Summary
Thirty-four of 40 workshop participants including educators, fossil club members, presenters, and facilitators completed the post workshop survey. All but one teacher/fossil club member reported increased expertise in using fossils to teach math and science concepts; similarly, all but one teacher/fossil club member (a different individual) reported increased expertise in using 3D technology to teach math and science concepts. All respondents “agreed” or “strongly agree” that they would recommend the workshop to a friend, the workshop was worth their time, and the workshop introduced them to new perspectives and resource. On average, teachers/fossil club members gave the workshop a grade of “A.”

When asked to list the most useful things learned at the workshop, respondents most often cited information about resources and the potential of 3D printing/how to use 3D printing. The most common suggestions for future workshop topics focused on lesson plans—either ready-made or created via brainstorming during workshops—and more hands on, practical training.

Participants offered several suggestions to improve future workshops including shorter breaks, more demonstrations, and handouts. Most respondents also shared their ideas about how they might incorporate what they learned at the workshop or plans they have for follow-up activities; examples include sharing information with other teachers, seeking funds for/purchasing 3D printers, beginning to photograph club members’ fossil collections, and enriching existing outreach activities.

Respondents
An anonymous link to the electronic post-workshop survey was sent to 40 workshop participants; 34 responded (85% response rate). Fifty-six of the respondents were K12 educators, 18% were members of fossil clubs/societies, 26% presented at the workshop and 15% facilitated the workshop in some capacity.

One-third of teachers and amateurs rated their pre-workshop level of expertise using fossils to teach math and science concepts as “low” while nearly half (47%) rated their level of expertise using 3D technology to teach math and science as “very low” (see Figure 1). All but one participant rated their expertise in each of these areas following the workshop as “higher” or “much higher” (see Figure 2). The two individuals who rated their post-workshop expertise as “about the same” rated their pre-workshop levels as “neither high nor low” and “low” respectively. Everyone who began the workshop with a high level of expertise reported increases.
Workshop ratings

All respondents “agreed” or “strongly agree” that they would recommend the workshop to a friend, the workshop was worth their time, and the workshop introduced them to new perspectives and resources (see Figure 3). Fossil Club members appear to have given the workshop slightly higher ratings overall than the teachers; however, only four of eight club members answered this question so the results should be interpreted with caution (see Figures 3a and 3b). All respondents gave the workshop a grade of “B” or higher with the average being an “A” (see Figure 4).
Using fossils to teach math and science
Using 3D technology to teach math and science

Figure 2. Participants' Ratings of Post-workshop Expertise

Number of Respondents (Teachers and Amateurs only)

Using fossils to teach math and science
Using 3D technology to teach math and science

Number of Respondents

Lower  About the same  Higher  Much higher

Figure 3. Overall Workshop Ratings by Teachers and Amateurs

I would recommend the workshop to a friend.

The workshop was worth my time.

The workshop introduced me to new perspectives and resources.

The workshop provided valuable networking opportunities.

I can immediately apply what I learned at the workshop.

The workshop enhanced my instructional skills.

Time was distributed appropriately among formal presentations, tours, discussion, and

Strongly Disagree  Disagree  Neither Agree nor Disagree  Agree  Strongly Agree
The workshop enhanced my instructional skills.
I can immediately apply what I learned at the workshop.
The workshop introduced me to new perspectives and resources.
The workshop provided valuable networking opportunities.
I would recommend the workshop to a friend.

Figure 3b. Teachers

<table>
<thead>
<tr>
<th>Statement</th>
<th>Fossil Club Members</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would recommend the workshop to a friend.</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>The workshop was worth my time.</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>The workshop introduced me to new perspectives and resources.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>The workshop provided valuable networking opportunities.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>I can immediately apply what I learned at the workshop.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>The workshop enhanced my instructional skills.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Time was distributed appropriately among formal presentations, tours, discussion, and</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
Figure 4. Workshop Grades by Teachers and Fossil Club Members

Percent of Respondents (n = 18)