

Rider Institute Online

Earth and Space Science

Fall 2026 Wednesdays beginning Sept. 2

Dr. Todd H. Rider, thor@riderinstitute.org

Website: riderinstitute.org



This online course (for students in upper elementary through high school AP) covers a wide range of topics in Earth and Space Science. No prior knowledge is required. Supplementary readings and simple home experiments are recommended (but not required) each week—see the next page for more information.

The course is conducted via Google Meet on Wednesdays 8:00-9:00 p.m. Eastern (5:00-6:00 p.m. Pacific).

You can pay for individual blocks of 8 weeks (see below) or \$384 per household for the entire fall course (Parts I and II). To register, please pay in advance by credit card (riderinstitute.org/donate) or by check (made payable to “Rider Institute Inc.” and mailed to: **Todd Rider, 5 Green Needles Road, Littleton, MA 01460**) and also send an email (thor@riderinstitute.org). Payments are nonrefundable.

Dr. Rider has over 35 years of experience in science education and research:
riderinstitute.org/education riderinstitute.org/about

Earth Science Part I (\$192 per household for 8 weeks)

Sep. 2	Earth science overview
Sep. 9	Minerals
Sep. 16	Minerals (cont'd)
Sep. 23	Rocks
Sep. 30	Rocks (cont'd)
Oct. 7	Structure of the Earth
Oct. 14	Plate tectonics
Oct. 21	Earthquakes

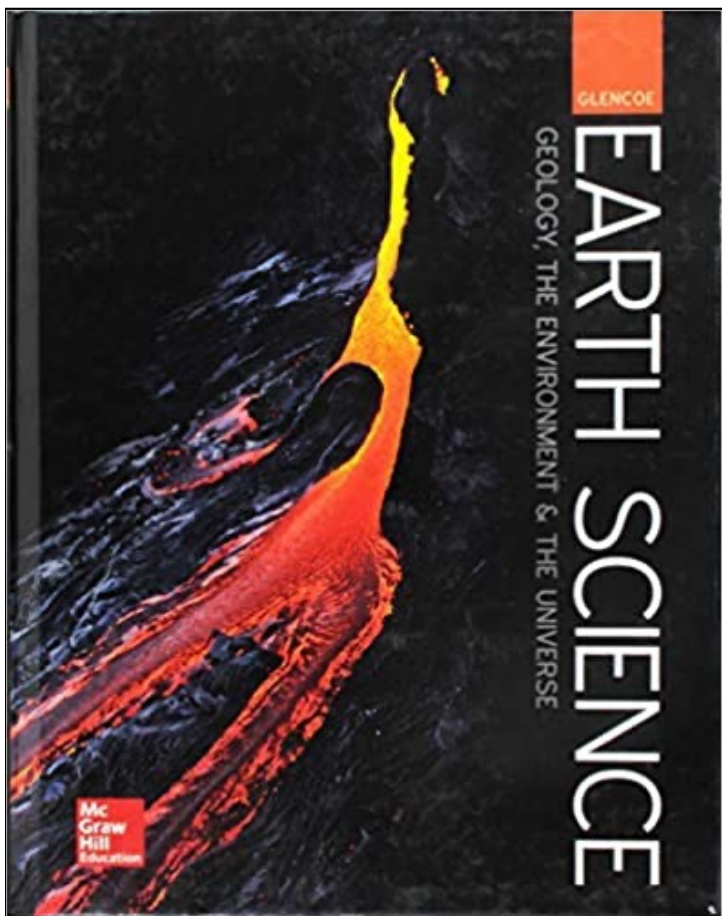
Earth Science Part II (\$192 per household for 8 weeks)

Oct. 28	Volcanic activity
Nov. 4	Crustal deformation and mountains
Nov. 11	Weathering by water
Nov. 18	Weathering by glaciers and wind
Nov. 25	Other objects in our solar system
Dec. 2	Other objects in our solar system (cont'd)
Dec. 9	Objects beyond our solar system
Dec. 16	Objects beyond our solar system (cont'd)

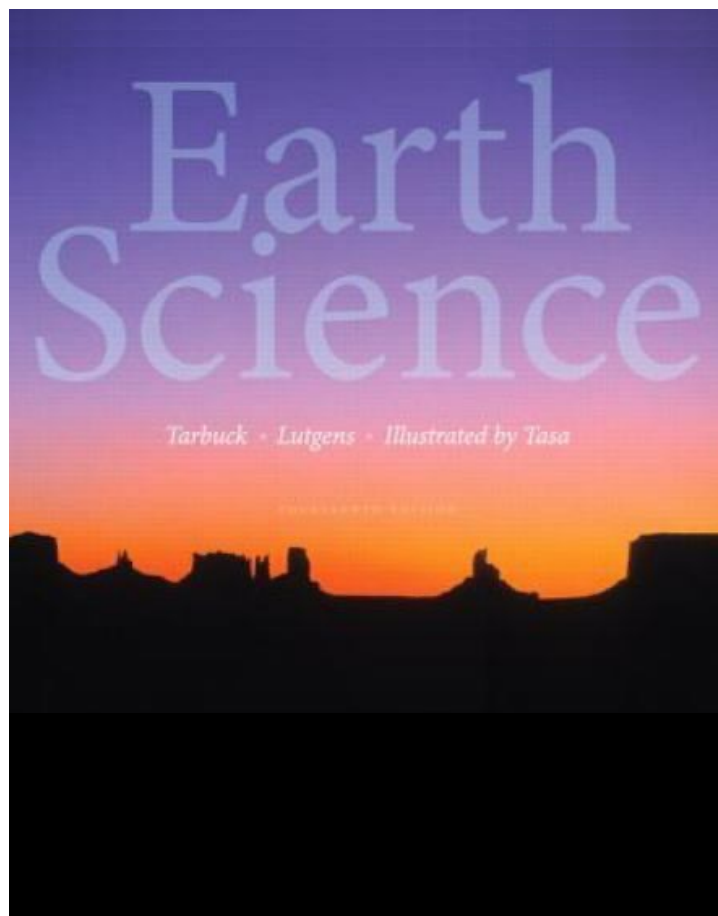
**Spring 2027
beginning Jan. 6:
More Earth Science:
paleontology,
oceanography,
atmospheric science,
weather, climate,
pollution, and ecology
(if enough students
are interested)**

**Please send me an email
(thor@riderinstitute.org)
if you are interested in
paid one-on-one tutoring
via Google Meet in any
science-related subject or
for science fair projects.**

It is recommended (though not required) that students buy a textbook for supplementary readings during each week. Students can use **either** Glencoe *Earth Science* **or** Tarbuck & Lutgens *Earth Science*.



OR



For less advanced students

For more advanced students

New textbooks are insanely expensive, but more affordable used copies are available from reputable dealers at amazon.com, abebooks.com, etc. You can also save money (without losing much scientific content) by buying an edition that is recent but not the very latest. Do not pay for online access codes (those are just an expensive gimmick) and do not rent a book (a good printed textbook that you can keep is an invaluable resource that can be useful in later courses).

Recommended (but not required) home lab activities

Each week I will suggest simple lab activities that students can do at home with adult supervision, using common household items or supplies from online dealers. I especially recommend www.homesciencetools.com, which sells science kits and individual items.

See also:

www.geod1.com

www.meteoritemarket.com

wardsci.com

www.rocksandminerals.com

www.djminerals.com

boneclones.com

teachersource.com

celestron.com

The parents or legal guardians of students assume all responsibility and liability for supervising any student lab activities and for ensuring that all applicable safety procedures and instructions are followed. The Rider Institute and Todd H. Rider assume no responsibility or liability for any lab activities.