



unesco

Global Education
Monitoring Report

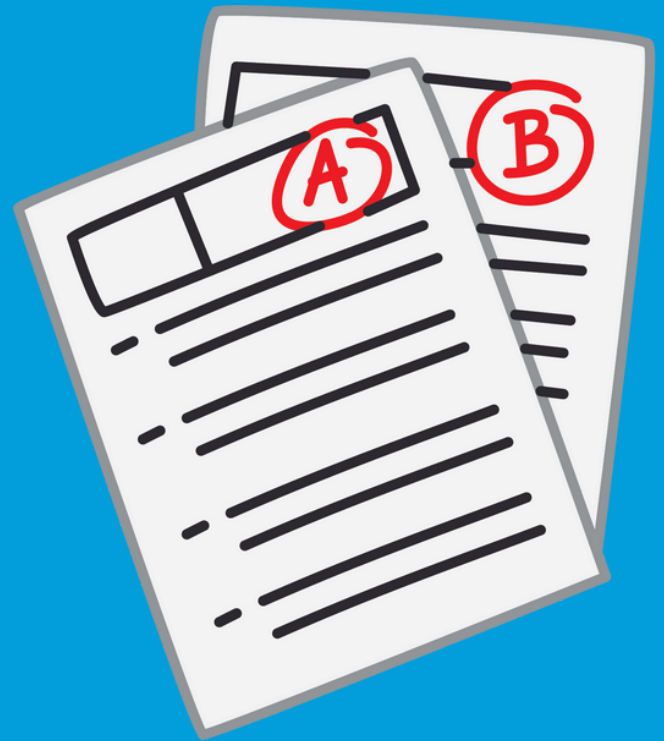
HOW TO TEACH STEM*



*Science, Technology,
Engineering, Mathematics



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Data shows that **more time** spent on STEM subjects **does not make students learn better.**

BUT THESE 8 STRATEGIES DO!



