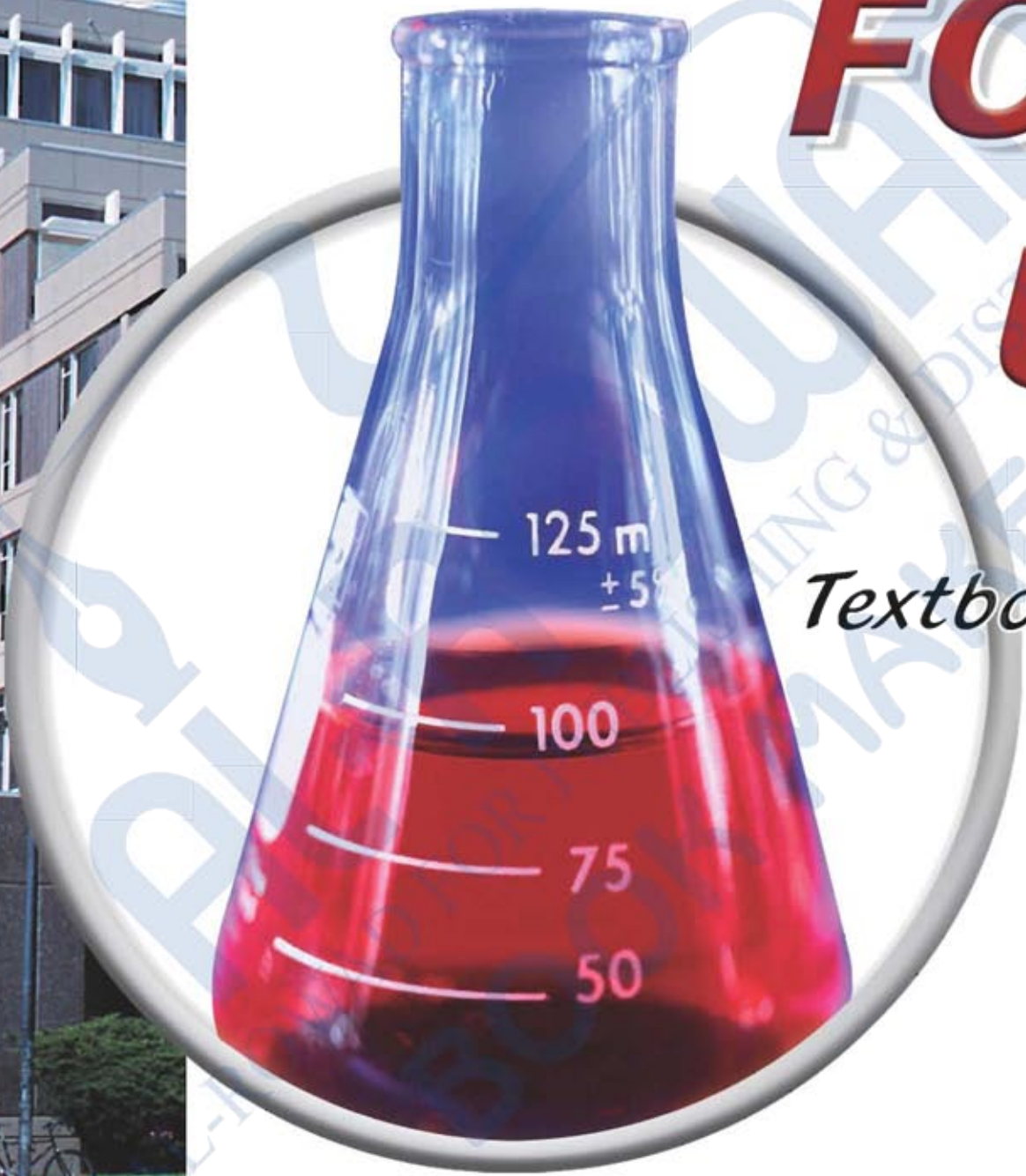
SCIENCE FOR US



Textbook 6

AL-ROWAD
www.alrowadpub.com

Introduction

This is the sixth book of the "Science For Us" series. It consists of seven units.

Each unit begins with a summary of the main learning outcomes for students.

