1. On a scale from 1-10 with ten being high, rate the value of this meeting to you. _____

For any response lower than five (5), please use the space below to explain.

Conditional 10.
If we can move past discussion into action, that would be amazing.

2. We examined student work in the context of big ideas in the life sciences. What insights did you gain from this work? Please consider teacher expectations, student learning, student abilities, and other issues important to you.

There are many ways to assess knowledge. The ability to process information and make sense of the information is important regardless of the content. It was apparent that not all students meet the expectation, but more difficult to figure out why.

I was pleasantly surprised at the high expectations of the high school instructors at our table. I feel confident that students are exposed to processes and ideas.

Big ideas may be identified through national and state standards, but issues of understanding and assessment as students move from high school to college are a concern.

We need a variety of assessments to determine student understanding. High expectations of teachers will steer student learning.

It’s important to come to some level of consensus on identifying the big ideas.

We’re on the same page, similar problems, but different level of complexity. Students are producing at higher standards from looking at samples (considering the samples that were presented).

Commonality across grade level as far as content being taught. High & low end extremes are easily identified.

It was most interesting to see the themes and issues that transcend grade levels.

I learned that there is a broad range of expectations, abilities, and learning that occur everyday. Unifying the concepts would provide a valuable framework.

Good news: students are able to step up & do impressive work at all grade levels. Challenge: the unbelievably broad rang of skills & knowledge that enter the classroom – how do you address the needs of all the students?

I was encouraged to see that most of us were on the same page more or less when it comes to the “big ideas.”

Themes are important – processes are important but shouldn’t be stressed at the expense of content.

Ideas how to assess.

There was considerable consensus on many (most) of the big ideas across the grade levels represented at our table.
Importance of grade appropriate approaches to teaching biological materials. Also importance of multiple exposures.

The insights I gained include the high expectations that teachers have on many “big issues” and the work that teachers & students are doing together.

A particular point was the drop-off in writing skills from middle school to high school. Communication, oral and written, was a major concern to everyone.

We need to focus on what a big idea means.

I learned that teacher expectations across grades have high expectations, and design lessons that provide students with the opportunity to demonstrate not just competence but excellence

Fairly love level work/projects Teachers seem to want to have high expectations but administrators/parents force them to teach to the “middle” at best

The quandary of whether our expectations are high enough – are our students capable of more?

Students demonstrated understanding of concepts.

Concepts were similar across the board. Expectations of teachers that come to this are high.

Most generally agree & big ideas work across all levels.

WOW – big problem with ideas vs concepts all topics seemed important and interconnected.

It was interesting to hear teacher expectations across the grades & how our expectations seem to be the same – high expectations, but students don’t want to have to think for themselves & many don’t achieve to our expectations.

My students were doing as well as other high school students.

What the public schools do is very good, of course these are the best & most involved teachers.

Students need to develop greater critical thinking skills which can be used to strengthen & assess student learning.

3. If there were another high school to higher education summit, what kind of activities for faculty would lead to improved science learning for students? Please focus your comments on student learning.

As important as we felt numbers were, it would be interesting to see what kinds of assessments were brought.

It is clear from the discussion that we need to focus on methods of assessment.

Identification of outcomes that are essential and how we can determine (assess) student understanding.

I liked visiting with colleagues to share ideas.

Develop lessons and assessments that target the big ideas – maybe end-of-course exams that measure understanding of a few essential big ideas.

Explore the concepts & processes that are of greatest significance.

Continue to share work.

I think we have gotten a lot of mileage out of sharing individual school work – what is the next step? Comparison of assessments? Is there data on learning we can use?
Clear guidance on inquiry. What it is, and how do we teach our students to question so that their questions guide their learning.

How to come up with creative & practical ideas for how to shake up students’ ideas about what they know, to be able [to] open their minds more easily to newer ideas/concepts.

I would like to focus on inquiry – what is it? How is it modeled?

Analysis of teaching practices by profs – how can we improve instruction to improve student learning?

Assessment of student learning.
Communication skills (writing).

For a “big idea,” identify key skills/concepts are each grade level, ask for sample activities & assessment, work on how we link between level.

How valid is assessment?
What kind of assessment if best?
Should it be as formalized as it is now?

A compendium of active learning activities?

