Rocks of Ontario Mak

ONTARIO BENEATH YOUR FEET > ULD 4°P 4CT 6 AS CJ°95

GEOLOGY IS THE STUDY OF THE EARTH • MINERALS ARE SOLID MATERIALS THAT OCCUR NATURALLY • ROCKS ARE MADE UP OF TWO OR MORE MINERALS agraphi agraphi

Rock Types & Aseder ares

Igneous rocks cool from magma (inside the Earth) or lava (outside the Earth).

b Ub5, A5 ACL, Ab, D

Metamorphic rocks are rocks that have been changed by heat and/or pressure.

Sedimentary rocks are formed from bits of other rocks or shells of marine life laid down in water bodies.

6 P d5V′ d7σ ∇.6a d7σ 6 P DSD′ ace, as pl ac va As, pl P Δ° b d5 $V\sigma\Gamma_x$

Quartzite

Hard, light-coloured rock changed from sandstone under high heat and/or pressure.

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L.P·∇5° 4V2. Δ 4U5. $\sigma b \cdot \Delta$ $\forall r \sigma'$ ∇P $P \Gamma$ $P \Gamma P'$ ע פט כגי, פיף פכני

Rhyolite

Light-coloured rock, with small mineral grains, cooled from lava erupted from volcanoes.

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Limestone

A light coloured rock formed from the remains of animals and shells on the bottom of a warm, shallow ocean.

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The Rock Cycle

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Sandstone

A light coloured rock formed from grains of sand.

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A light- to dark-coloured rock, with very small mineral grains, formed from silt, clay or mud. It easily breaks into flat pieces.



Rock with larger pink, black and white mineral grains formed by magma cooling under the Earth's surface.

65a[∆]/ **4**7σ

LTSP $\Lambda \cdot \Delta \Lambda^{\circ} \cdot b \nabla \Gamma d \Gamma b \Gamma$, L6U·4P, 5°C ·4<P 6 P **▷\$▷**′ ◁◛ ◁갠▱ ♡ ◁Ⴖ ᢗዮ갠′ **ላ**ተራ **ላ**ርΓ\ **ላ**^ዖ*

Basalt

A dark-coloured rock, with small mineral grains and pillow-like shapes, that formed from lava erupted under water from volcanoes.



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Dark rock with larger mineral grains formed by magma cooling under the Earth's surface.

LPO·VS 4.4 45€ A bbub 9cb **4CL**, **4**₀b,*



Gneiss

Rocks showing multi-coloured layers formed under high heat and/or pressure.

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 $\sigma\sigma\rho$, $\nabla \chi \Lambda \rho \gamma$, $\Delta \phi$, $\Delta \phi$, $\Delta \gamma \rho \gamma$ P b D2DL, Δ dU Cb4、 <b4.∇ d4e</p>







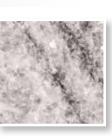


Marble

Sparkly light-coloured rock changed from limestone under heat and/or pressure.



J, 45€, P b bl Plb\ Δ 4C Cb5, <P<>\0.00



Rocks of Ontario PULD OLD

THROUGH FIRE, EARTH AND WATER S> AYUN, And The Through Fire and the second seco

Ontario Geological Timeline & Vr Asa·b > Dala dala

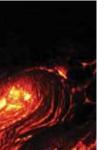
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HADEAN Oceans of Fire

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ARCHEAN Life is Small

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Canadian Shield:

Large region made of granites and greenstone rocks – the oldest rocks and middle age rocks of Ontario.

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Granites: The first crust.

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Greenstone Rocks:

Formed from Ontario's first volcanoes – often contain valuable mineral resources.

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The Sudbury Structure: A large meteorite hit the Earth and created the Sudbury impact crater.



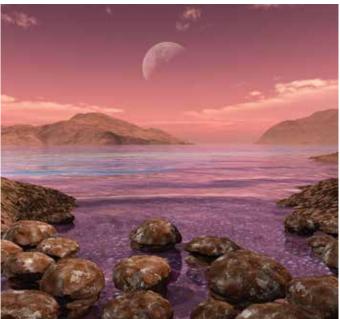
1850

PROTEROZOIC We Can Breathe

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Emerging Earth: The land was pushed and pulled into pieces, creating oceans, volcanoes and mountains. Early life created oxygen.

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Weathering: Wind, water, ice, heat and pressure break down rocks. Ь ላታΔ Δያ የያቴ\: ΔΠ³, σΛ, L^•ЬΓ, የያሀ° ∇•ЬσΔ Ь Λ\⊳d′ ላ/σχ

Erosion: Movement of broken rocks. This wearing away of the rocks is why Ontario no longer has mountains as high as the Himalayas.

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Paleozoic <¬▷┤△						Mesozoic 7°b/4\			Cenozoic 4'PA'		
Cambrian	Ordovician	Silurian	Devonian	Carboniferous	Permian	Triassic	Jurassic	Cretaceous	Paleogene	Neogene	Quaternary
ادا√⊲۰	ه۲۵۰۲۵۰	۲ _⊾ ⊳⊄۵,	∪،⊳،٩٩٠	ხ ["] >ა <mark></mark> Ժ¹∇" <mark></mark> "	>,L4,	√ ₽₫°₽′	Jና _ጉ ረ	՚ -₀Cᆉຝ^	۸⊃⊳۱۵٫	م⊳ړ _ه	∙ხጋ∾⊸ი⊾



Ontario, leaving behind many animal and plant remains seen today as fossils.

 Δ $\alpha_b > 0$, ΔU b ΔU $\nabla C \cdot P$ $\Delta U = \Delta U$ T^PbUP 4→-x

Ice Ages: During the most recent ice age, glaciers covered most of Ontario, up to 4 km thick! As glaciers moved forward, they carved out the Great Lakes. Evidence of the melting of glaciers is seen today on land as striations and erratic boulders.

b P PC Cbb': T·b⁻ daf9 b P PC Cbb', bP92' P d·bσ5' 9b′ F2·∇ Þ'UんÞ P $\triangleleft \Omega$ $\square a \triangle A C^c$ $\triangleleft ^n P \sigma ^o$ $\triangleleft a ^ \vdash b$ $\triangle S$ $\triangle C \cdot b P$ $\vdash \Gamma S$ $\vdash b \triangle b \vdash a ^ \vdash b$ $\vdash P S b \cap b$ $\vdash b$ σσρ·∇ LጊbUL, Διαρ,*



Erratic Boulder: Boulder moved to different area by glaciers. The rock type of the erratic boulder and the rock under the boulder are often different.

 $\Gamma \Gamma \Gamma^{\circ} + \Gamma \Gamma^{\dagger} \times \Phi \Phi$ $\Phi \Phi \Phi \Phi$ ΔCL , L2 ΔL^{2} , P ∇C , $\sigma \sigma P \cdot \nabla \sigma \eta L \cdot \Delta$,*

YOUNGEST ROCKS, Phanerozoic

MIDDLE AGE ROCKS. Proterozoic

Greenstone rocks `ഫ` ^プ ◁ナ₲ナ`

Granites, volcanic rocks, sedimentary rocks

Limestones, sandstones

OLDEST ROCKS, Archean Granites **\ዓ ፌ**ላ **ላ**/ፊ**ኑ**\

Striations: Long, straight parallel lines or gouges formed as glaciers scratched the underlying rock.

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