

Chapter 4 : Sorting Secrets Of Material

Curricular Goal :

CG-1 Explores the world of matter, and its constituents, properties, and behaviour.

Competencies :

C-1.1: Classifies matter based on observable physical and chemical characteristics.

Learning Outcome :

1. Describe the properties of matter, such as hardness, solubility, transparency, etc.
2. Classify materials as soluble and insoluble, transparent, translucent and opaque.
3. Conduct simple experiments to check solubility of solid materials in water / liquid in water.

STORY 4: SORTING SECRETS OF MATERIAL

Tomba and Athoiba while waiting for their home tutor.

Athoiba,
what about a
contest now?

A contest
about what?

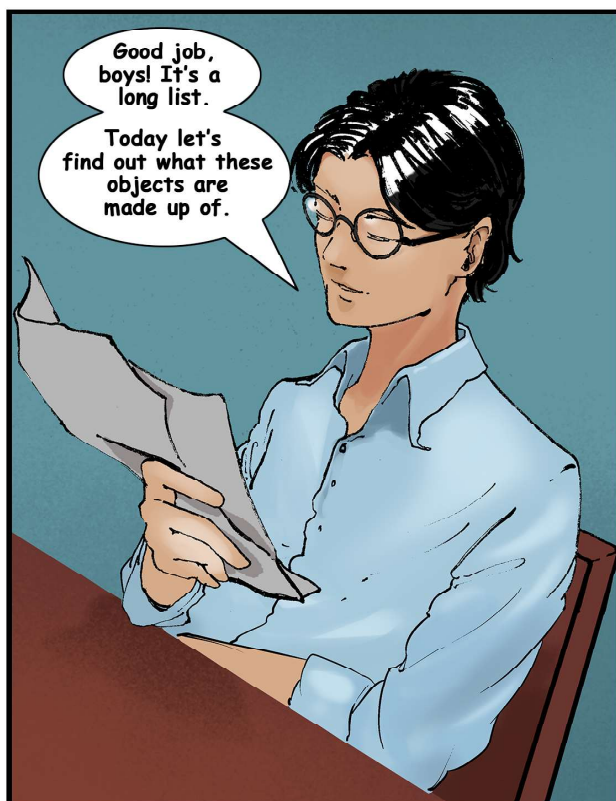
Well...Let's see
who finds the maximum
objects within 1 minute!

Achou their tutor, enters.

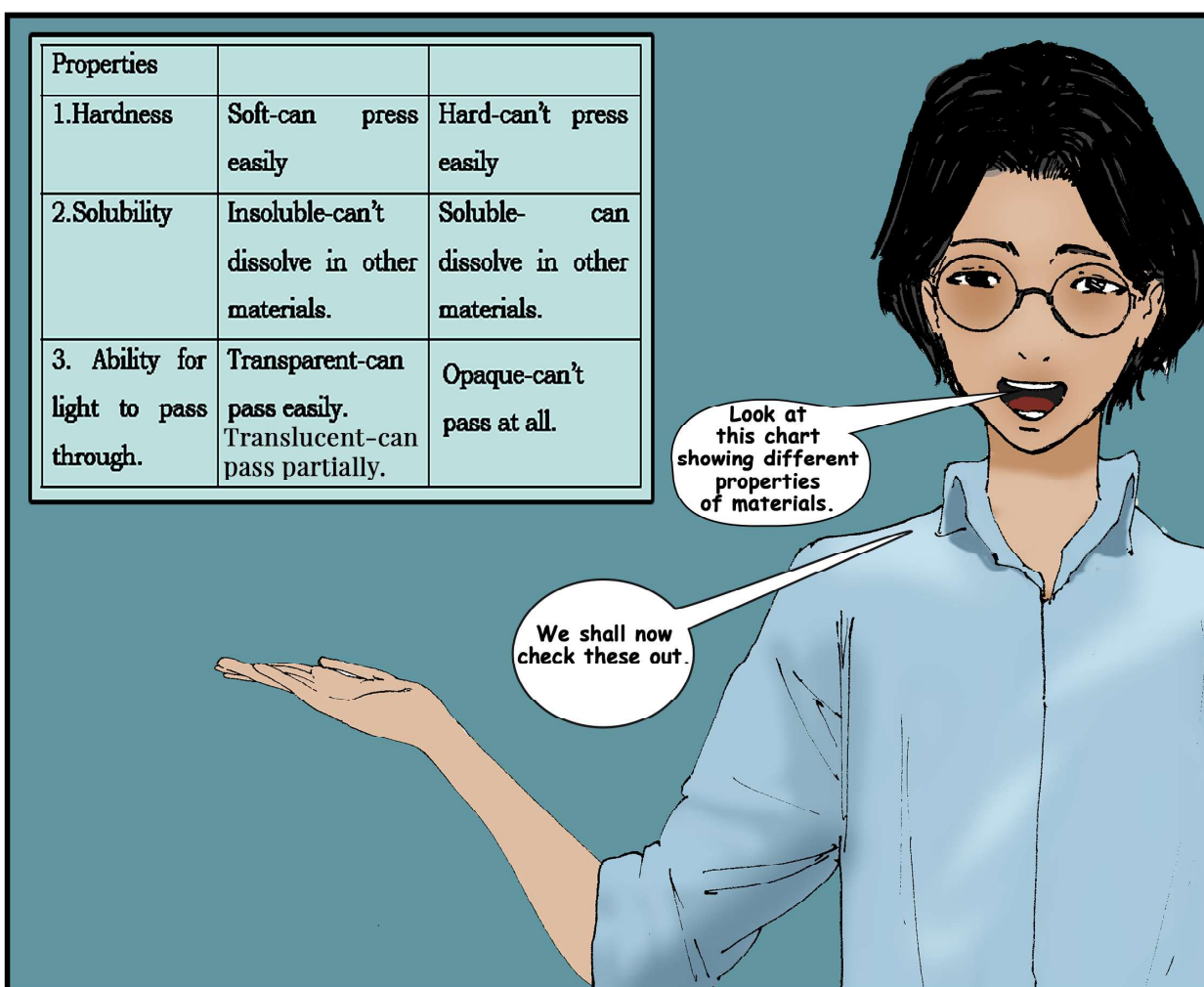
What's up,
boys?

