

Collaborative Document for the SCIENCE COMMUNITY

To help you find what you're looking for

Meeting agenda & notes	Article on the APC site with the video timestamps
October 19 at 15:45-16:45	The Article
October 20 at 11:45-13:00	
December 7 at 15:45 -16:45	The Article
December 8 at 11:45-13:00	
April 19	The Article
Mai 25	

[Archives](#) des années antérieures

[Tutorial](#) on how to add the community meeting schedule to your calendar (in French)

[Library of resources](#) shared during the meetings

[La page de la communauté science et technologie](#) (in french)

[Access the Après-cour Zoom room](#)

[Rewatch an Anglophone community meeting](#)

Meeting 1

October 19 at 15:45-16:45

- [Attendance](#) (cliquez ce lien pour ajouter votre présence au tableau)
- [Library of resources](#) shared during the meetings
- [Article](#) on the APC site with the video timestamps

Meeting Agenda (Notes)

Welcome back to the 21-22 APC. These are the guiding questions for this week's science apres-cours. This APC is intended for all levels of science. This is a safe space to share, discuss and gather information related to our teaching practices.

Presentation of partners:

- [BIM](#) → Barbara Choquette (choquetteb@grics.ca)
- [RÉCIT AGE](#) → Giovanna (centre support) & Emilie (creation of digital resources for learning through Project RISE)
- [Complementary Service](#) → Karine Jacques
- Equipe-choc → Micheline & Julie ([Ageresource.ca website](#))

Topics of discussion

1- What specific topic do your students have trouble with?

For example, naming ionic compounds, balancing equations, isolating a variable

- Literacy
- Supporting individualized students
 - Helen (RSB) mentions that her board has set up individualized Science courses on Moodle following the SOFAD books & with extra materials
 - Sonya talked about creating collaborative curriculum maps for each course code
- Basic math skills (ex. for students who have been out of school for a long time & also for those who HAVE been in school)
- Time for labs
 - Micheline is working on a video "lab library" for students to access & do accompanying exercises
 - Richard shared these resources from the French Science community:
[Liens de vidéos concernant les manipulations en laboratoires](#) & [Vidéos de laboratoires](#)

2-What specific subject do your students always do well on?

- Sarah has developed a bank of resources for her students on Edmodo and that helps them find supplementary material for topics they find challenging
 - Helen echoes this. Important to have things very organized, so students can easily find what they need.
 - Micheline mentions having a student AND a teacher version of the curriculum maps
 - Sonya talked about the **RASE model** of online course design (Resources, Activities, Support, & Evaluation). See slide 8 of the presentation on [PD a la carte](#) or read this [article](#) or watch this [video](#)

3-As a teacher, which topics are you the least comfortable with?

For example, technical drawing, fractions, exit cards, assessment of competencies, student-focused learning, online engagement, mindful selections of teaching examples, correction rubrics

- ...

4- How do you support missing prior knowledge? What is the most common missing prior knowledge? How effective is this support?

- Helen explained that students all want 1-on-1 support. Students are still tired from COVID and want to be spoon-fed as much as possible, not interacting as much as before.
- Kathleen suggests giving students a **review course** before they jump into the actual course code (especially during COVID-times when parts of the curriculum have been cut).
 - Sonya mentioned that the Ministry has added refresher courses for Math, but they're 0 credit codes (1000-0, 2000-0, 3000-0, 4000-0)
- Andy mentioned that high school sec 2 students skipped geometry, and now it needs to be filled in sec 3. Students also don't have great study habits & organization skills. Bigger gaps for students who were already struggling before COVID.
- Julie brought up that some gaps (ex. literacy) are cross-curricular gaps and will need more than a subject-specific solution and more of collaborative approach across a centre.
 - Micheline talked about Math & Science exams moving more towards "define & explain" so will require more language skills

5- Do you have a favorite reference that you use in your teaching?

For example, visual learning for teachers, introduction to physics textbook (CEGEP level)

- Emilie shared an interactive textbook for [Biology 5070](#) that she created using CK-12 resources
- Sonya shared a [nomenclature flow chart](#)
- Micheline shared a [pre-lab measurements](#) doc

Group Activity: Student evaluation criteria checklist

- Micheline mentioned that lots of students aren't aware of what they're evaluated on. Should share with students from the beginning → [Student Rubrics](#)

Meeting 2

October 20 at 11:45-13:00

- [Attendance](#) (cliquez ce lien pour ajouter votre présence au tableau)
- [Library of resources](#) shared during the meetings
- [Article](#) on the APC site with the video timestamps

Meeting Agenda (Notes)

Welcome back to the 21-22 APC. These are the guiding questions for this week's science apres-cours. This APC is intended for all levels of science. This is a safe space to share, discuss and gather information related to our teaching practices.

