

Sendung mit der Maus - Regenbogen - englische UT-Texte

Start 10 00 00 00

0 00x - 06 Beautiful, a rainbow. But what
 causes it, and why is it round?

07 - 12 Christoph is going to make his
 own rainbow, using a hose.

13 - 17 You can only see a rainbow
 if your back is to the sun.

17x - 21x If you're lucky,
 you may even see *two*.

24 - 30x For a rainbow you need sunlight,
 and rain. Or rather: raindrops.

32x - 36x Let's say this flask of
 water is a big raindrop.

38 - 40x No colours to be seen yet...

- 45 - 49 If Christoph stands at an
 angle to the sun-
- 50 - 54x the light is reflected back.
 That's that bright spot.
- 55 - 01 00 And you can see colours:
 red, green and blue.
- 00x - 05 The sunlight passes through
 the drop of water.
- 05x - 10x You can see that better here.
 Some light is reflected back.
- 11 - 16 To show what happens when
 sunlight is diverted-
- 16x - 21x in a particular direction,
 we'll use a glass prism.

- 22 - 26x If the light hits the prism
 at a specific angle-
- 27 - 32 it is diverted, and the white
 light is split-
- 32x - 36x into different colours:
 red, green and blue.
- 43x - 45x The same with our drop of water.
- 46 - 53x You see colours only if the light
 is *refracted* and splits up.
- 54 - 59x But when does this happen?
 Only at a particular angle.
- 02 00x - 06x** When Christoph sees colours,
 he raises his hand.

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- 07 - 12x Higher... Up a bit more...
OK.
- 15 - 18x Down again,
in the shape of an arc.
- 23x - 29 You'll see that better if we
speed it up. Now down again.
- 30 - 36 For a round rainbow,
you need lots of water-drops.
- 36x - 38x And Christoph must stay still.
- 39 - 44 At a particular angle to the sun,
the light is reflected back.
- 44x - 51 Red above, blue below, depending
on how the light is refracted.

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51x - 54x And that's why rainbows are round.

55 - 58x OK Christoph, the lawn
 is wet enough!

03 02 End