

Upgrade the "GV-360-Wave".....

Letter of note.

Abstract

The 'memory of water' is a concept by which the properties of an aqueous preparation are held to depend on the previous history of the sample. Although associated with the mechanism of homeopathy, this association may mislead. There is strong evidence concerning many ways in which the mechanism of this 'memory' may come about. There are also mechanisms by which such solutions may possess effects on biological systems which substantially differ from plain water. This paper examines the evidence.

"A CD has a radius of about 0.060 m and rotates at 3.5 rev/s for music at the outer edge. Find (a) the constant tangential speed at which the music is detected and (b) the angular speed (in rev/s) for music at a distance of 0.025 m from the center of a CD." 1.3 m/s

(linear)

8.4 rev/s

(angular)

"Compact Disc." Encyclopedia Americana. Connecticut: Grolier, 1999: 151. "CDs spin at about 500 rpm when read near the center, decreasing to approximately 200 rpm when read near the circumference, producing a constant linear velocity." 3–8 rev/s

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Davidson, Homer L. Troubleshooting and Repairing Compact Disc Players. New York: McGraw Hill, 1996: 47. "The CD starts out at an inside diameter of around 500 rpm and slows down to approximately 200 rpm, while the 45 rpm speed is constant." 3–8 rev/s

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Anderson, Dave. CD-ROM. PC Technology Guide. January 1999. "As the disc rotates at between 200 and 500 rpm, the light bounces off the pits and the frequency [sic] of the light changes." 3–8 rev/s

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In the spring of 1980, Sony teamed up with Philips Electronics and Polygram to produce a compact disc (CD) standard. A year earlier, Philips had already produced a prototype for a compact disc player in Europe. Since then, the technology for compact discs and their players have greatly evolved. Compact disc players have become more lightweight, more portable, and many personal CD players now even come with AM/FM radios.

CD technology has greatly revolutionized the idea of a spinning disc. In the mid-20th Century, people were using turntables to spin records at 45 revolutions per minute. CDs spin at an angular speed of 500 rpm when read from the center and 200 rpm when read near the circumference. Besides having an angular velocity, the CD also has a constant linear velocity (CLV). The CLV of a CD has been standardized by Philips at 1.2 to 1.4 m/s.

CDs are much more efficient than black records. Records contain grooves that have been coded with amplitudes that correspond to a specific sound. CDs have "pits" rather than grooves. The spaces between the pits are a digital representation of the recorded sound. The information on these pits is read by lasers that do not physically touch the disc as in a record. By using a digital representation of the sound, the physical wear of recording and playback is greatly reduced. The sound quality is far much better than analog systems.

CDs are not only used in the music industry, but are also utilized in the computer industry. The information of a huge library can be stored on a single CD. CDs for the computer are known as "read-only memory", meaning that the information cannot be altered. CD-ROM drives are classified by speed -- 1X being the speed of a standard audio disc (200 rpm), 2X is twice as fast, 4X is four times as fast, and so on.

Drop of Water..

18 to 24 Hex A pixel. 1.DW 1 Pixel speed at need of disk with layer of water.

1 drop of water as A pixel size of that one drop of water hold's different memory from the drop of water to the next drop of water.

Meaning 1 pixel drop of water of A pixel that's how many to A gram how many drops would it take for any of the pixels to that of A layering of water at "Gram"

mount : 8.9 milliliters of water (ml)

Equals : 8.90 grams of water (g wt.)

Fraction : $8 \frac{9}{10}$ grams of water (g wt.).....

Amount : 10.8 milliliters of water (ml)

Equals : 10.80 grams of water (g wt.)

Fraction : $10 \frac{4}{5}$ grams of water (g wt.)..