The aim is to offer one APC per month (alternating between Math and Sciences)

Please send feedback to BIM (safe space) sharing ideas about evaluations.

Put in a request to RÉCIT if you need them to accompany you.

Karine/Avi new mandate to help implement digital resources for Special Needs/differentiation).

Presentation of partners:

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- [Complementary Service](#) → Karine Jacques
- Equipe-choc → Micheline & Julie ([Ageresource.ca website](#))

Topics of discussion

1- What specific topic do your students have trouble with?

For example, naming ionic compounds, balancing equations, isolating a variable

- Isolating a variable
- **Susan:** Technical drawing; scale factor; multiview (2D, 3D) help with digital tools would be welcome
- **Jessica:** never have anything put together for me; making my own resources; no lab space. Struggles are mostly linked to prior knowledge in general. SOFAD books in general are not literacy-friendly. Has tried [simulations](#) but not super user friendly.
- **Helen:** teacher-led courses are taking up lab space and individuals are left with the leftovers. Did very short videos of the gestures (exaggerated) necessary for the labs (how to measure, how to handle the material, etc.)

- **WQSB:** do not all have labs to work in; managing lab evaluation at student's desk.

RESPONSES:

- Link between Math Sec. III and Science Sec. III should be reinforced.
- There will be a Lab Library available soon (short videos done by teachers in order to help with labs across the board).
- Emilie could make a list of the needs for online resources to help teachers with lab work.

2-What specific subject do your students always do well on?

- **Susan:** they love building things; they practiced technical drawing elements in the context of building a desk organizer. Other items are on the agenda for the next few classes. Anything that has to do with building/hands on is

3-As a teacher, which topics are you the least comfortable with?

For example, technical drawing, fractions, exit cards, assessment of competencies, student-focused learning, online engagement, mindful selections of teaching examples, correction rubrics

- **Helen:** fractions are always a challenge; motion is somewhat intimidating to me;

RESPONSE:

- Possibly bring in experts to help with some more complex concepts
- Some items that existed way back when do not seem to be used anymore, so some students really start from nothing.
- Andy can and will possibly help with putting together units/modules on building simple machines and workshop use/security.
- LEARN has several interesting hands-on/contextualized tools to help as well.

4- How do you support missing prior knowledge? What is the most common missing prior knowledge? How effective is this support?

- **Jessica:** tried recording old material so that students could go back to the videos to review the material that they were struggling with. If anyone needs them, she is willing to share them.
- **Helen:** one technique that could be developed/supported is the in-class quiz (easy) where students are much engaged and even helping each other.

RESPONSE:

- Our clientele often come to us with gaps in their prior knowledge and there is not much time to allot to bridging those gaps.
- We can put Jessica's list of videos available on the AGEResource website.
- Put together a collection/library of easy quizzes available on the website (could be done on a daily basis for formative evaluation, discussions, team challenges, etc.) so that they can troubleshoot
- **Emilie:** starting up chat groups so that students troubleshoot for/with on another)

5- Do you have a favorite reference that you use in your teaching?

For example, visual learning for teachers, introduction to physics textbook (CEGEP level)

- <https://ca.ixl.com/>
- **Jessica:** found kits to help with building simple machinery. (Engino simple machine kit, available at [Amazon](#) ~\$150)

Group Activity: Student evaluation criteria checklist

- [Student Rubrics](#)

EXAM for 4060 (versions B & C) are almost ready. They are currently being validated for copyrights.

Interested in validating, elaborating Biology exam(s), please send us a word.

Meeting 3

December 7 at 15:45 -16:45

- [Attendance](#) (cliquez ce lien pour ajouter votre présence au tableau)
- [Library of resources](#) shared during the meetings
- [Article](#) on the APC site with the video timestamps

Meeting Agenda (Notes)

1- News from partners:

- [BIM](#) → Barbara Choquette (choquetteb@grics.ca)
 - New versions coming for 4059 & 4060 in French that will then be translated in English.
- [RÉCIT AGE](#) → Giovanna (centre support) & Emilie (creation of digital resources for learning through Project RISE)
 - Emilie has made a few editable interactive textbooks using CK-12 for [Biology 5070 on Applied Genetics](#) & [Biology 5071 on Reproduction & Development](#). Feel free to add them to your library and customize them to fit your needs!
- [Complementary Service](#) → Karine Jacques
- Assistive Technology Avi Spector
- Equipe-choc → Micheline ([Ageresource.ca website](#))
 - A science Progressions of Learning coming in the future
 - Congrats to Mr. Felix Maltais, responsable de programme d'étude des sciences à la FGA.
 - Do our students require cheat sheets?
 - Sarah would prefer a better formula sheet. Susan also doesn't think a cheat sheet is needed (more about understanding concepts). Jessica & Latif agree.