Each unit consists of investigation activities, keywords and simple information presented along with pictures to support the student 's understanding of the concepts.

Some pages have a link to the workbook to give students an opportunity to apply what they have learnt.

This book is designed to meet the needs of schools that choose to teach Science in English, and that aim for a high level student understanding.

Contents

When you have this go to the workbook.

Young Scientist

By the end of the unit, learners will be able to:

*design a fair test by identifying key factors.
*develop skills of estimation of quantities such as length.
*express results in the form of bar charts.
*classify data and observations and draw conclusions from the classification.

Observing and Classifying

Can you help me group these people?

Hello! I have grouped them by gender.

Boys

Girls

Oh really! I have grouped them by height.

Short

Tall

Hmmm. I'm better than both of you. I have grouped them by hair colour.

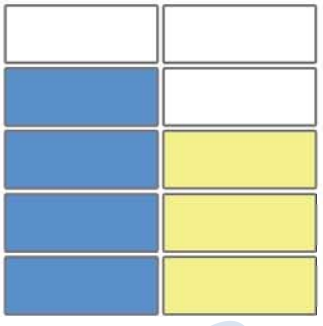
Brown

Black

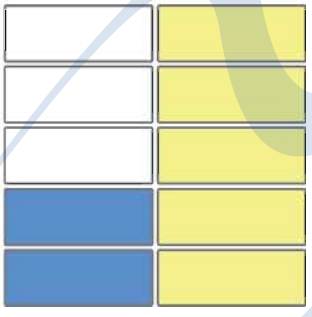
Blonde

Hmm. Ok let me think of other ways that I can group them. Can anyone help me please?

Now let's express our results in bar charts.
Can you help me?



Boys Girls



Tall Short

Brown Black Blonde

Ok! Here is my bar chart.

What a great job, now come and check mine.

Thank you. You have helped me very much.

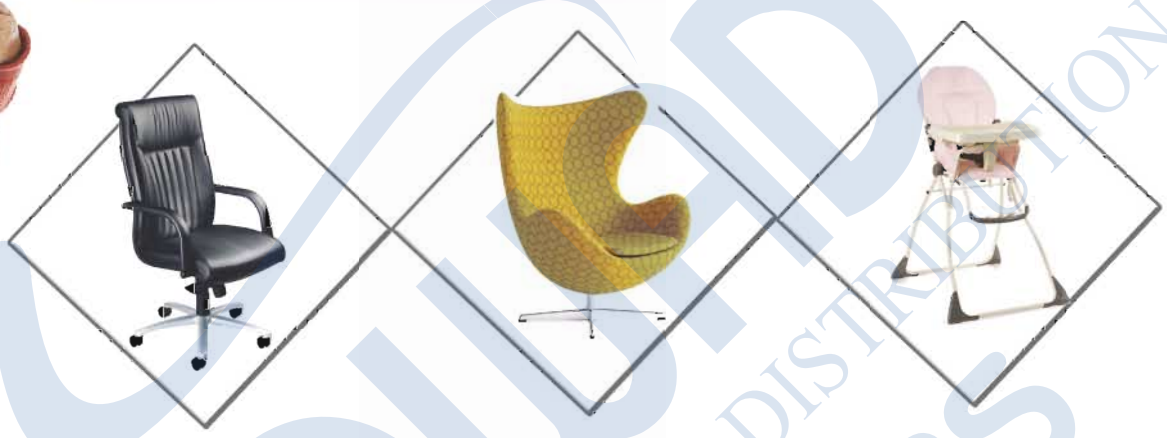
Put on your thinking cap.

What senses did we use to classify these people?

Workbook pages: 6-13 , Activities 1-3

Measuring + Estimating

Which chair belongs to my baby?
Explain why .



Measuring lengths

The scissors are 6  long.

Put on your thinking cap.

