

*Title Page*

*Some famous Iranian scientists/scholars/elites*

*Who are they?*

*What are they famous for?*

*Sa'di Shirazi*

*Farabi*

*Omar  
Khayyam*

*Poet*

*Thinker  
Philosopher*

*poet  
Mathematician*

*Persian literature*

# LESSON 3

Avicenna



physician

astronomer

Thinker

Knowledge

knowledgeable

Science

scientific

scientist

gain/acquire/seek/get /have knowledge

knowing information, understanding, skill

importance

ارزش

## The Value of Knowledge

دانش

Value = importance / worth  
Valueless/ valuable

search for/look for

Seek knowledge  
from the cradle to the grave

a moving bed

a hole for burying a dead body

پیامبر/رسول

مقدس

Holy Prophet (PBUH)<sup>1</sup>

زه کھواره تا گور دانش پیجو

صلوات

1. Peace Be Upon Him سلام خدا بر او باد

Holy=sacred/saint

Prophet=God's messenger

Peace=no war /in a good condition

باد =سلام و درود خدا پر او

Holy=connected with God or a particular religion

How does knowledge develop ?  
How are products made?  
What are the name of these places?  
Who works there?

## What?

## Who?

### A science laboratory=lab

laboratory experiments/tests

do experiment  
scientific research  
testing

in a/the laboratory  
the school lab



pharmacist  
chemist  
physician

### A library

study  
research  
borrow#lend  
volume  
at a/the library  
in a/the library

a public/university/school library



librarian

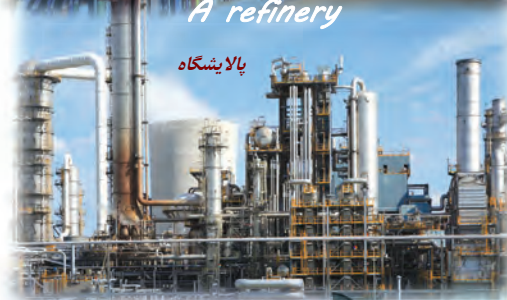
### A refinery

refine=make pure

a sugar refinery

an oil refinery

petroleum  
petrochemicals  
crude oil



experts  
engineers  
technicians

### A research laboratory

do research



researcher  
astronomer

fields of study: medicine , biology, chemistry , astronomy, math, physics, art, language, philosophy, translation

Experts: physician, biologist, chemist, astronomer, mathematician, artist, linguist, philosopher, translator

# Inventors Or Discoverers

# Get Ready

## Part One

*Necessity is the mother of invention*

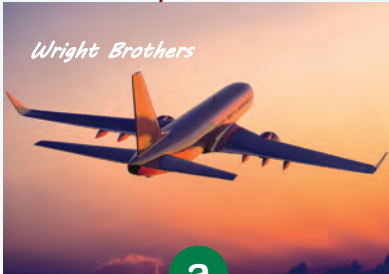
*invent*  
*inventor*  
*inventive*  
*inventively*  
*invention*

*innovation*

*Who invented these amazing things?*

**A. Match the pictures with the sentences.** *The room was lit only by a single 40-watt light bulb*

*a plane*



**a**

*take people to another place*

*a light bulb*



**b**

*turn on/off a light*

*light up*

*turn on*  
*turn off*

*dark#light*

*a telephone*



**c**

*call somebody*

*a digital camera*



**d**

*take a photo/picture*

- This gives us an easier life **when** there is no **light**.  
وقت کے نور #darkness
- People use this to **talk with** someone in another place.  
صحبت کر دینے یا
- We use this to **take and keep pictures** very easily.  
پہ آسانی = simply
- This helps us travel very fast to **far** places.  
دistant#near

جدید ترین قدیمی ترین

**B. Order the followings from 'oldest to newest'.**

Charles and Vincent Chevalier (camera box), French  
Nicéphore Niépce (the inventor of photography)

in camera  
off camera  
on camera  
in front of the camera

	a	b	c
<p><b>Camera</b></p> <p>a TV/video camera</p>			
<p><b>Light bulb</b></p>			
<p><b>Telephone</b></p>			
<p><b>Airplane</b></p>			

*It is a device that takes pictures*

*digital camera*

*The light bulb changes electricity to light.*

*low consumption lamp*      *bulb*

*We use telephone to talk with people in far/distant places*

*the newest*      *the oldest*

*rubber tires*

*Airplane carries people and things very fast*  
*A plane can take people to another place more quickly than other transportation means*  
*take the plane*

- چه دانشی برای ساخت یک ساختمان بلند مرتبه یا آسمان خراش لازم است؟ چه افرادی در ساخت این نوع ساختمان ها همکاری می کنند؟
- فکر می کنید چه تفاوتی بین آزمایشگاه های تحقیقاتی قدیمی و جدید وجود دارد؟
- تحقیقات دانشمندان هسته ای ایرانی در چه زمینه هایی است؟

What kind of knowledge do we need to build a skyscraper? Who are involved constructing in such buildings?