2- [New PHET simulations](#)

- Micheline has prepared a doc with a list of simulations & the course codes they match with

3-Talk about Guy Mathieu's pretest 4060 and its [answer key](#)

4-[Legibility of documents](#) (Avi Spector, RÉCIT)

Meeting 4

December 8 at 11:45-13:00

- [Attendance](#) (cliquez ce lien pour ajouter votre présence au tableau)
- [Library of resources](#) shared during the meetings
- [Article](#) on the APC site with the video timestamps

Meeting Agenda (Notes)

1- News from partners:

- [BIM](#) → Barbara Choquette (choquetteb@grics.ca)
 - 2 new exams 4059 & 4060 in French that will be translated into English
 - BIM Feedback questionnaire: <https://bimenligne.qc.ca/en/fga/retroaction/nouveau>
 - No Bio exam prototype published by the Ministry yet. BIM will publish other versions after that has been published.
 - Micheline added that there is a new Science rep at the Ministry! There hasn't been one for a little while, so hopefully that will speed up the process.
- [RÉCIT AGE](#) → Giovanna (centre support) & Emilie (creation of digital resources for learning through Project RISE)
 - Emilie has made a few editable interactive textbooks using CK-12 for [Biology 5070 on Applied Genetics](#) & [Biology 5071 on Reproduction & Development](#). Feel free to add them to your library and customize them to fit your needs! Emilie added them to the Science Padlet.
- [Complementary Service](#) → Karine Jacques
- Assistive technology - Avi Spector
- Equipe-choc → Micheline ([Ageresource.ca website](#))
 - Discussion on use of cheat sheets in science (conversation originated from the French sector).
 - Carla was initially surprised there wasn't a cheat sheet for science but also wouldn't mind better formula sheets.
 - Michelle says that Bio is a different story because the students should know the information.
 - Micheline adds that having a cheat sheet might mean that the exams need to be adjusted (less essential knowledge questions). Open book exams can be tricky.
 - Helen says memory aids are great for really good students and often cause more problems for middle or struggling students.
 - Discussion about explicitly teaching study strategies (synthesizing the most important concepts from each chapter, making concept maps, making flashcards)

2- [New PHET simulations](#)

- More science (& math) simulations from CK-12: <https://interactives.ck12.org/plix/biology/>

3-Talk about Guy Mathieu's pretest 4060 and its [answer key](#)

4-Legibility of documents (Avi Spector, RÉCIT)

Meeting 5

April 19, 2022, 11:45-13:00 & 15:45-16:45

- [Attendance](#) (cliquez ce lien pour ajouter votre présence au tableau)
- [Library of resources](#) shared during the meetings
- [Article](#) on the APC site with the video timestamps

Meeting Agenda (Notes)

- News from BIM- TSG-4059 VC is available.
- Reminder! If you want to give exams feedback, view what exams are available, or be updated on recent exam changes, then check out BIM's website:
<https://bimenligne.gc.ca/en/fga>
- Update on the Bio-5070/5071 exams
- Update on the laboratory project
- Students' areas of struggles

New resources from PHET:

- Biology: <https://phet.colorado.edu/en/simulations/gene-expression-essentials>
- Physics: <https://phet.colorado.edu/en/simulations/geometric-optics>
- Chemistry:
<https://phet.colorado.edu/en/simulations/filter?subjects=chemistry&type=html,prototype>
- Earth science:
<https://phet.colorado.edu/en/simulations/filter?subjects=earth-science&type=html,prototype>

Ted's talk:

- Video collection of science topics: <https://ed.ted.com/search?q=science>
- Video collection for Biology: <https://ed.ted.com/search?q=Biology>
- Video collection for chemistry: <https://ed.ted.com/search?q=chemistry>
- Video collections for physics: <https://ed.ted.com/search?q=physics>

Varias:

Next meeting

May 25, 2022

11:45-13:00

3:45-4:45