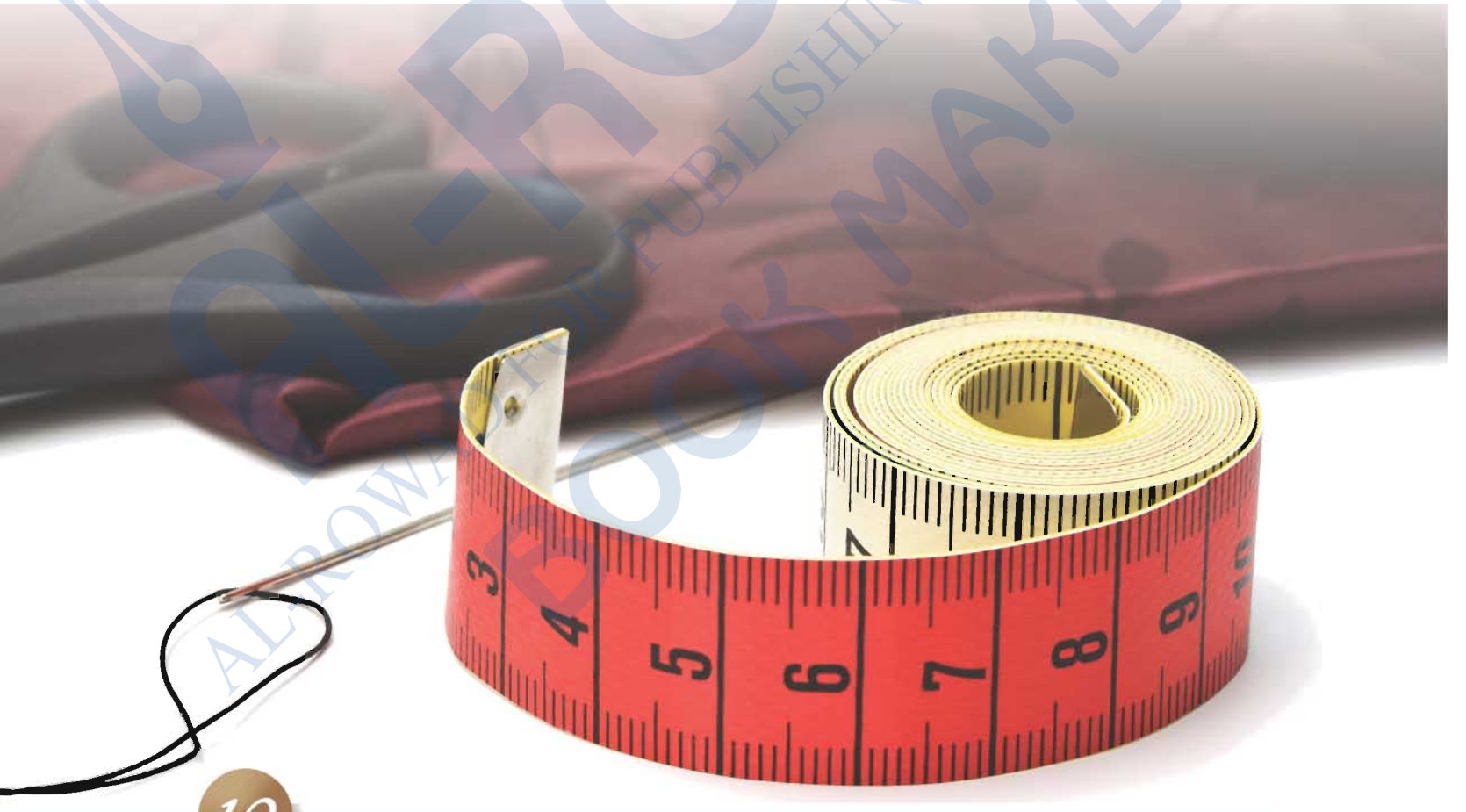
Can you measure the scissor in any other way?

Measuring and Estimating

Mona went to the tailor to have new clothes made.
The tailor began to measure her.
Mona: What about estimating?
Tailor: I cannot make your clothes by estimating, I have to measure your height, waist, etc...., in order to make your clothes exactly your size.

ACTIVITY:

Imagine that you want to be a tailor.What you need to measure, and what would you measure?.
Let's start now.