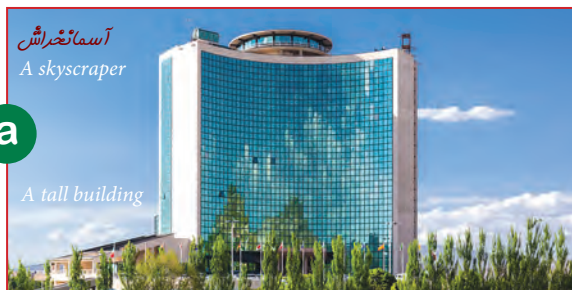
What's the difference between old and modern laboratories?

.What are the fields of study for Iranian nuclear scientists?

## Part Two

### A. Match the pictures with the words.

architecture



skyscraper

well-designed  
materials

well arranged and equipped

chemistry



c scientists

b a laboratory

a a building

physics



a modern age/car/building

### B. Choose an appropriate adjective for each word above.

مدرن/جدید modern ... buildings, laboratories

Iranian ... scientists/ poets/ engineers / architects

An old ... laboratory, building, friend

medicine= the study and treatment of diseases and injuries

famous= well-known#infamous=notorious

build= make /construct#destroy

cool!#awful/terrible

# Conversation

I believe that it is believed that i can believe my ears/eyes



believe (you) me=used to emphasize that you strongly believe what you are saying

accept my words

believe belief



در حال ترک  
Roya and Mahsa are leaving the library.

**Roya:** When I came in, you were reading a book. What was it?

**Mahsa:** I was reading a book about famous Iranian scientists.

**Roya:** But such books are not very interesting.

**Mahsa:** At first I had the same idea, believe me!

**Roya:** Did you find it useful?

**Mahsa:** Oh yes. Actually I learned many interesting things about our scientists' lives.

**Roya:** Like what?

**Mahsa:** For example Razi<sup>1</sup> taught medicine to many young people while he was working in Ray Hospital. Or Nasireddin Toosi built Maragheh Observatory when he was studying the planets.

**Roya:** Cool! What was the name of the book?

**Mahsa:** Famous Iranian Scientists.

at first

at last

at the end

He's a really cool guy.

It's a cool movie.

1. Also Rhazes in English

cool#warm

## Questions

Answer the following questions orally.

1. Were Mahsa and Roya in a laboratory?
2. Who came to the library sooner, Mahsa or Roya?
3. Do you know any interesting story about famous scientists?



کاشف الکل کیست؟  
رصد خانه مراغه را چه کسی ساخت؟

Who discovered the alcohol?  
Who built Maraghe Observatory?  
Does Iran have any famous scientists?  
Can you name some Iranian scientists?

have a belief  
hold a belief

Don't believe a word of it  
believe (that)...  
believe in  
believe of

Do you believe in God?

Are you sure he was lying? I can't believe that of him.

واژگان و عبارتهای جدید

# New Words and Expressions



## A. Look, Read and Practice.

make a great attempt/effort



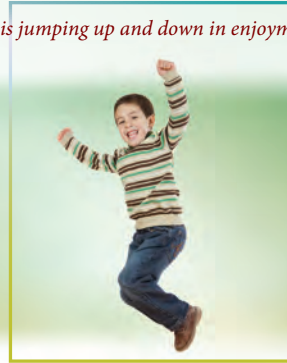
سعی می کند

Melika **tries** hard to learn English.

try to do something  
try doing something  
trial version  
tried  
try for  
try on

energy-energetic

He is jumping up and down in enjoyment



active  
inactive

less energetic  
more energetic  
more active  
less active

فعال - پر انرژی

be active physically

Babak is an **energetic** boy.

having or needing a lot of energy

energetic exercise  
highly energetic

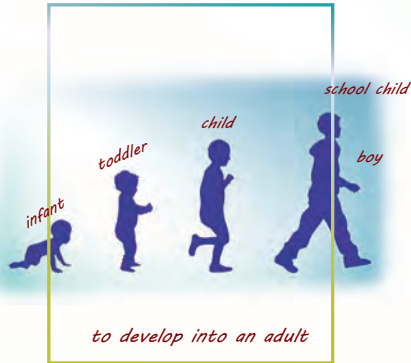
experimental



انجام دادن آزمایشات

The students **do experiments**  
in the school laboratory.

do/perform/conduct /carry out an experiment  
laboratory experiments  
in an experiment  
during an experiment  
experiment on somebody/something  
experiment with somebody/something



بزرگ شدن

Children **grow up**

quickly= rapidly. به سرعت

become older  
to develop gradually

Why don't you grow up?