MAKE IT COMPULSORY

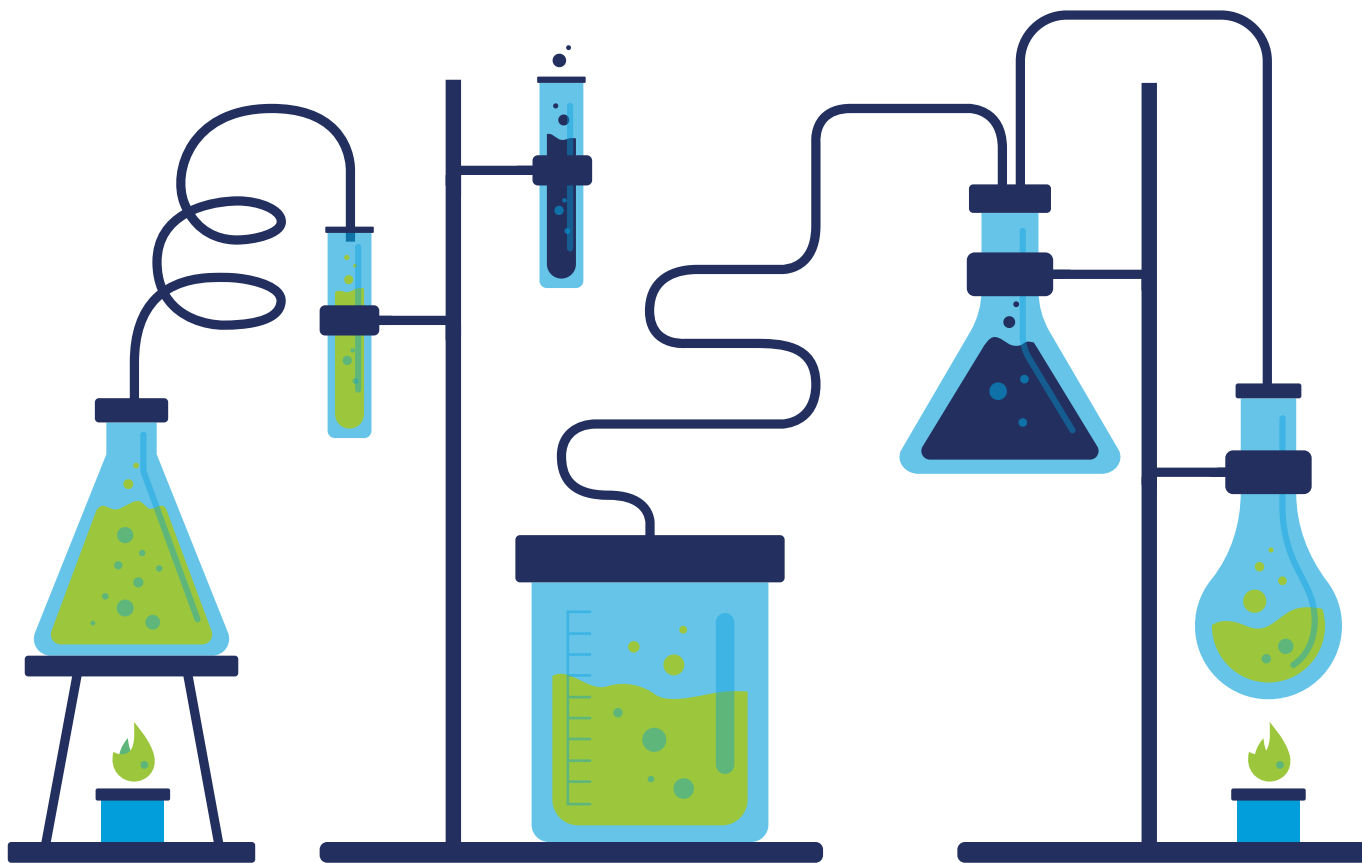


Globally, **computer science education** has been introduced as a specialist subject in many **compulsory education curricula.**