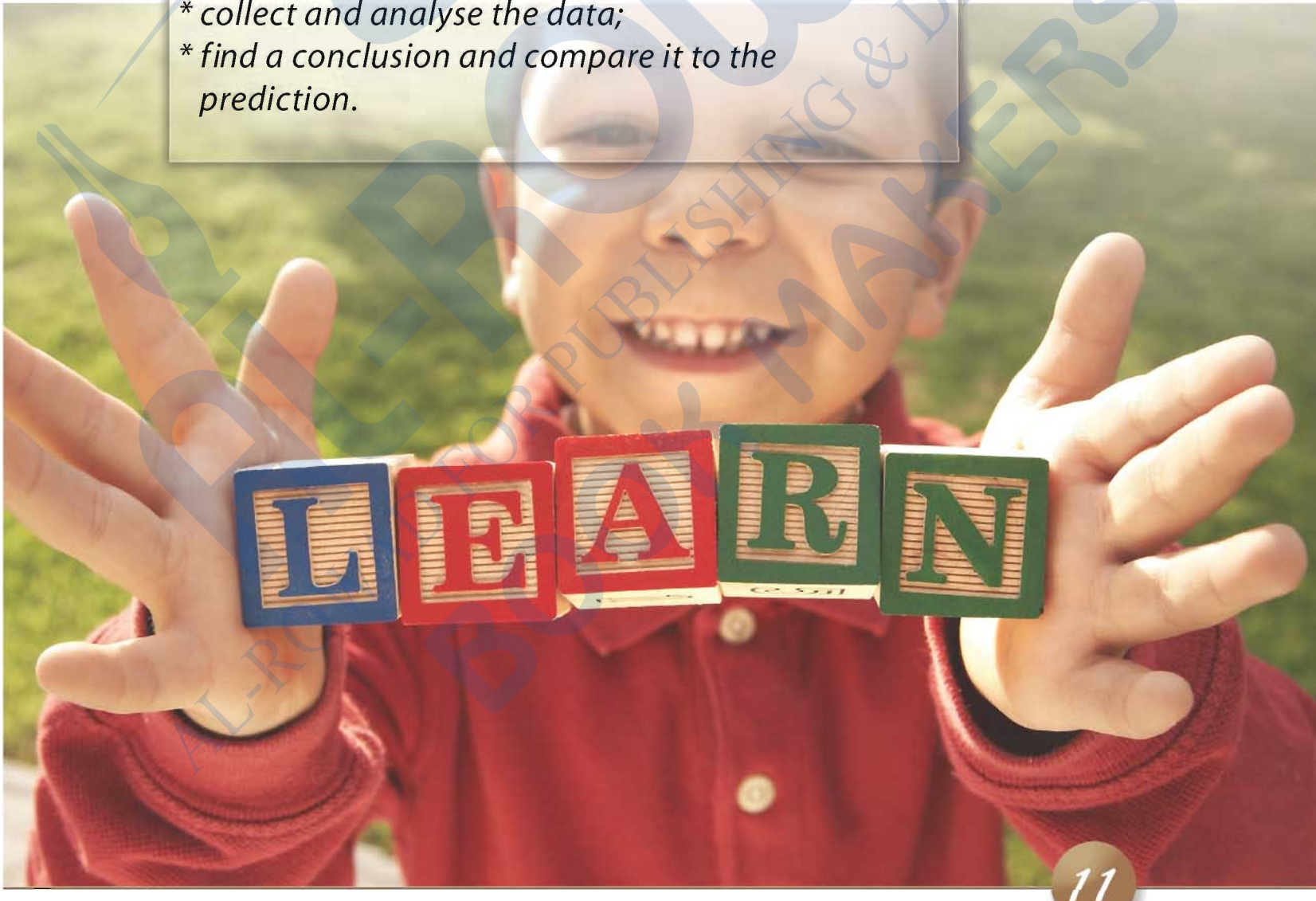


Let's Investigate

What's It All About?

Investigating means:

* observe and recognise the problem;
* think about the best way to solve it (predict);
* plan and experiment to test the prediction;
* collect and analyse the data;
* find a conclusion and compare it to the prediction.



Investigation "1"

Compare between floating and sinking.

Investigation "2"

What is the source of energy for this bulb?

Can you see the light?

