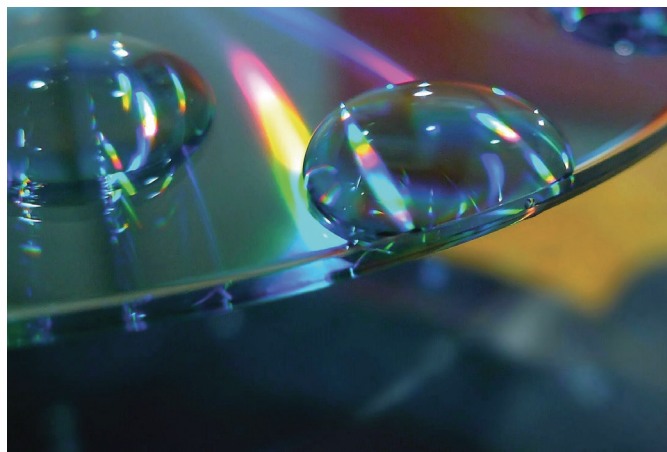


Compact Disc

Think



- What can you see?
- Why is it so colourful?
- What materials can you see in the picture?
- What do these materials have in common?
- What is natural and what is man-made in this picture?



Solve



I have 23 CDs I can record on. 10 of them play for 120 minutes, 5 of them for 90 minutes and the rest for 80 minutes. I give Ben some with a total recording time of 6 hours 20 minutes. Which CDs did I give to Ben? How much recording time do I have left?

Discuss



CD sales in the UK are still outselling digitally downloaded music, but does it make sense to buy CDs any more? What are the advantages and disadvantages of buying your favourite album on CD when you can digitally download it? Which ways do you listen to your favourite music?

Reimagine



Find other materials that reflect the light in this way. What can you find in your classroom? Draw it in close up, with the colours you can see.

Respond



Make a list of different ways you can recycle your old CDs. What can they be turned into? Pick one and then write the instructions of how to make your chosen use for old CDs.

Discover



Fact: We see rainbow colours reflected off CDs because of the material they are made of is highly reflective. Most of the incoming white light passes through its shiny surface, but some is reflected off and splits into the colours of the spectrum.

Question: This happens with several items we see every day. Can you investigate what these are and show how you understand reflection of light by making a pamphlet explaining it?

Compact Disc **Answers**

Which CDs did I give to Ben?	How much recording time do I have left?
<p>Children need to convert the 6 hours 20 minutes of recording time given to Ben into minutes:</p> $6 \times 60 = 360 \text{ minutes} + 20 \text{ minutes} = 380 \text{ minutes}$ <p>To do this I gave Ben the following CDs:</p> <p>1 x 120 minutes</p> <p>2 x 90 minutes</p> <p>1 x 80 minutes</p> <p>Children can check their answer by calculating total recording time:</p> $120 + 90 + 90 + 80 = 380 \text{ minutes}$	<p>First the children need to add up the total amount of recording time I have in minutes:</p> $10 \times 120 \text{ minutes} = 1200 \text{ minutes}$ $5 \times 90 \text{ minutes} = 450 \text{ minutes}$ $8 \times 80 \text{ minutes} = 640 \text{ minutes}$ <p>Total recording time = 2290 minutes</p> <p>To calculate the remaining recording time, subtract the 6 hours and 20 minutes (380 minutes) given to Ben:</p> $2290 - 380 = 1910$ $1910 \text{ minutes} = 31 \text{ hours } 50 \text{ minutes}$