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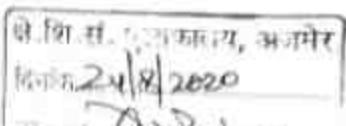
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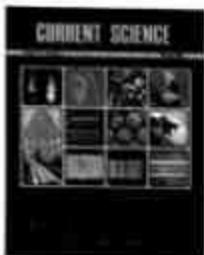
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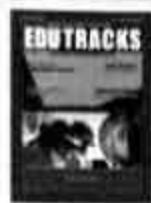
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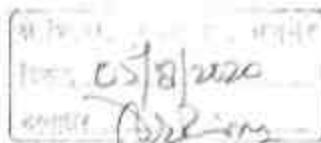
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**ON THE COVER:** Environmental forensic chemistry investigations examine the extent, duration, and sources of environmental contamination. In "An Environmental Forensic Chemistry Experiment Involving Abandoned Mine Drainage Remediation" (DOI: 10.1021/acs.jchemed.9b00765), Pamela J. Higgins discusses an experimental case study in which students determine the potential source of groundwater contamination along a series of treatment steps designed to mitigate the environmental effects of material transport from an abandoned mine drainage site. This experiment expands the breadth of experience for forensic chemistry students outside of more typical investigations of crime scenes and evidence and increases student exposure to chemical techniques not typically conducted in undergraduate forensic chemistry courses. (Acid mine drainage image used with permission from Nathaniel E. Warner.)

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- 1101 DOI: 10.1021/acs.jchemed.9b00337  
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**ON THE COVER:** Aperiodicity in crystals is not an intuitive concept, so its experimental visualization can be helpful for students to build understanding of the symmetry properties of an aperiodic crystal structure. In "Quasiperiodic Crystals: Teaching Aperiodicity of a Crystal Lattice with 3D-Printed Pentose Tiles" (DOI: 10.1021/acs.jchemed.9b00702), Sergio Rossi, Claudia Rossi, and Nicoletta Accorci describe an activity in which students assemble a continuous-fil (quasi)crystalline pattern with the support of 3D-printed Pentose tiles. Working together, students first use the kite and dart tiles to generate a periodic 2D-crystal pattern, followed by the construction of an aperiodic 2D-crystal pattern. This visual, tangible, and hands-on process allows students to grasp abstract concepts related to symmetry operations and elements of symmetry.

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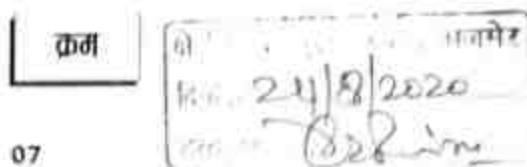
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DOI: 10.1021/acs.jchemed.9b00817

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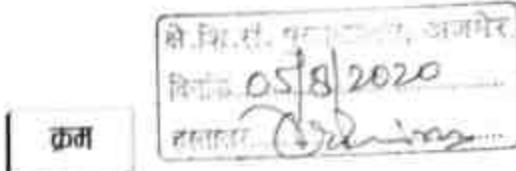
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You Must Be Joking!



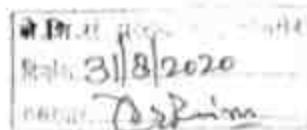
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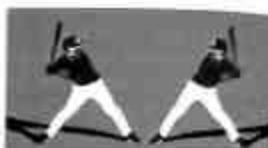
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Pythagoras's Quilt



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Decision Tree



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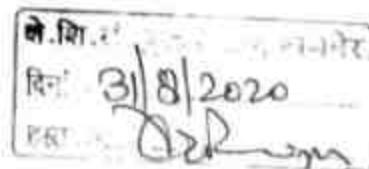
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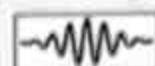


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By Sindhu Radhakrishna

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Cartoon (1830) lithographed by Henry De La Beche showing a Professor Ichthyosaurus lecturing on a human skull to a group of Jurassic reptiles. The cartoon was made as a critique of Lyell's idea of a cyclic pattern of the Earth's history.

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(1797–1875)

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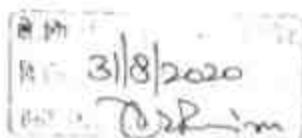
इस अंक में