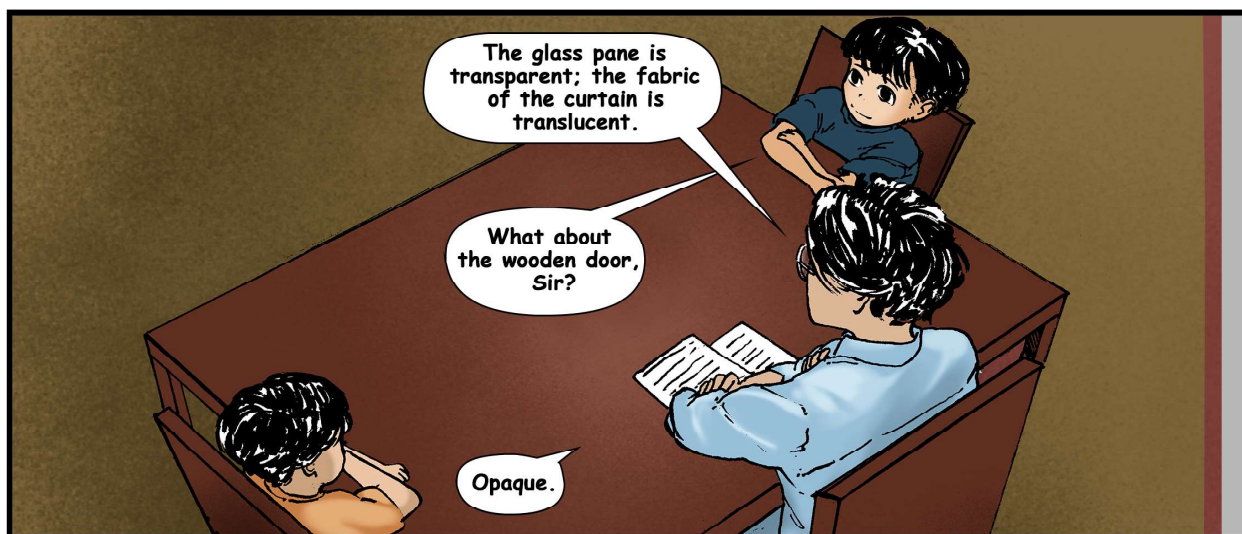
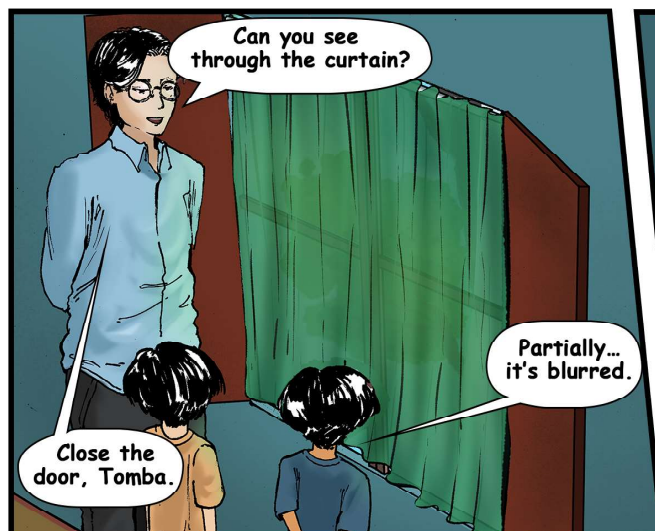
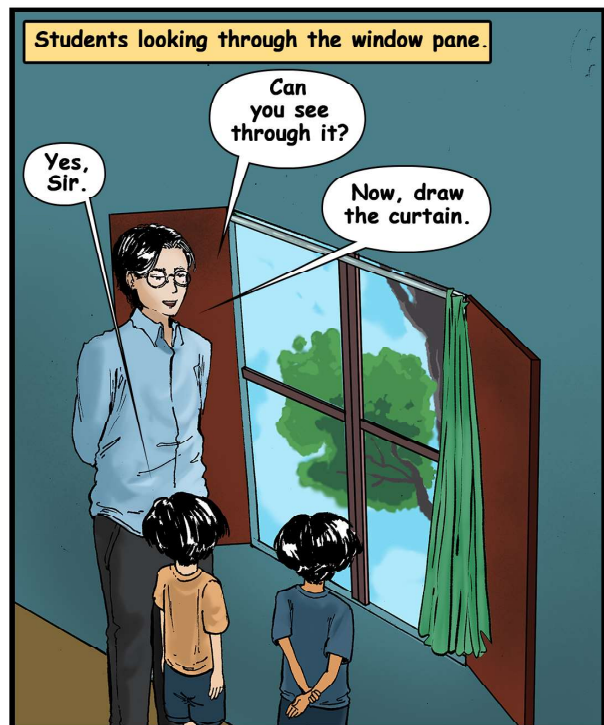
Sir,
we're making a
list of objects
around.