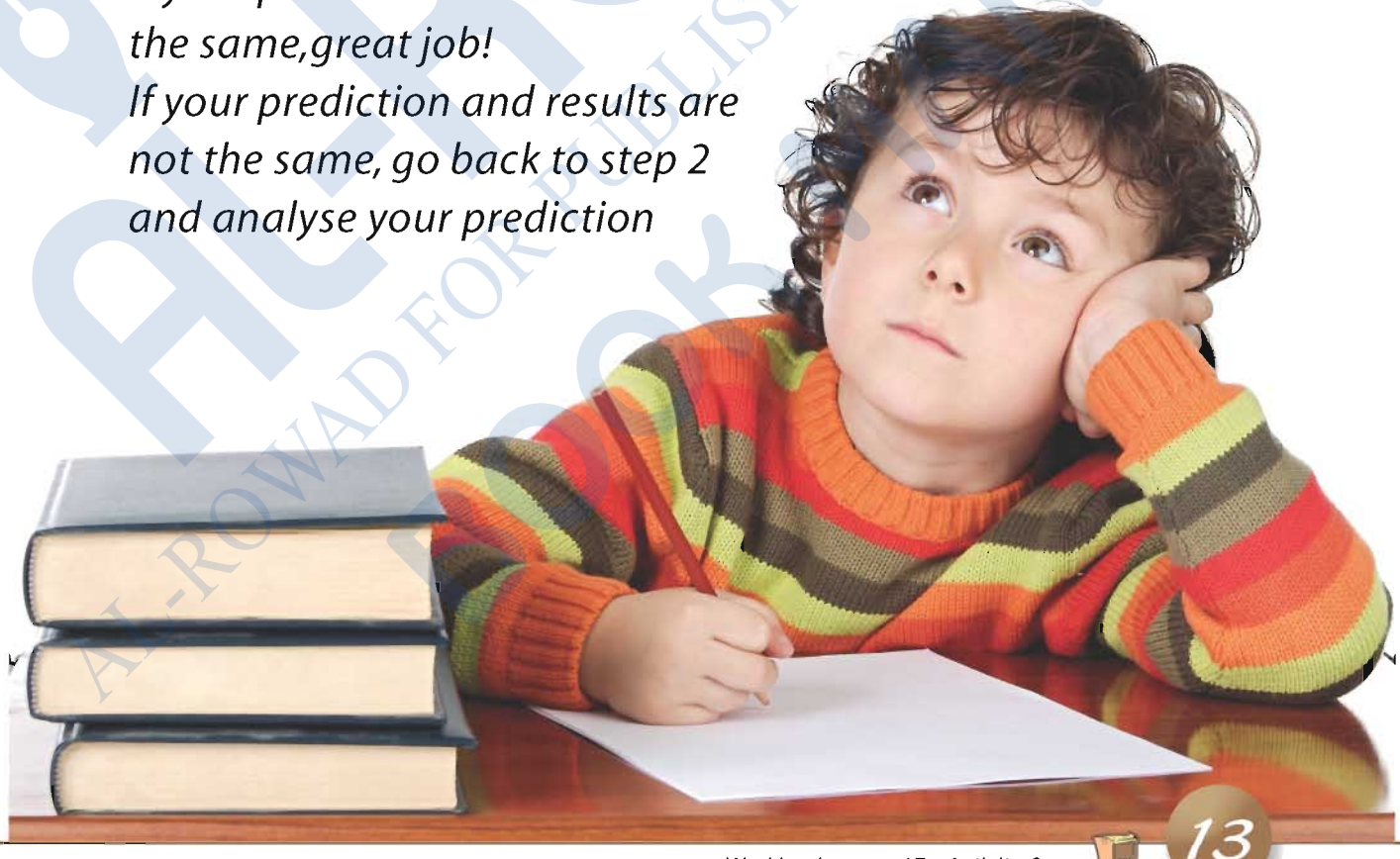
Explain why?

Finally, what's this all about?

How do I carry out an investigation in Science?

1. Observe a problem.
2. Make a prediction.
3. Plan what you need (materials).
4. Plan the practical work.
5. Carry out the experiment.
6. Record the results (observation).
7. Explain the results (conclusions).
8. Compare your results with your prediction.

