

# **INTRODUCTION TO SCIENCE**

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Introduction to science by J. Arthur Thomson

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**J. ARTHUR THOMSON**

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TO SCIENCE**



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# INTRODUCTION TO SCIENCE

BY

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## CONTENTS

CHAP.	PAGE
I THE SCIENTIFIC MOOD . . . . .	7
II THE AIM OF SCIENCE . . . . .	35
III SCIENTIFIC METHOD . . . . .	57
IV CLASSIFICATION OF THE SCIENCES . . . . .	81
V SCIENCE AND PHILOSOPHY . . . . .	124
VI SCIENCE AND ART . . . . .	166
VII SCIENCE AND RELIGION . . . . .	192
VIII THE UTILITY OF SCIENCE . . . . .	224
REFERENCES TO BOOKS . . . . .	251
INDEX . . . . .	255

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# INTRODUCTION TO SCIENCE

## CHAPTER I

### THE SCIENTIFIC MOOD

"For myself I found that I was fitted for nothing so well as for the study of Truth; as having a mind nimble and versatile enough to catch the resemblance of things (which is the chief point), and at the same time steady enough to fix and distinguish their subtler differences; as being gifted by nature with desire to seek, patience to doubt, fondness to meditate, slowness to assert, readiness to reconsider, carefulness to dispose and set in order; and as being a man that neither affects what is new nor admires what is old, and that hates every kind of imposture. So I thought my nature had a kind of familiarity and relationship with Truth."—FRANCIS BACON.

Before Science—The Practical Mood—The Emotional Mood  
—The Scientific Mood contrasted with the Others—Adjustment of Moods—Characteristics of the Scientific Mood  
—A Passion for Facts—Cautiousness of Statement—Clearness of Vision—Sense of the Inter-relatedness of Things—Culture of the Scientific Mood—Summary.

BEFORE SCIENCE.—We do not know much that is quite certain in regard to our early ancestors,

## 8 INTRODUCTION TO SCIENCE

but it is safe to say that man's relations with Nature were for a long time predominantly practical. We may recall the vivid picture which Æschylus gives of primitive men—living in caves, without fire, without wood-work, without system, without seasons, without foresight, a dream-life without science:—

“And let me tell you, not as taunting men,  
But teaching you the intention of my gifts  
How, first, beholding they beheld in vain,  
And, hearing, heard not, but like shapes in  
dreams,  
Mixed all things wildly down the tedious  
time,  
Nor knew to build a house against the sun  
With wicketed sides, nor any wood-work knew  
But lived like silly ants, beneath the ground,  
In hollow caves unsunned. There came to  
them  
No steadfast sign of winter, nor of spring  
Flower-perfumed, nor of summer full of fruit,  
But blindly and lawlessly they did all things,  
Until I taught them how the stars do rise  
And set in mystery, and devised for them  
Number, the inducer of philosophies,  
The synthesis of letters, and besides  
The artificer of all things, Memory  
That sweet muse-mother.”

In those early days the various moods that we are familiar with—such as the scientific, the artistic, and the philosophic—had not become defined off from an oppressive practical mood. Very gradually, however, Man got a firmer foothold in the struggle for existence, and was able to raise his head and look at the stars. He discovered the year with its marvellous object-lesson of recurrent sequences—a discovery which was one of the first great steps towards science, and he became vividly aware that his race had a history. He had time, too, for a conscious enjoyment of Nature, which came to mean more and more to him. Here and there, perhaps, some began to ponder over the significance of their experience. Gradually, at all events, as the ages passed, various moods became, as we say, differentiated from one another, and men began to be contrasted according as this or that mood was more habitual with them. Men of action, men of feeling, and men of thought, these were the three primary types, which are now-a-days split up into minor types. They correspond, obviously, to doing, feeling, and knowing; to hand, heart, and head; to practice, emotional activity, and intellectual inquiry. That we may better understand the scientific mood, let us consider for a little the others.

**THE PRACTICAL MOOD.**—First there is the