To the disk can be covered with Vinyl as A designed vacuum integrated **into any Compact Disk** and at #360 Milo gram's of A layer water spinning at 1.2–1.4 m/s (constant linear velocity, CLV)—equivalent to **approximately 2.3 RPM at the inside** of the disc, and approximately 200 RPM at the outside edge in both edge and inside are at its slowest capacity to pick up on the information of water and the acrylic and polyurethane

plastic interlude with A Vacuum and Water and all other combined chemicals of A Compact Disk.

General-Velocity-360-Wave

Sincerely

Michael S.Woolls

Woolls Michael
2:39 PM (4 minutes ago)
to higgins, peter.gerardi, Info

Time use are 3D printers measurement will go right into it

bryan.porter@alexandriava.gov

----- Forwarded message -----

From: Woolls Michael <woollsmichael@gmail.com>

Date: Wed, Jan 26, 2022 at 2:39 PM

Subject: Re: Upgrade the "GV-360-Wave".....

To: <higgins@neurobio.arizona.edu>, <peter.gerardi@gmail.com>, <Info@stratigix.com>

Time to clone are 3D printers measurement will go right into it

On Wed, Jan 26, 2022 at 2:29 PM Woolls Michael <woollsmichael@gmail.com> wrote:
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Sincerely

Have you ever studied an everyday object through a magnifying glass—and been amazed at what you could see? Or have you ever noticed, for example in a swimming pool, that an object that is sticking out of the water looks different just above and just below the surface? In this activity you will learn a little bit more about both of these observations. Get ready to bend light, magnify letters and have fun with water drops—all while getting a glimpse into how lenses work!

Lenses are the key components in eyeglasses, contact lenses, binoculars and telescopes—just to name a few devices. With this activity a homemade magnifying glass is only a drop away!

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Background

You see an object because light rays reflected from the object shine into your eye, creating an image on the retina inside your eye. Signals to your brain allow it to re-create the picture of the object.

A light ray bouncing off an object usually travels in a straight line to your eye. Things change when a transparent material, such as glass or water, gets in the way. When a light ray traveling through air enters such a material, it changes direction, creating a sort of kink. Another kink is introduced when the ray leaves the material. Therefore, the final image of the object in your eye might be different due to the changes in direction of the light on its way to your eye. Your brain is unaware of these kinks and expects an image created by rays that traveled in a straight line. As a result, it might reconstruct a picture that is different from the initial object. Your eyes and brain might have been fooled!

Lenses use these kinks to make objects look bigger or smaller, closer or farther away. A convex lens bends light rays inward, which results in the object being perceived as larger or closer. A concave lens bends rays outward; you get the perception that objects are smaller or farther away. There is no overall bending of light for a flat lens. You perceive the object as it is.

Now that you know a little about light and lenses, are you ready to let your eyes and brain be fooled?

Materials

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A newspaper page

Two rulers with metric measurements on them, preferably with dark markings

One transparency film or clear sheet protector

Drinking glass with water

Medicine dropper (optional)

Mobile device with a camera (optional)

Small transparent plastic cup or tiny tasting cup with a flat bottom (optional)

Preparation

Find a waterproof work area.

Select an article in the newspaper with a small font. You can use your ruler to measure the height of the letters; they should be a few millimeters high.

Procedure

Place the transparency film on top of a newspaper page.

Create a drop of water near the middle of the transparency film. Use a water dropper or your finger to let two or three drops fall on the film and merge into one bigger drop. Examine your water drop. Is the top of the drop surface flat, curved inward or curved outward?

Shift your transparency film so the water drop lays on top of the small print letters.

Close or cover one eye and look from above with the other eye at the letters under the drop.

Compare them with the letters next to but not covered by the drop. Do they look the same?

Does one appear bigger or smaller than the other?

Using two hands, carefully lift and hold the transparency film about half an inch above the newspaper, leaving the newspaper on your work surface. You might need help lifting the transparency film if you like to cover one eye with a hand.

Close or cover one eye and look carefully from above through the water drop at the letters on the newspaper. Do the letters appear different than when the transparency film rested on the newspaper? What happens when you move the transparency film farther up?

