

**FIRST LESSONS ON
NATURAL PHILOSOPHY,
FOR CHILDREN**

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First Lessons on Natural Philosophy, for Children by Miss Mary A. Swift

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MISS MARY A. SWIFT

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FOR CHILDREN.

PART SECOND.

BY MISS MARY A. SWIFT.

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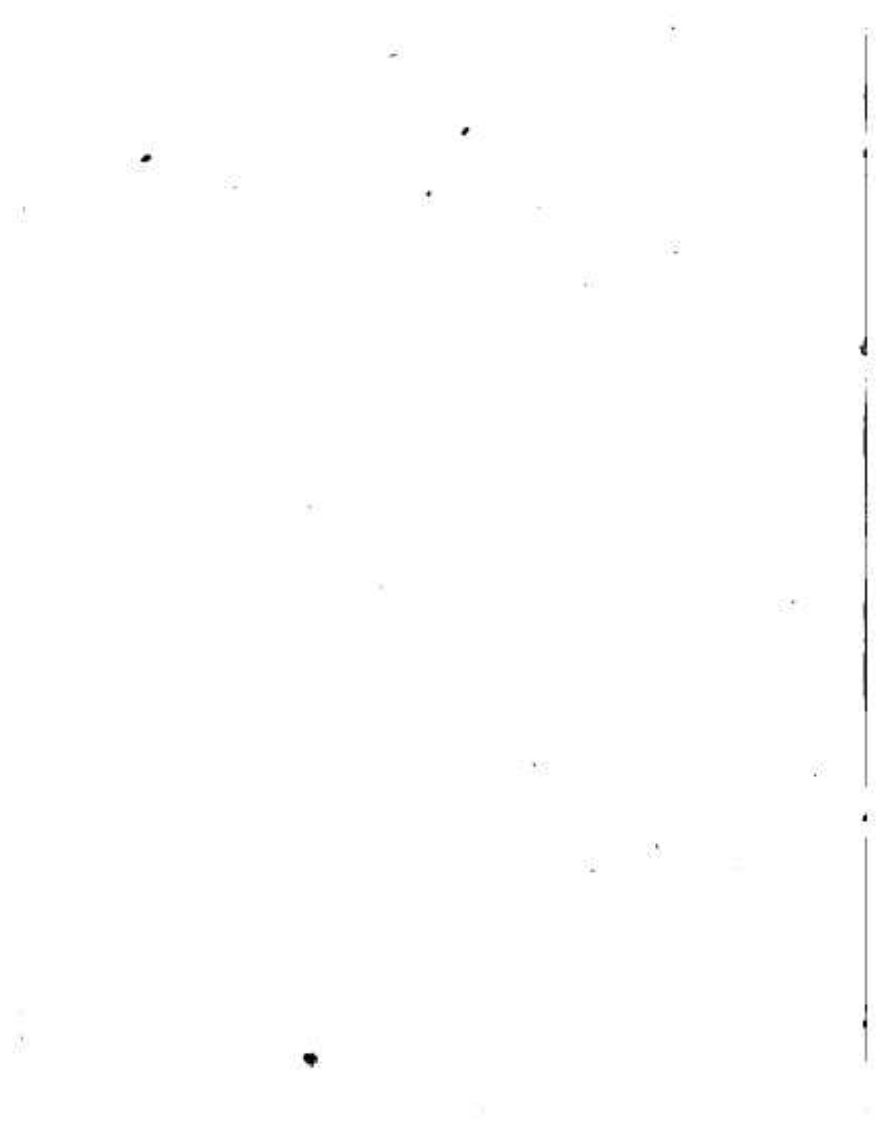
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THE favorable reception which has been given to the "First Part of Lessons about Natural Philosophy," has encouraged the writer to offer to parents and teachers of primary schools, the "Second Part," hoping that it may prove useful to those for whom it is designed.



LESSON FIRST.

WHAT IS NATURAL PHILOSOPHY ?

NATURAL PHILOSOPHY EXPLAINS THE REASONS OF THINGS, AND TELLS US ABOUT THE PROPERTIES OF BODIES.

What are *Bodies* ?

Every thing we see is a body.

You have learned about the Attraction of Cohesion—is it found in *all* bodies ?

It is ; but it is stronger in some bodies, than it is in others.

In what bodies is it the strongest ?

In *hard* bodies.

Do we call hard bodies by any other name ?

We call them *solid* bodies, or SOLIDS.

Can you mention some solid bodies ?

Wood, and stone, and iron, are solid bodies.

Are cork and sponge solid bodies ?

They are.

But they are *soft* bodies—are *soft* bodies solids?

You said *hard* bodies are solids, how then can *soft* bodies be solids?

Every body that is not *fluid* is *solid*.

What bodies are fluids?

Water, milk, and oil are called fluids.

How do you know that cork and sponge and other soft bodies are not *fluids*?

I can make a cork and sponge into any shape I please, and they will remain in that shape, but water and other fluids will not.

If I should place a solid and a fluid upon the table, how could you tell which was a *solid*?

The solid body would remain where you put it.

What would the fluid do?

It would flow on the table, or down from it on the floor.

What do you mean by a fluid?

Something that *flows*, and will not keep its place, unless it is confined in a vessel.

Do all fluids flow like water?

Not all; there are some fluids that are different from water or oil.

Then how many kinds of bodies are there?

Two.

What are their names?

Solids and *Fluids*.

Why are some solids *hard*, and other solids *soft*?

Because the attraction of cohesion is stronger in hard bodies than it is in soft bodies.

What do you mean by the attraction of cohesion?

The attraction of cohesion is the power of sticking together which God has given to little particles of bodies.

What do we call *hard* solid bodies?

We call them *dense* bodies.

What is *density*?

Hardness.

What bodies are *dense*?

Those bodies are dense whose particles are close together.