*Facts can be established by observation and experiment*

*feel well = health condition  
feeling= emotion*

*feel sick  
feel better  
feel sorry  
feel bad  
feel + adj= feel happy/sad*

*scientific/medical/academic research  
do/conduct/carry out research*

*feel good/bad/well*

*feel - felt*

*research in  
research into  
research on*



انجام دادن تحقیق  
She is **doing research**  
on blood cells.



احساس ضعف داشتن  
He has the flu and **feels weak.**  
#feel strong

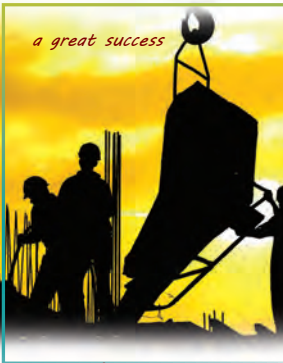
*research on something/somebody*

*catch the flu  
have the flu*

*successes and failures*

*succeed  
success  
successful  
successfully*

*succeed in  
unsuccessful*



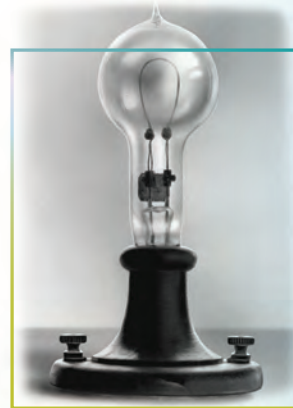
a great success  
موفقیت

#impossible  
No **success** is possible  
without hard work.  
سخت کوشی

*success#failure  
key to success  
have success in  
make a success of*

*achieve/attain/enjoy success*

*a chance of success  
a hope of success*



اختراع کرد  
Edison **invented**  
produce or design something that has not existed before  
the first light bulb.

*invent  
inventor  
inventive  
inventively  
invention*

*innovation*

*Louis Braille invented an alphabet to help blind people*

solve  
 solution  
 solve an equation/a puzzle=do a puzzle  
 solve the problem  
 solve an issue/a crisis  
 an attempt to solve something  
 solve a mystery/ a secret  
 solve someone's difficulties

· develop new technology  
 developing products  
 develop a strategy/system/program  
 develop a method/model/technique

to make/create/develop/produce/generate/form  
 something from/out of something  
 to make/form something into something  
 to make/produce wine  
 to create/develop a new product  
 to create/produce/generate income/profits/wealth  
 to produce/generate electricity/heat/power



## B. Read and Practice.

حل کردن - پیدا کردن جواب

مسئله - مشکل

**solve**: to find an answer to a problem

We can help you **solve** your problems.

developed countries  
 developing  
 under the development

توسعه یافتن - بزرگ و بهتر شدن

**develop**: to grow or change into a stronger, larger or better form

improve

This book can **develop** your speaking skill. مهارت

belief in something/somebody  
 have/hold belief that...  
 a widely/commonly held belief  
 in the belief that...

باور - اعتقاد

**belief**: something that you believe

religious/political beliefs

Her **belief** in Allah gave her hope during difficult times.

·There is a general belief that things will soon get better

ترک کردن - رها کردن - واگذار کردن

**quit / give up**: to stop doing something

تسلیم شدن / کردن - نا امید شدن  
 ادامه ندادن

Fortunately, his father is going to **quit** smoking.

stop

He **gave up** his work without saying anything to us.

leave/abundant

پردون

He gave himself up to the police.

His teachers seem to have given up on him.

beyond belief  
 in the belief that  
 belief/about

هزاران

تعداد زیادی از

**thousands of**: a large number of things or people

There are **thousands of** things I want to do.

manufacture

**make = do - create - develop - produce - generate - form**

·She makes her own clothes

Who's doing the food for the party?

make a table/dress/cake

create jobs/wealth ایجاد شغل/سرمایه

to develop new software

ریز پردازنده

a factory that produces microchips

to generate heat/power/electricity تولید گرما/برق/الکتریسته

·Brainstorming is a good way of generating ideas

بارش ذهنی/فکری

·Rearrange the letters to form a new word

شکل دادن

H+ O forms H2O

When hydrogen and oxygen combine, they form a liquid we call it water