Sounds
interesting!
Let me check
the list.



Properties		
1.Hardness	Soft-can press easily	Hard-can't press easily
2.Solubility	Insoluble-can't dissolve in other materials.	Soluble- can dissolve in other materials.
3. Ability for light to pass through.	Transparent-can pass easily. Translucent-can pass partially.	Opaque-can't pass at all.





Meanwhile Tomba's mother brought tea for them.



On seeing the tea leaves.

Sir, why can we see the tea leaves but not sugar in the tea?

Good question. Let's do a simple activity to understand that.



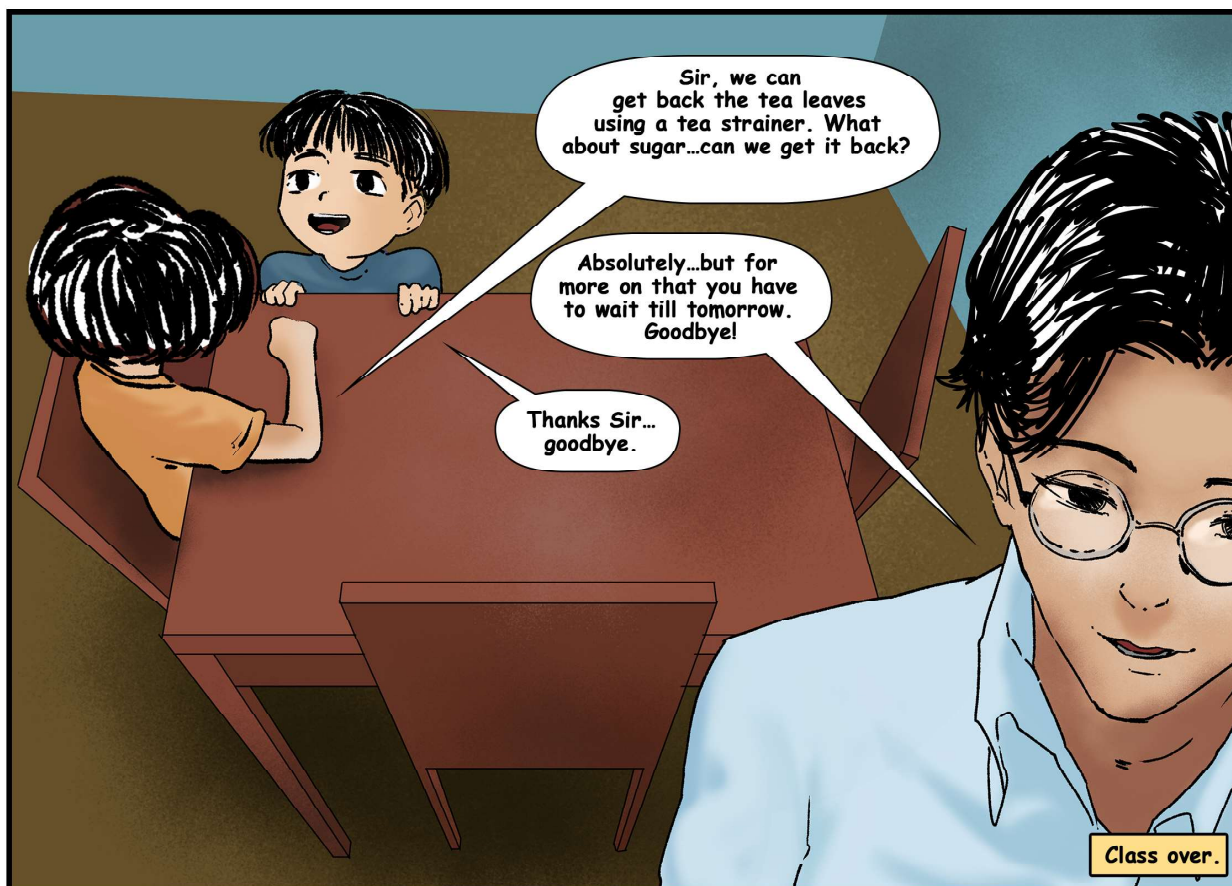
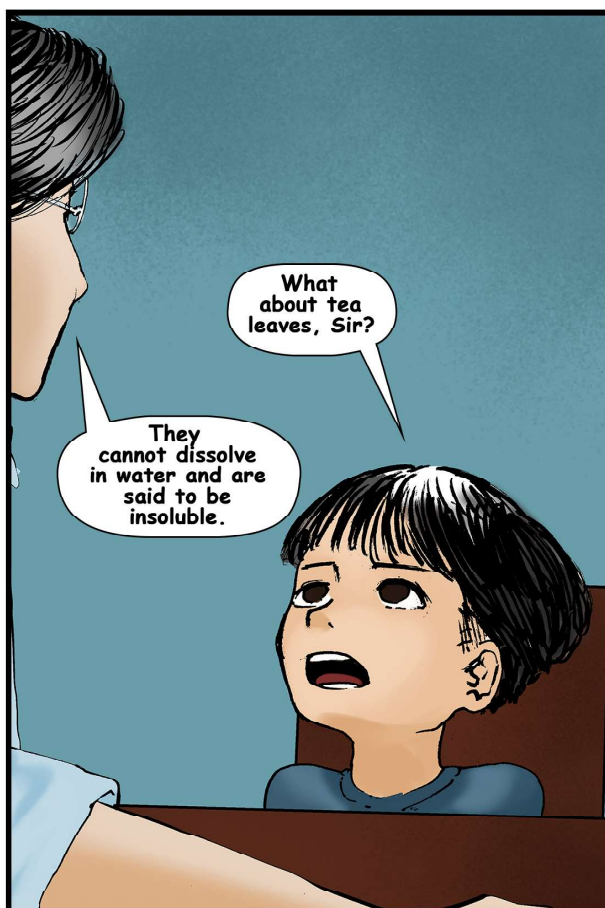
Students mixing sugar and water as told by Achou.

Can you see the sugar?

No, Sir.

That's because sugar is soluble in water.





Activity

1. In a group of three, conduct a simple experiment to test whether the following objects are transparent, translucent or opaque. Write down your result.
 - a) A plastic ruler
 - b) A sheet of tissue paper
 - c) An apple.