

# UNIT 1: MATTER AND MATERIALS

## STORY. PART 1

Once upon a time on a very snowy, windy and cold day with temperatures below zero, there was a girl named Little Red Riding Hood.

Her hood was red, her basket was big and inside....

What do you think she had on her basket?

There were lots of things. She had a litre of milk, a jar of 500gr of honey, a piece of bread, a bottle of water, some salt, a pair of scissors, butter, a mobile phone, two balloons, a candle, some soup.....

She was on her way to visit her grandma because she was sick despite being her birthday.

COUGH COUGH ...

When suddenly, among the trees of the forest, a shadow appeared...

Who do you think it is?  
The wolf!

She ran away as fast as she could to her grandma's house.  
The wolf had an accident and fell flat on his nose.

**ACTIVITY 1. Classify:**

SOLID	LIQUID	GAS

- **SOLID** a jar of honey, a piece of bread, a pair of scissors, butter, a mobile phone.
- **LIQUID** milk, a bottle of water, butter.
- **GAS** balloons.

**ACTIVITY 2. Experiment. Your teacher will bring different materials to demonstrate the changes of state.**

**Changes of state.**

1. From solid to liquid. Melting. (frozen bottle of water) (A piece of butter to let it melt)
2. From liquid to solid. Freeze. (bring a candle and a lighter or matches)
3. From liquid to gas. Evaporation. (bring a kettle)..
4. From gas to liquid. Condensation (Prepare a very hot soup to cover it up)

**Activity 3:** Show students the objects that Little Red Riding Hood brought in her basket. Students touch the objects and try to find out what they have in common.

We suggest they hold two objects, one in each hand and compare them.

What do they have in common?

Now, we introduce the concept of **mass**.

*Matter is anything in the universe that has mass and volume. (except heat, sound and light which are forms of energy). Living things and non living things even the air we breath and the stars are matter.*

**Activity 4. Mass Experiment: (5 objects).**

Prediction (place the objects on table from heavier to lighter) and afterwards with the scale they check the prediction.

OBJECTS	Weight Gr/Kg	Size (cm)	Volume (ml)
Balloons			
Butter			
Bottle of water			
Jar of honey			
Bread			
Scissors			
Mobile phone			
Milk			

A. Which object is the heaviest?

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B. Which object is the lightest?

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C. Which object is the biggest?

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D. Which object is the smallest?

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E. Which object is takes up more space?

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F. And less space?

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*Conclusions:* *The more mass they have, the heavier the object is.*  
*The units we use for measuring mass are (gr, kg)*

**Activity 5. Volume Experiment:** (with 5 objects)

Predict and discuss which objects will occupy more or less space.

You can order them from the one you think occupies more space to less space.

Then check the real volume by introducing the objects in a transparent jar with water, so you can see how much the water rises depending on the volume they occupy.

**Conclusions:** VOLUME is the space an object occupies.  
It is measured in Litres.



# UNIT 2

## SIMPLE AND COMPOUND MACHINES:

### STORY. PART 2

Little Red Riding Hood ran away to her grandma's house. In the house, grandma was in her room resting. She wanted to prepare tea and held the door open using a **wedge**. She turned the **kettle** on to prepare the tea.

To protect themselves from the wolf, she **nailed** some pieces of wood onto the windows using a **hammer**.

The wolf after falling down couldn't walk very well so he took a **wheel chair** trying to catch Little Red Riding Hood.

He couldn't get into the house because there were stairs (remember he couldn't walk!).

What could he do to get into the house?

He went to the backyard where there was **ramp**. (Show flashcard)

He went up the ramp to open the door but it was locked.

What do you think the wolf used to open the door?

**A lever** (Show flashcard)

The wolf got into the house, got into the room and said to Little Red Riding Hood and said.

Why were you so scared of me? I just want to say Happy Birthday and to share my cake with you!

Ohhh how kind of you!

And they had a nice cup of tea with a piece of cake .

They were all having a lovely afternoon when all of a sudden, a wood cutter appeared whistling and riding his **bicycle**. He had heard the hammering noises and wanted to help granny in case she was in trouble. To do so, he had brought a big crain to help him entered the house down the chimney.

## Activities 6

1. What objects did the wolf use?  
Why?

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2. This objects are machines.  
Machines make our lives and  
work easier. Name other objects  
we use in our daily lives.

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3. What's the difference  
between these objects?  
(Flashcards)

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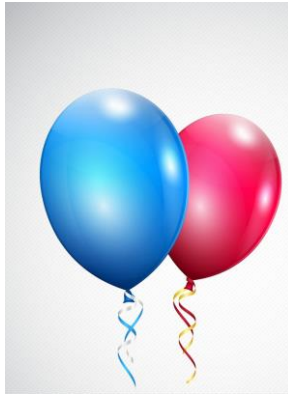


**Activity 8.** Complete:

\_\_\_\_\_ **machines** are simple tools used to make work easier.

\_\_\_\_\_ **machines** have two or more simple machines working together to make work easier.





# FLASHCARDS UNIT 1

. A litre of milk





. A piece of bread



A jar of  
500gr of  
honey

# A bottle of water



# Some salt



# A pair of scissors



# Butter



. A mobile phone



. A candle

Some soup



. Two balloons



**FLASHCARDS UNIT 2**







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