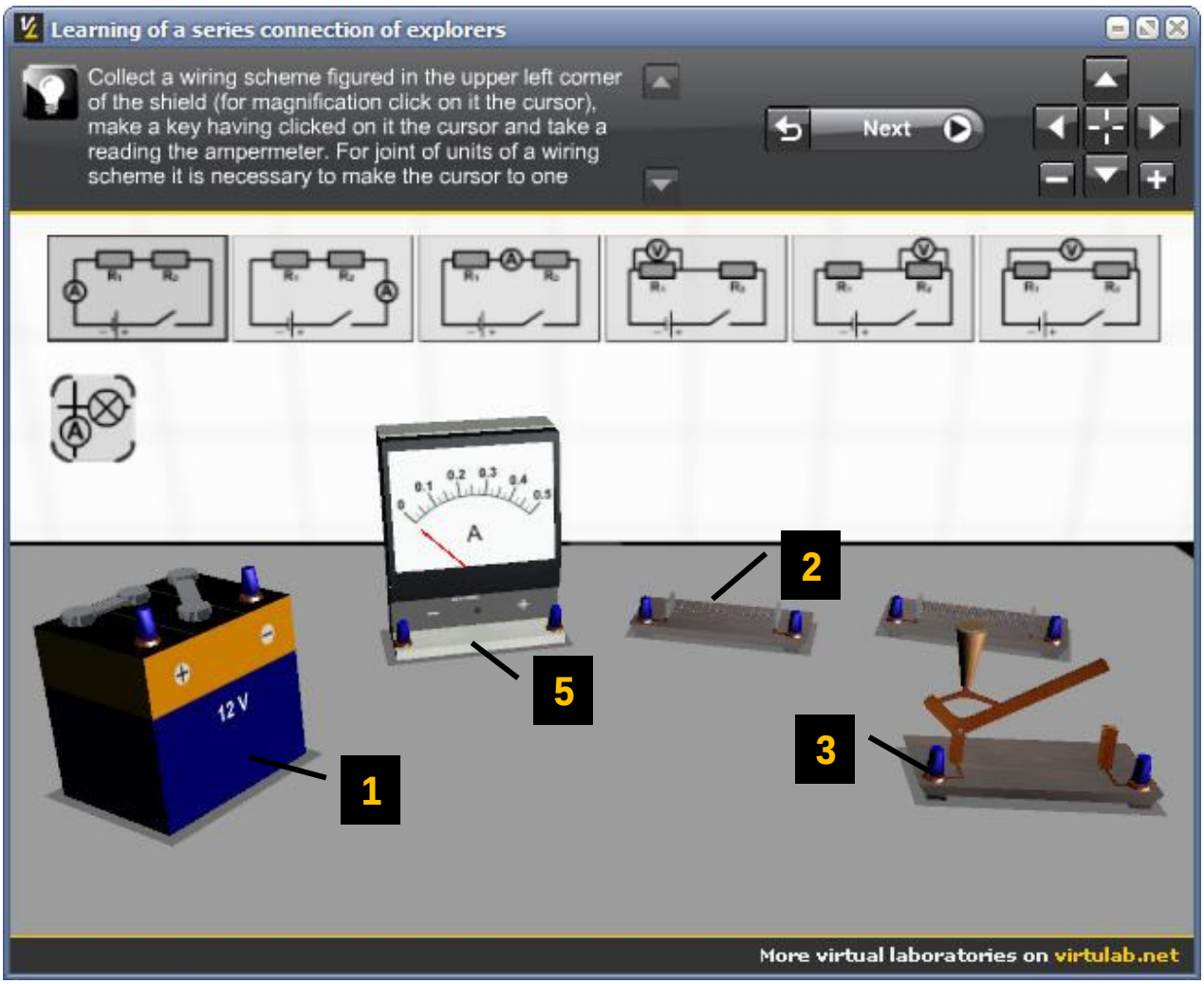
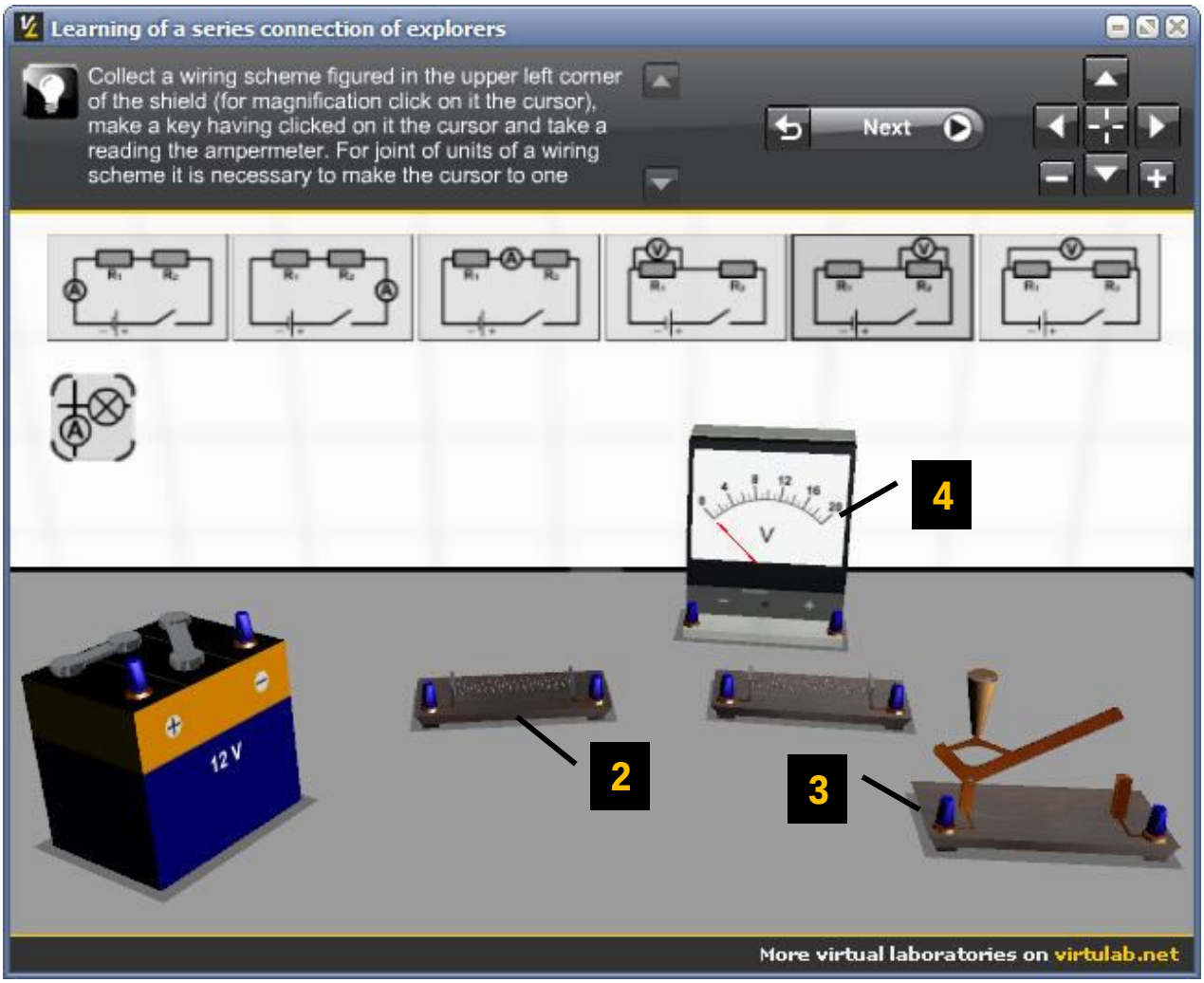
2.2 LEARNING OF A SERIES CONNECTION OF EXPLORERS

