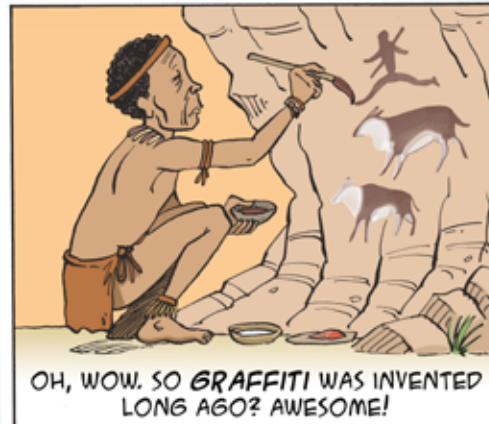


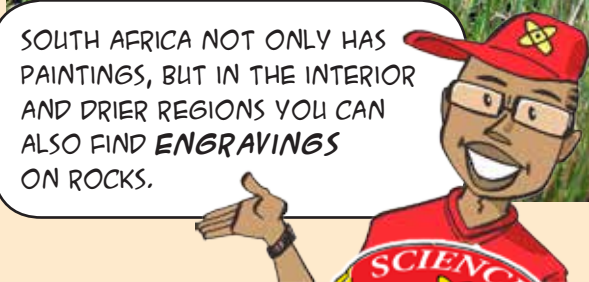
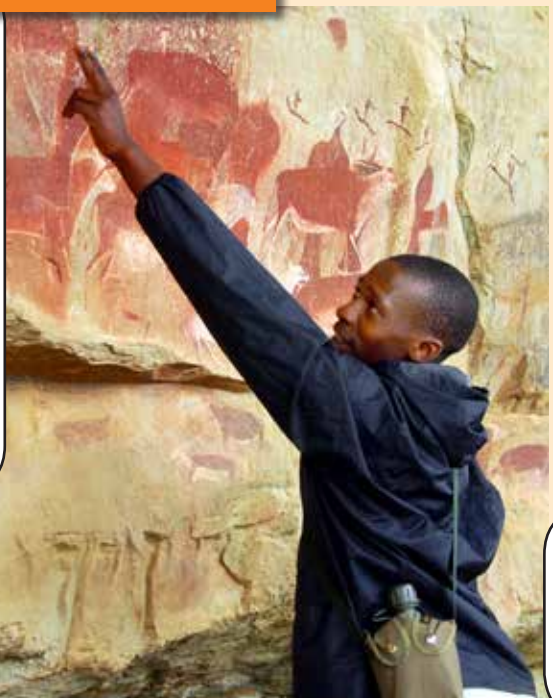


ROCK ART



INTRO TO SA REFERENCE

SOUTH AFRICA HAS ONE OF THE RICHEST COLLECTIONS OF **ROCK ART** IN THE WORLD! **BUSHMAN PAINTINGS** ARE FOUND ALL OVER SOUTH AFRICA, WITH MOST OF THEM BEING IN THE DRakensBERG WHERE THERE ARE **45 000 INDIVIDUAL PAINTINGS** IN ABOUT **800 CAVES**.



BE A ROCK ARTIST!

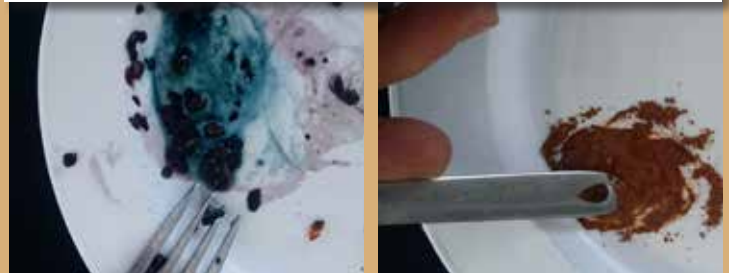
BUSHMEN USED WHATEVER THEY FOUND IN NATURE TO MAKE THEIR PAINTS. THEY EXPERIMENTED WITH DIFFERENT THINGS TO FIND PAINT THAT WORKED. WHAT PAINTS FROM NATURE CAN YOU COME UP WITH?

1 HAVE A LOOK AROUND YOUR AREA FOR THINGS IN NATURE THAT YOU CAN USE TO MAKE PAINTS AND PAINT BRUSHES. FOR THE PAINTS, LOOK FOR THINGS LIKE:

- COLOURED BERRIES OR LEAVES THAT CAN BE CRUSHED.
- COLOURED ROCKS - ESPECIALLY RED OR YELLOW ONES. IF THEY ARE SOFT ENOUGH THEY CAN BE SCRATCHED OR GROUND TO MAKE A POWDER.
- CHARCOAL FROM A FIRE.
- WHITE CLAY.



