



Science Lab

6



6. Is it hard or soft?

Topic: Surface change by chemical reaction

Objective: Students will observe how a shell gets coloured and softens when kept submerged in a specific liquid – and then it getting hard again by keeping it out.

Vocabulary: shell, colour bar

Materials:

- 1 bottle of vinegar (white)
- 3 glass jars
- 3 markers
- 3 eggs
- A neon light

Development:

- **Read and look at the pictures.**

Step 1. Get the colour bars that are inside the markers and put them in the jars.

Step 2. Pour 1 cup of vinegar into each jar – make sure all the colour inks out.

Step 3. Add the eggs (one in each jar) and comment if something is happening.

Step 4. Leave the eggs in the jars for one day.

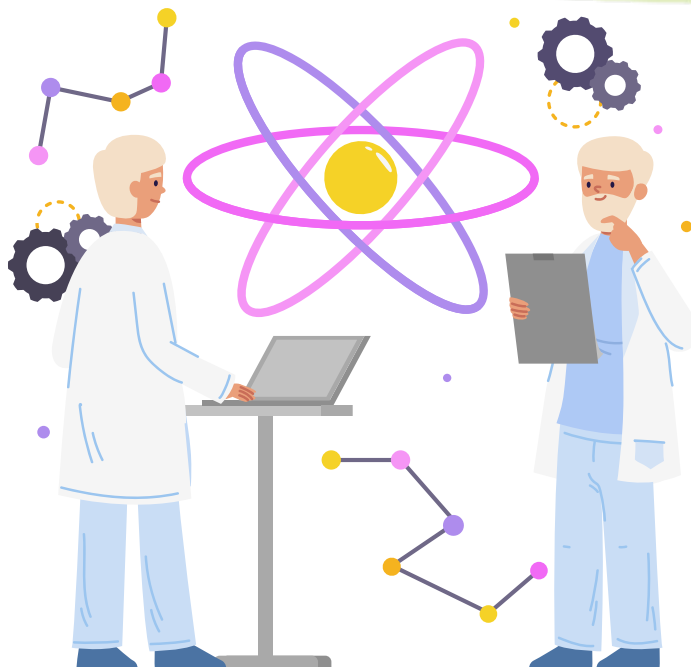
Step 5. Take out two of the eggs and feel them – comment.

Step 6. Bounce one of the eggs a few times on a surface – from a short distance – did it break?

Step 7. Try bouncing a second egg from a higher point – did it break?

Step 8. Feel the third egg to make sure it got soft – put it on a surface and leave it there for a day, what happened with it? Is it soft? Was there a different change?

Note. You can use the neon light in a dark area to enjoy the colour view.



Step 1.



Step 2.



Step 3.



Step 4.



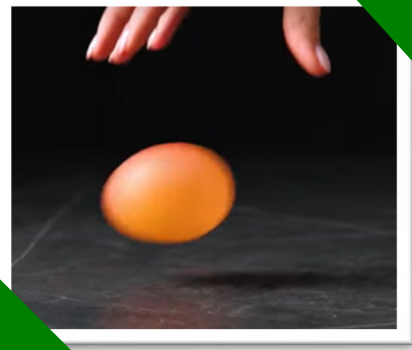
Step 5.



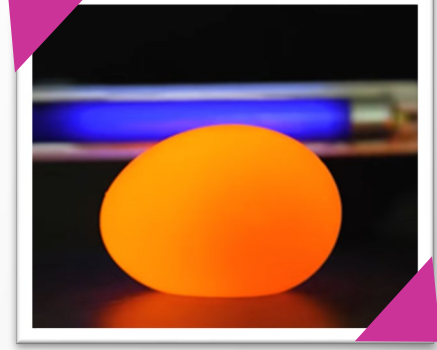
Step 6.



Step 7.



Step 8.



Tell us...

Read and write YES or NO.

1. You painted the eggs before putting them in the jars. _____
2. Markers have a colour-pad that makes the colouring happen. _____
3. The change from hard to soft on the eggshell took two days. _____
4. Water was the liquid that made the change happen. _____
5. The breaking was provoked by the softening on the eggshell. _____

Glue a picture of your project finished!

Is it hard or soft?

Glue your
picture here
:)

1. What was your favourite part of the project? _____.

2. What, exactly, did you like the most?
_____.

3. Extra notes on what you observed during the project. _____

_____.

4. Can you see or apply the information from the project in real life? YES / NO
Explain: _____
_____.

5. Was it easy to get the materials for the project? YES / NO
Explain: _____
_____.