How to take the big ideas and design lessons/activities incorporate inquiry

Develop actual “exercises” to support the BIG IDEAS in scientific inquiry & quantification skills

Focus on one big idea and all participants bring examples on that one idea.

Transforming students into observers and enquirers.

Sharing of ideas on activities done w/ our classes.

Data on student learning of big ideas.

Actual activities.

Review of syllabus – it’s nice to know what is expected at each level. Could include a review of standards.

4. This two-part question focuses on future science summit meetings:

   a) For you, what is the key issue concerning coordination of the teaching and learning of the life sciences from high school to college?

Retention of information and the ability to apply skills they have to a new setting.

One of the key issues discussed in this meeting (at our table) was the importance of communication in science. We also discussed the importance of math proficiency for understanding life science.

Assuring preparation of students that reduces the need for medication and failure.

We need an idea map to help steer us!

Communication among stakeholders – this summit is a great example/model.

Getting useful direction for design & delivery of the courses.

The amount of time between high school biology & freshman 1010 Biology
How do we affect some change with some of the things we learned today?

Collaboration and time. I feel to be done well collaboration should occur and be ongoing.

Is there coordination? How to build relationships b/t hs & college level instructors to be able to build on ideas.

Communications – I feel that meetings such as these are very important for effective coordination.

We don’t know what each other is doing.

What are the big ideas we are teaching?

Communication – frequent & honest, especially face-to-face

For me, the key issue is just that: continuing to coordinate, communicate, and collaborate.

The level of rigor, subject matter expectations at each level.

What depth of understanding of big ideas do students need to have from one grade level to the next? Are the state standards realistic for 11th grade?

JH/HS students lack skills & and the poor teachers at our table cannot get students to do homework!

Knowing what is being taught and expectations.

To motivate students by providing real life participation in science.

Being able to communicate across all levels.

Consistent treatment of big ideas, know what is coming & what is going -- data

What do students need to be able to do to be successful in college – life? Share ideas/lessons/activity on bio topics – cells, heredity, evol., etc.

Trying to lower our expectations for students who won’t be going to college causes us to “teach to the middle,” and this isn’t fair to our college bound students – but if we teach to them, the others will be left behind.

Students have the need and foundation to succeed.

Student retention of information.

b) How can future articulation meetings best address the issue you identified?

Maybe we could all look at one process and bring samples that show how this looked at the different levels.

I believe we need to bring math and English instructors into the conversation. We need to encourage the involvement of all disciplines into the teaching of life science.

Select specific enduring understandings and explore means of assessing understanding, not just mastery of facts.

Some of the summit participants could present a session at the state science teacher conference.

Get participation from more teachers.

Convince school districts to hire enough staff to teach a senior level science capstone class by having them come to these meetings.

Now let’s connect to PAWS etc. to see how those things in this articulation.
Continue discussions after the meeting. Try to develop a mode of action or plan.

Concrete steps to put together ppl. & the BIG IDEAS to ensure continuity...

Maybe fall & spring meetings. Keep the discussions going with on-line threaded discussions.

Let’s get into each other’s space & find out! [what’s going on at different levels]

Keep identifying what we are doing at each level.

Don’t know – seems to work quite well now.

The “medium is the message” – simple communications if very valuable.

More conversations – add in some “real” students??

The discussions are wonderful.

Holding them does the job.

Look at the data.

What do colleges expect h.s. grads to know and be able to do?

Include administrators, who often limit us as far as high expectations for students.

Teaching strategies and techniques.

5. Anything else we need to know? (please continue on the back, if you need space)

Great session!

Great experience!!

Bring 10 beach balls!

Need t-shirts.

It would be fun if this event produced some kind of publication that can be shared with all biology teachers.

The day flew by – thanks for coordinating a useful, well organized & fun day that didn’t bog down.

Thanks – this was very productive.

Keep up the good work!

One semi-frustrating thing at our table group (for me) was staying on task.

Good job! I liked the relatively long periods of time for extended discussion!

Name tags should have location person is from & last name.

The morning session was wonderful & informative – the afternoon session I didn’t find quite as enlightening. I think people came in with lots of different understandings of what “big ideas” we were looking for which led to a lot of confusion.

I think going from 10-3:30 would work just as well.
The sharing of ideas & strategies are more beneficial than arguing over topics & “big ideas.”