2 EXPERIMENT WITH THE DIFFERENT THINGS YOU HAVE FOUND. MIX SOME TOGETHER, ADD DIFFERENT AMOUNTS OF WATER TO SEE WHAT PAINT YOU CAN MAKE. EGG WHITE CAN BE USED TO MAKE DIFFERENT THICKNESSES OF PAINT.



3 FOR THE PAINT BRUSHES, LOOK FOR THINGS SUCH AS DIFFERENT GRASSES, TWIGS OR FEATHERS THAT COULD BE USED TO MAKE DIFFERENT THICKNESSES OF PAINT BRUSHES.



4 ONCE YOU HAVE A COUPLE OF DIFFERENT COLOUR PAINTS AND SOME PAINT BRUSHES, FIND A PIECE OF ROCK AND MAKE YOUR OWN ROCK ART.



WHAT'S HAPPENING HERE?

Bushmen used various ingredients in their paints.



The yellow and red colours were mainly made from soil or rocks with iron in it.



Soil or rock pigment (colouring for paint) is called ochre.



Black paint was made from charcoal and white paint from white clay or bird droppings.



They often used egg white to preserve the paintings.



MORE THAN JUST A PICTURE

The paintings had deep *spiritual meaning* for the Bushmen, also known as the San.

Blood from the eland antelope was used in the paintings to give them spiritual power.

Game Pass Shelter at Kamberg (in the Drakensberg) is world famous for its paintings of *eland*. There is one painting called the "Rosetta Stone of Rock Art" that has given scientists the key to understanding Bushman paintings.



Photo by Jeremy Williamson



CAREERS:

Archaeologists

study what humans did in the past. This is often done by digging up old ruins to find out how they lived, but it can also mean studying Rock Art to find out about the culture, beliefs and lives of the people who painted the pictures.

Tour guides

have learned all about the Rock Art paintings and pass that information onto the many tourists who come and view them every year. They have to be very knowledgeable about the paintings and lives of the San people to be able to answer the questions asked by the tourists.



Archaeologists dig for clues about our past.

Pic: commons.wikimedia.org - Muhammad Zahir

CURRICULUM LINKS

- **GRADE 7:** Natural Science: Matter and Materials – Properties of materials; History: Co-operation and conflict on the Frontiers of the Cape Colony in the early 19th century.
- **GRADE 9:** Visual Arts: observation interpretation of global visual world; Natural Science: Matter and Materials – Reactions of metals with oxygen.
- **GRADE 10, 11 & 12:** Tourism: Tourism attractions, Culture and Heritage; Sustainable and responsible tourism

PUZZLE YOUR MIND!!!

UN-SCRAMBLE THESE WORDS TO FIND PLACES AND THINGS TO DO WITH ROCK ART. THE CLUES WILL HELP YOU.



OOGYALECHAR
THE STUDY OF HOW PEOPLE LIVED IN THE PAST.

BEMGRAK
THE PLACE WHERE GAME PASS SHELTER CAN BE FOUND.

DENAL
LARGE ANIMAL OFTEN SEEN IN SAN PAINTINGS.

WIGETEGH
WHAT THE SAN PEOPLE USED TO PRESERVE THEIR PAINTS.

HUMSEBN
ANOTHER NAME FOR THE SAN PEOPLE.

RECHO
COLOURED ROCK USED TO MAKE PAINTS.

LORCAACH
BACK PAINT WAS MADE FROM THIS.

Answers: kamberg; archeology; bushmen; ochre; eland; egg white; charcoal

START YOUR OWN SCIENCE SPAZA

Do you want to start a science club at your school? Send us the following information, and Science Spaza will contact you.

School: _____

Name: _____

Telephone number: _____

Email address: _____

Postal address: _____

Visit www.sciencespaza.org, email info@sciencespaza.org, sms or WhatsApp us on 076 173 7130 or write to us at PO Box 22106, Mayor's Walk, 3208.

WE WANT YOUR FEEDBACK!

SEND US A PHOTO OF THE ROCK ART PAINTING THAT YOU MADE. TELL US HOW YOU MADE YOUR DIFFERENT COLOUR PAINTS.



This Science Spaza resource was produced for the National Science Week celebrations of Science for Sustainable Tourism. National Science Week is an initiative of the Department of Science and Technology (DST). It is implemented by the South African Agency for Science and Technology Advancement (SAASTA), a business unit of the National Research Foundation. For more information visit www.saasta.ac.za



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