2

MAKE IT HANDS-ON

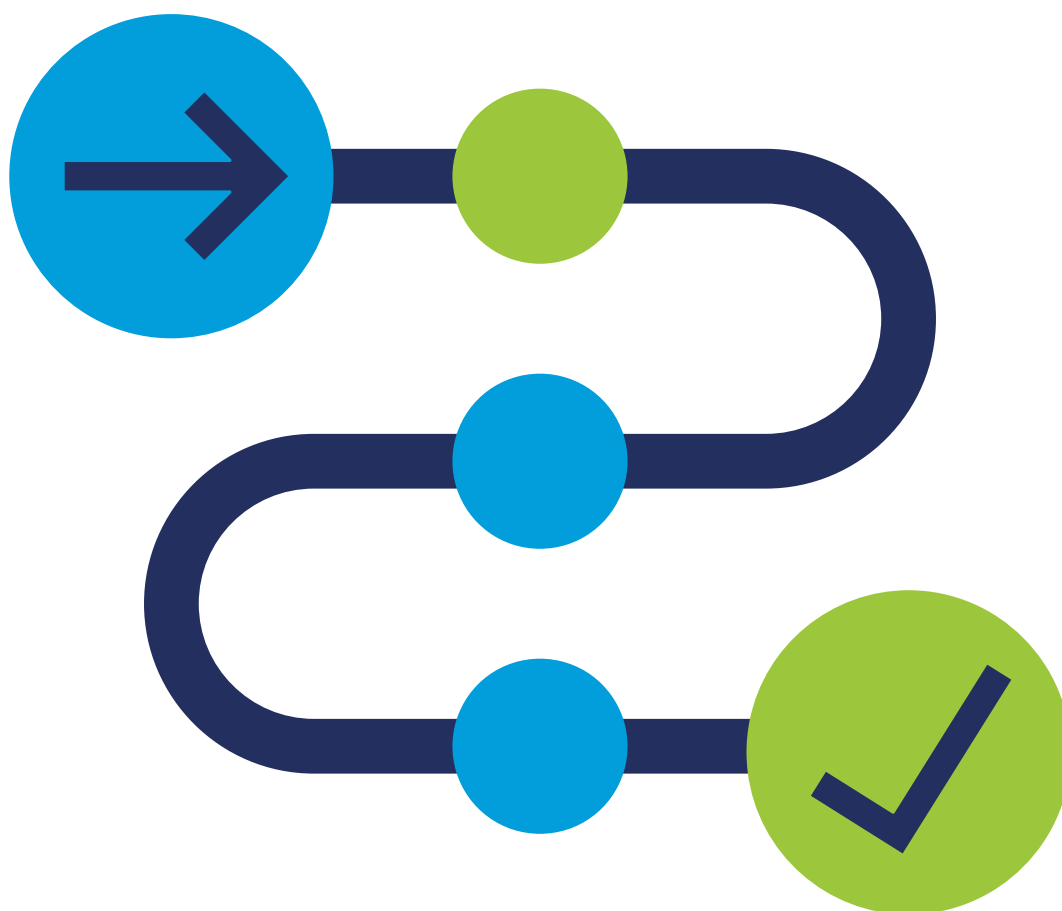


**Access to a laboratory
is associated with higher
student achievement in science.**



3

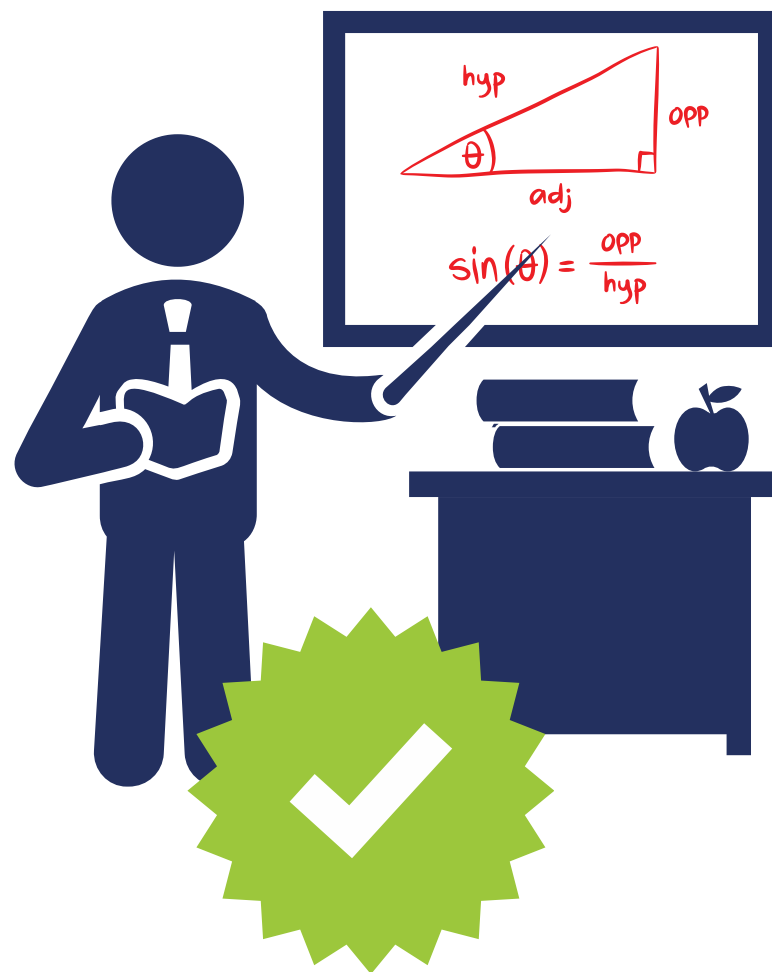
CLEAR INSTRUCTIONS



Students **perform better**
if STEM subjects are
taught clearly.