Move the transparency film up and down a couple of times looking from above through the water drop with one eye. How does your perception of the letters change as you move the transparency film farther up or back down? Why do you think this happens?

To measure the magnification factor of your water drop, put a ruler under your transparency film on your work surface and another ruler next to the drop on top of the transparency film, but be sure to prevent the ruler from touching the drop.

Lift the transparency film with the top ruler and water drop about 1.3 centimeters up and do your best to measure the length of a millimeter indication of the bottom ruler, as seen through the water drop. (You might need help lifting the transparency film together with the ruler and the water drop.) How many millimeters does one millimeter indication measure? This number tells you by what factor objects appear bigger when seen through your water drop. Are you surprised about the magnification factor you obtained?

Measure the magnification factor of your water drop when you lift the transparency film higher up. Does the magnification factor change when you lift the transparency higher? Could you find ways to make the magnification factor very big?

Repeat the activity, this time using a larger water drop. What happens to the curvature of the top surface of the water drop when you increase the size of the drop? Is it more, less or similarly curved? Do bigger water drops yield a different magnification factor?

Extra: What do you think would be the optimum water drop size and its height above the newspaper to increase the readability of your chosen newspaper line? Would you choose the same conditions if you were investigating the details of an insect?

Extra: Go around the house or the garden looking at objects through your new magnification glass. What kind of surprising details can you find?

Extra: You just used water to create a magnifying glass, making objects appear larger. What do you think will happen if you look through a bigger layer of water held in a cup? To test this, find a small or tiny transparent plastic cup with a flat bottom. To verify that the cup itself does not act as a lens, place the empty cup over a straight line found in your newspaper, look through the cup and observe. Does the line appear straight? Does it appear to have the same thickness if you lift the cup? If not, find another cup, because the bottom of this cup already acts as a lens. Why do you think it is important that the cup used to test if a layer of water in a cup acts as a lens does not act as a lens already? Once you have a cup that does not act like a lens, fill it with a layer of water (about 1.3 centimeters high) and look from above through the water to the letters on your newspaper. How do the letters appear? Does their appearance change when you move the cup up and down? You might want to shift to a font with larger letters. Can you calculate the magnification factor of this lens? Note that a magnification factor smaller than 1 indicates the object appears smaller than it is. As an example, a magnification factor of one half indicates that the object appears to be half its size.

Extra: Optical instruments often use a combination of several lenses. If you made both the water-drop lens and the cup-with-water lens, observe what happens if you combine both. You can put the transparency on top of your cup and look from above or ask a helper to hold your transparency film with the water drop as you hold the cup above it. What do you think will happen? Can you measure the magnification factors for both lenses individually (at the exact distance you are holding them when you combine both) and when combined? If you do this for a couple of different distances, you might be able to develop a formula.

Extra: Would other liquids also create magnification? Would one liquid work better than another? Think of oil or vinegar or soy sauce. Which ones do you think might work, and why?

Observations and results

Did you see how objects appear larger when looked at through a water drop? The surface of a water drop curves outward to make a dome. This outward, or convex, curvature bends light rays inward. The result is an enlarged image on the retina of your eye. The object appears bigger than it is.

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The surface of a smaller drop is even more curved, creating a bigger change in direction of the light ray. The result is a larger magnification. Changing the position of the water drop with respect to the letters and your eye will also affect the magnification factor. Due to something called the capillary effect, however, a layer of water in a cup shows a surface that is slightly bent inward. It will act as a concave lens that bends the light rays outward. As a result, letters seen through the layer of water in a cup appear smaller than they are. When you combine several lenses, the magnification factor of the set of lenses is the product of the magnification factors of the individual lenses.

Any clear liquid will work as a lens. As long as the bottom and top surfaces of the layer or drop are not parallel, the lens will change the appearance of the object. Depending on the liquid, the magnification factor of similar drops made up of different liquids will vary.

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