



Ancient Birch Tar

Part 1

Teacher Reads Prehistoric people lived in a time before history was written down, thousands of years ago. To understand life back then, scientists study artifacts, or objects that people left behind.

One object used by prehistoric people was birch tar.

9 **Scientists** know that prehistoric people made birch tar
17 from the bark of birch trees. The bark was burned to make
29 a sticky, adhesive substance that was like glue. People
38 used birch tar to make and repair stone tools for cooking
49 or hunting. They also used birch tar to put parts of tools
61 together. For example, arrowheads were attached to arrows
69 using birch tar.

Part 2

Teacher Reads Besides using birch tar as an adhesive (a glue), prehistoric people found other purposes for it.

72 Scientists have determined that prehistoric people
78 also chewed birch tar. Many lumps of birch tar with
88 teeth imprints, or teeth marks, have been found.
96 So why did prehistoric people chew birch tar? One
105 reason may be the way birch tar was made. When
115 birch bark was burned, the birch tar that was produced
125 was very hot. As the birch tar cooled, it became hard.
136 People might have chewed the birch tar to make it soft
147 so it could be used for toolmaking.

154 People might also have chewed the birch tar to **relieve**
164 tooth pain or to clean their teeth. They might have used it
176 to reduce their hunger pains. Or they might have just liked
187 chewing it, as a kind of prehistoric chewing gum.



Part 3

Teacher Reads Although scientists have found many samples of chewed birch tar in the past, it is only recently that they discovered birch tar containing ancient human DNA. DNA carries information about a living thing, including its appearance, or how it looks.

196 In 2015, scientists were digging at a prehistoric site
205 in the country of Denmark. They did not find bones or
216 teeth from people. However, they did discover a lump of
226 birch tar that had been chewed by an **ancient** person.
236 This birch tar turned out to be very important.

245 Scientists ran tests on the lump of birch tar. They
255 learned a great deal of information from the tests.
264 They concluded that the chewer of the birch tar was a
275 female who lived 5,700 years ago. The test results indicated
285 that she had dark skin, dark brown hair, and blue eyes.
296 The tests showed that the female ate hazelnuts and duck
306 before chewing the birch tar. We can conclude that she was
317 one of many prehistoric people who both hunted animals
326 and gathered plants for food.
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