaspoons
- toothbrushes or small paintbrushes
- a variety of small objects (e.g. coins, stones)
- ruler
- squared paper
- string.

INSTRUCTIONS

1. **Make sure** you have all the equipment you will need for the activity in your group.
2. **Pour** soil or sand into your box or drawer very carefully. Bury your objects so that they cannot be seen. This is now an archaeological dig site!
3. **Swap** your dig site with another group. You will be exploring the site they have just given you.
4. **Record** how big the site is (the approximate area in cm^2) by measuring the length and width of your box or drawer and multiplying these measurements together. Plot the size of your box or drawer onto your squared paper. You may need to scale it down to fit (e.g. 1cm of your box or drawer = 1 square on your paper).

5 **Begin** slowly excavating using your teaspoons and brushes. Don't move or remove any objects yet.

6 **Lay** pieces of string over the top of your site at set measurements (e.g. 5cm) to create a grid. This will help you record your findings.

7 **Sketch** each object you can see as carefully as you can on your squared paper, using the string grid as a guide. Think of your string grid as coordinates on a map. Make sure your object drawings are in precisely the same locations and are drawn to scale. You can do this by measuring the size of the objects and their distance from the edges of your dig site.

8 **Remove** the string and label each of your finds on your drawing to record what you have found. Measure and write down exactly how deep down the objects are. Remember to measure and record the sizes of the objects and the materials they are made from too.

9 Once everyone has had a chance to excavate their dig sites, **share** your findings with the rest of the class. What did you find during your excavation? What information did you have to include on your dig site plans and why is this important?

REFLECTING ON GOWLAND'S WORK

Consider what our understanding of Stonehenge would be like if William Gowland hadn't carefully recorded his findings by discussing these questions with a partner:

- would it have been possible for him to conclude that Stonehenge was a Neolithic monument?
- would he have been able to make connections between prehistoric building in Britain and Japan?
- would others have been able to build on Gowland's work after his excavations at Stonehenge in 1901 without detailed records?
- what would happen if archaeologists didn't carefully record their excavations today?

POST-VISIT ACTIVITY 訪問後のアクティビティ
TEACHERS' NOTES

BACKGROUND INFORMATION ON WILLIAM GOWLAND AND HIS EXCAVATIONS AT STONEHENGE

WILLIAM GOWLAND AND JAPAN:

- William Gowland (1842–1922) lived in Japan between 1872 and 1888. He surveyed tombs and excavated a burial mound in his spare time.
- The Japanese archaeologist Shogoro Tsuboi meticulously recorded what he found on plans and drawings. Gowland developed Tsuboi's methods, using a measuring frame and rod to plot where every artefact was found in 3D onto a grid system. He marked his finds on plans and section drawings using coloured dots and symbols.

EXCAVATIONS AT STONEHENGE:

- William Gowland was asked to oversee the first scientific and archaeological investigations at Stonehenge in 1901. He used techniques that he had seen and developed while working in Japan to ensure that his excavations were recorded accurately.
- He took care to ensure that every single find was recovered and carefully recorded during his excavations. Along with his wooden 'registering frame' and 'vertical rod' to record the 3D positioning of every find, Gowland used sieves to make sure that no objects were missed.
- All of his finds were stored in labelled boxes that recorded the area and layer in which they were found. The fact that only stone tools were found during the excavations enabled Gowland to conclude for the first time that Stonehenge was a Neolithic monument.

GOWLAND'S CONCLUSIONS ABOUT STONEHENGE:

- Gowland's interpretation of his findings at Stonehenge was influenced by his experience of Japanese monuments.
- He suggested the stones at Stonehenge could have been moved by lots of people by using rollers and ropes. This technique had been used to build the large ramparts at Osaka Castle.
- He thought that the hammerstones he had found would have been used to shape the stones as he had seen in Japan.
- Gowland noted possible similarities between the way that prehistoric monuments in Japan are aligned with the sun and how this was achieved at Stonehenge. At Meoto Iwa (Married Couple Rocks), there is a ceremonial gate built to frame the sunrise between two offshore rock stacks at the midsummer solstice (the longest day of the year). If you were to stand in the centre of the monument at Stonehenge, you would see the sun rise just to the left of the Heel Stone on midsummer's day (21 June).