The job purpose: experimentally to research interconnections between a strength of current, power and a resistance of explorers at their series connection.

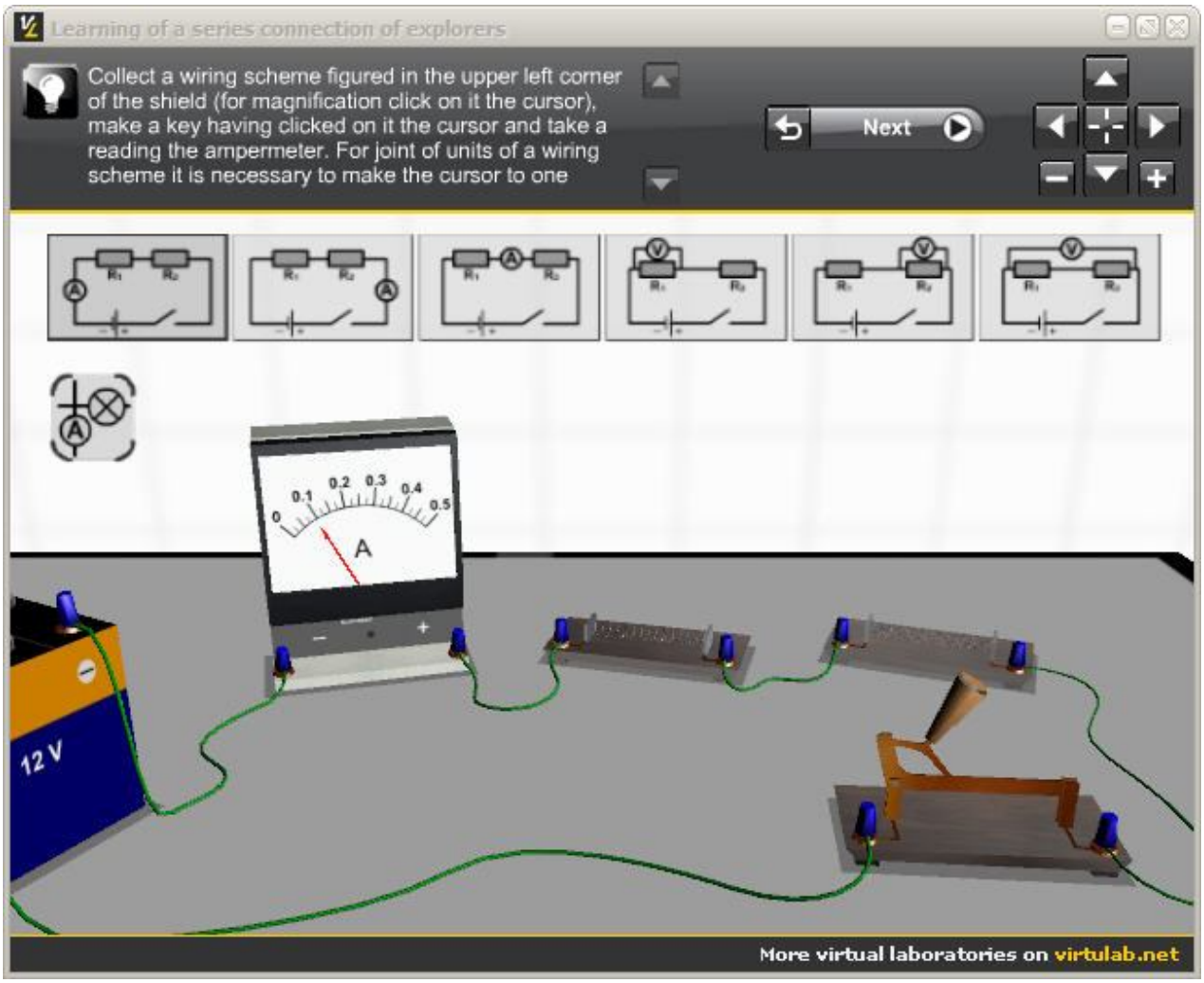
The equipment, gauges: 1) the power supply; 2) explorers of a particular resistance on a jamb; 3) a key; 4) the voltage metre; 5) the ampermeter.





JOB COURSE

1. Collect the electric circuit schema. Gauge a strength of current, having switched on the ampermeter at first between a radiant and one of explorers (I_1), then between a radiant and other explorer (I_2), and then between explorers (I_3). Write in table 1 observed data.



2. Gauge power at first on one of explorers (U_1), then on other explorer (U_2), and then on both explorers (U). Outcome write in table 1.

3. Compute a resistance of the first explorer (R_1), the second explorer (R_2), discover their total; write results in table 1.

4. Compute a resistance of two explorers R, knowing power on them and a strength of current in a chain; write a result in table 1.

5. Draw outputs.

Table 1

I_1, A	I_2, A	I_3, A	U_1, B	U_2, B	U_3, B	R_1, Ohm	R_2, Ohm	$(R_1 + R_2)$ Ohm	R, Ohm