<b>१. संपादकीय</b> <b>कोरोना-प्रकृति का नया संदेशवाहक</b> <b>२. प्रतिवर्षीय</b> <b>कृषकोंका राष्ट्रीय लिंग 'दिनकर'</b> <b>३. कहानी</b> <b>कौन की जनता? अपित्य शंकर एवं चौधरी।</b> <b>४. परादेश में यताङ्गः अमृता समझाना</b> <b>५. व्यापार या अव्याय? विषय कुमार</b> <b>६. भोज रेतुका अवधान</b> <b>७. डेवेंद्र चौहानीन् प्रसाद 'विष्णुविष्णु'</b> <b>८. एक ही भूमि द्वारा वाहनी</b> <b>९. आलेख</b> <b>पर्वतराम और हिंदू गवान की चिंता।</b> <b>१०. अनिन्द मिला</b> <b>११. राम: कारणा का ओजास्वी रूप।</b> <b>१२. लला कुमार दासोः</b> <b>१३. योगाहल और केंच्चूटर। चालेंदु लम्ही लाभीचरण</b> <b>१४. समकालीन संटर्प में धारावाहक की</b> <b>१५. प्रासंगिकता। विषय कुमार गुप्ता</b> <b>१६. भारत और आर्य। अधिकारक विषयाल</b> <b>१७. लघुकथा</b> <b>१८. जंगलीयन २१, सालाहिक अवकाश।</b> <b>१९. अनुग्रह का एक क्षण।</b> <b>२०. विवरण। राष्ट्रीय प्राप्तिकारी</b> <b>२१. कविता</b> <b>२२. माघे से हर शिक्षन पौछ दे। वालमीकी रामी।</b> <b>२३. मेरी यात्री में तापा विष्णु</b> <b>२४. आज के दोहे। उदय कारण 'मुमन'</b>	<b>२५. दिव याद भाई। प्रकाश गुप्ता 'साहित्य'</b> <b>२६. फैल गया विष्णुविष्णु अपने देव अस्तित्व</b> <b>२७. कोरोना का छहर। विष्णुविष्णु भ्रष्ट-प्रवर्षण</b> <b>२८. दिव दिवली। दिव देवी।</b> <b>२९. नहीं रहेंगे विषय आप तो। गोपा. उमाशंकर</b> <b>३०. न बाटी येतु। लक्ष्मण विष्णुविष्णु 'विषय'</b> <b>३१. अमृत वर्षा। दिव देव दिव 'शिव'</b> <b>३२. संदर्भण</b> <b>३३. गीहल दाढ़न के देव दिव। गुलाम विष्णु</b> <b>३४. गोरखगाया।</b> <b>३५. अधिकारीय अधिकारक। संदेश वहन।</b> <b>३६. राम छुरोले बैठ के गिरावी मंसुकूर चारियारो। देवता चौधरी।</b> <b>३७. लवित-लिवित</b> <b>३८. कालही से कैलाण तक। श्रीराम अधिकार</b> <b>३९. छंग्य</b> <b>४०. डीविटर-मूर्ति। लिंग शंकर गुप्त</b> <b>४१. ताहित्य का भारतीय परिवार्षर्य</b> <b>४२. छाप। जीतकर्ता चौधरी</b> <b>४३. पुस्तक-अंत</b> <b>४४. राम का जन्म। गुरु चंद्र</b> <b>४५. ताहित्य का विषय परिवार्षर्य</b> <b>४६. कवित इताग, बम वही। हर्षदी देवेंद्र</b> <b>४७. यात्रा-वृत्तांत</b> <b>४८. लवासा। एक मुख्य चारा। दुर्गा प्रसाद</b> <b>४९. लोक-ताहित्य</b> <b>५०. वाल-संसाध</b> <b>५१. चुपा नहीं बानो तो बेटा। विष्णु रेमा</b> <b>५२. बेजान भी छोलते हैं। सालकाला भट्टाचार्य।</b> <b>५३. दृ-दृ, ची-ची कलो शोए। अमृत संसदकी 'तुम'।</b>
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## Health & Safety

For all practical procedures described in SSR, we have attempted to ensure that:

- all recognised hazards have been identified;
- appropriate precautions are suggested;
- where possible procedures are in accordance with commonly adopted modal risk assessments;
- if a special risk assessment is likely to be necessary this is highlighted.

However errors and omissions can be made, and employers may have adopted different standards. Therefore, before any practical activity, teachers should always check their employer's assessment. Any local rules issued by their employer must be obeyed, whatever is recommended in SSR.

Unless the context dictates otherwise it is assumed that:

- practical work is conducted in a properly equipped laboratory;
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- any fume cupboard operates at least to the standard of CLEAPSS Guide G9;
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Readers requiring further guidance are referred to:

Hazardcards (CLEAPSS, 2016 and updated)

Topics in Safety, 3rd edn (ASE, 2001); updates available at [www.ase.org.uk/resources/topics-in-safety](http://www.ase.org.uk/resources/topics-in-safety)

Safeguards in the School Laboratory, 12th edn (ASE, 2020)

Preparing Risk Assessments for Chemistry Project Work in Schools & Colleges (SSERC, 2020)

SSERC hazardous chemicals database ([www.ase.org.uk/health-safety/chemistry-health-safety/hazchem/](http://www.ase.org.uk/health-safety/chemistry-health-safety/hazchem/))

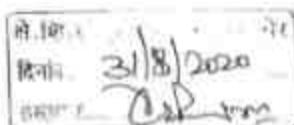
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