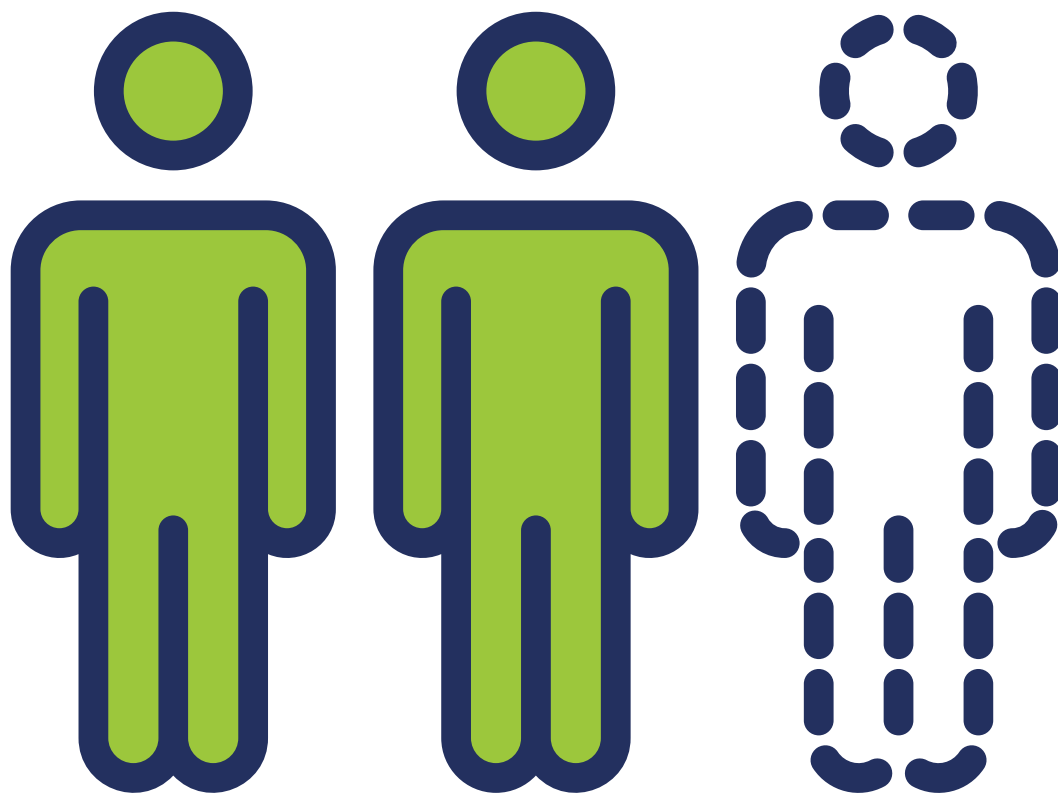
4 MAKE SURE TEACHERS ARE QUALIFIED AND WELL TRAINED



Out-of-field teaching may discourage students from pursuing STEM studies after high school.



5 ADDRESS THE LACK OF TEACHERS IN STEM



Many countries face a **shortage of STEM teachers:** few enter the profession and even fewer stay.



6

INTRODUCE CAREER COUNSELING



Career counselling and guidance can raise student STEM aspirations.



**BUT MAKE SURE THERE
IS NO GENDER BIAS**

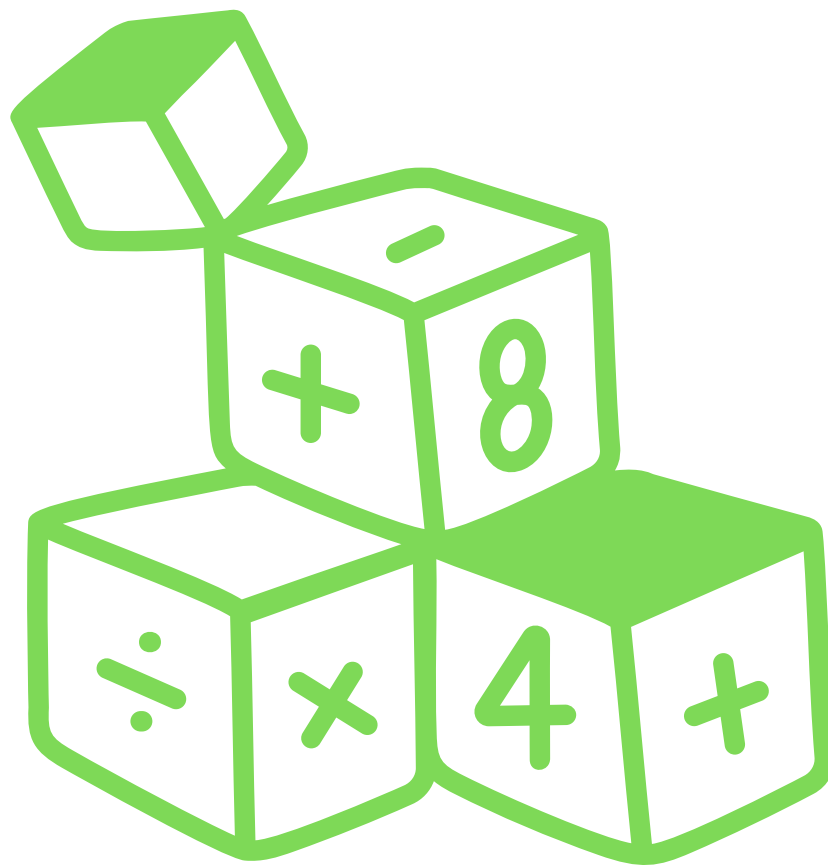


In 2022, **women** occupied **less than 25%** of science, engineering and ICT jobs worldwide.



8

TEACH STEM EARLY ON



Early STEM learning may prevent negative beliefs and stereotypes from building.