If your prediction and results are the same,great job!
If your prediction and results are not the same, go back to step 2 and analyse your prediction

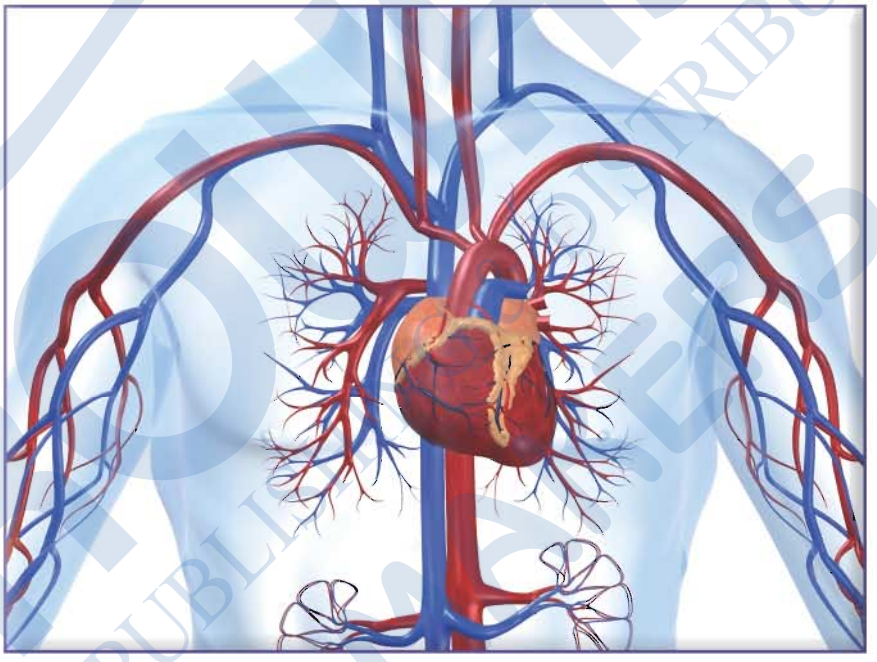


UNIT

1

My Body

Cells

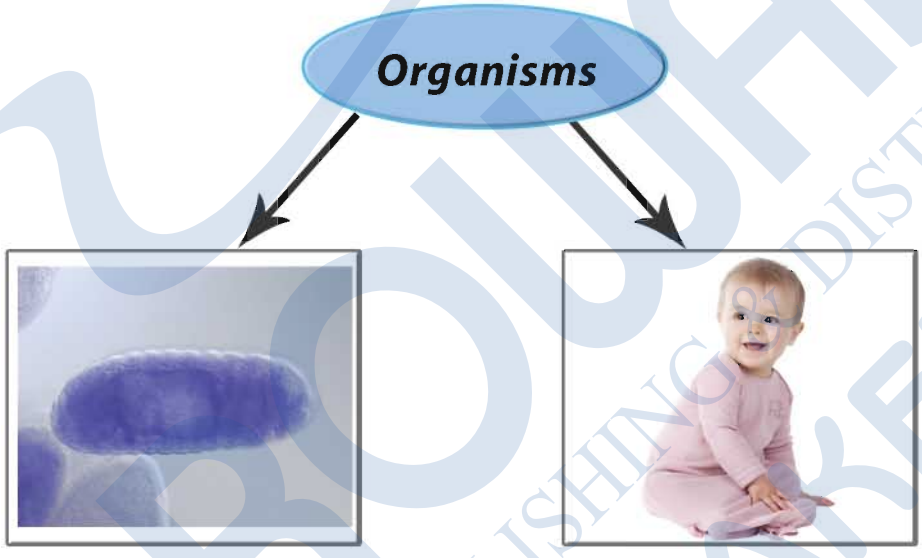


By the end of the lesson, learners will be able to:

* recognise that cells are the fundamental building blocks of living organisms.
* identify that cells can have specialised features for specific functions.
* use specialised equipment correctly, including a simple microscope.

Cells are the building blocks of all living things.

All living things are made up of cells. Some organisms, such as bacteria are made up of only one cell. Larger organisms like humans are made up of many cells.



Cells were not discovered unitl the 1600's after microscopes were invented. This is because cells are too small to be seen with the naked eye. Microscopes magnify or make cells look big enough to be seen. If we use a very powerful microscope, we can see the small parts inside cells that help them function.