Share Observations and Ideas about Teaching STEM in COVID Times Using Innovators’ Compass Online

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Challenges we’re facing

- Teaching STEM (semi)-remotely
- SEL & staff/parent collaboration to make that successful
A STEM-inspired tool

An MIT & IDEO alumna found that 5 questions drive many practices from STEM to SEL, and wondered “What if we made it easy to ask these more?”
1. Who’s involved?
2. What’s happening? Why?
3. What matters most?
4. What ways are there?
5. What’s a step to try?
Scientific Method, Design Thinking, Restorative Justice, and A LOT more…

Lean/Agile software development methods

Tinkering & Improvising

Subconscious & “Sudden genius”
Focus on BREAKTHROUGHS, UNSTICKING

Engaging early and throughout

Have a timewatcher?

Bring food?

Use Valeria's wordle app

Offer up the app as an alternative for lab-sid who want to try

2nd set of slides at end so we have option to use the app for district?

How everyone join a google classroom?

* people may not have computers
* people may not have the app

WEAR COMPASS T-SHIRTS under button-down shirts or cardigans that we can open up!

Group them by common stuck

Email each table after 1 week to follow up

digital sign-in to make group easier to track

Table #s or THEY name their table

Edna will pull together all takeaways materials to post on Classroom, link to compasses and innovator-compass.org

Ela to finalize who does what, put in place for their examples, instructions for compass on slides (show this compass!). Maybe still more clear 'compass' labels for sections, make the 10-tools optional. Read the 'same' blocks aloud again and make them clearer.

Elia: Form, put in as many blocks as you want; then select categories that apply (or add a category) or not!

Valeria & Mitch will create the google form (links for classroom in form) include the stuck level in the form. *Choose a problem and a share partner

Mitch will create the google form (links for classroom in form) include the stuck level in the form.

Form: put in as many blocks as you want; then select categories that apply (or add a category) or not!

CATEGORY: personal, family/community, school level (curriculum, culture) with /for an individual

SET UP ACTION PLAN:

A way to create and build on ideas?
Some stories

1. STEAM projects
2. Staff collaboration to design online learning
3. SEL support of current events
4. Parent Collaboration
To identify, develop, iterate, communicate

STEAM Projects
Topic or question

**SCIENTIFIC METHOD:**

1. **ASK A QUESTION**
2. **RESEARCH**
3. **HYPOTHESIZE**
4. **EXPERIMENT**
5. **ANALYZE RESULTS**
6. **DRAW CONCLUSIONS**
7. **SHARE RESULTS**
Individual exploration of topics

HOW MIGHT WE:
Create peace, justice & strong institutions

#innovatorscompass @elabenur
#globalgoals

PEOPLE

PRINCIPLES

OBSERVATIONS

IDEAS

EXPERIMENTS
Develop and iterate observations, principles, ideas, and experiments.
Communicate

Before I ascended I had to prepare. It felt weird preparing for this trip because I have never done it before, so I asked my friend Lila for some advice.

What should I do? It will be fun!
Guidelines

- Students will read and create visual notes about the Earth, Moon, and Sun.
- Students will work at their own pace but slides will be checked at various checkpoints.
- Students will answer all guiding questions on each slide.
- Student will use visuals to convey central ideas and supporting evidence. Notes are to be well structured, clearly communicating an understanding of vocabulary and concepts related to slide topic. Once visual is completed, students will upload image to appropriate slide.
- At the beginning and end of the project, Students will complete a reflection using the INNOVATORS COMPASS to evaluate what they have learned.

Resources, Rubric, & Notes:
- Earth, Moon, & Sun Summary Notes
- Pearson ebook
- Solar System: Sun, Moon, and Earth
- NASA
- Rubric
Collaborating to create online learning with other STAFF
**Team Meetings**

# REMOTE LEARNING MEETING

- **Safety (student/faculty)**
- **Provide Excellence**
- **Be available to students**
- **Keep students accountable**
- **Be understanding of the realities students are living in their homes**
- **Don't overwhelm teachers with new platforms to have to learn.**

**PRINCIPLES**

**STUDENTS**

**PARENTS**

**TEACHERS**

**ADMIN**

- **Need to stay home for 2 weeks/possibly more**
- **Students have iPads**
- **No universal platform for all grades or all subjects**

**IDEAS**

- **Core classes AM**
- **Special Areas Afternoon (PM)**
- **Set schedule/No rotating days/concerning for parents for students**
- **Zoom sessions- mandatory**
- **5th grade integrated unit**

**EXPERIMENTS**

- **GEOCITY PROJECT**
  - **Math**
  - **Science**
  - **Design Studio**
  - **Reading**
  - **Government**
Supporting students through current events with SEL
Exploring individual experiences and ideas

**Principals**

What was important was that my family stayed safe and all the baby pictures, furniture, and house and of course dog.

**Ideas**

If I could go to islands that were affected, I would bring food to people in need.

**Observation**

**Before**
- Trees standing
- People freaking out.
- No water
- Traffic
- Shutters up.
- All the furniture stored inside.

**After**
- Trees fell
- Landscape all riled up
- Windows, bro ken
- Community affected
- No traffic lights

**Experiments**

I will try to help the people in Key West and the people that were badly affected by hurricane Irma. I will do that by taking clothes and food to the shelter.

Julian H.
Exploring individual experiences and ideas

**PRINCIPLES**

- What's important to my family is me, my sister, my dad and my cats.
- What's important to me is my cats, my friends, my family and my stuff animals. My clothes and pictures.

**IDEAS**

- To give out clothes, pillows, bed sheets, blankets, waters, and shoes.
- I will help people pick up sticks and branches in front of their houses and the road.

**OBSERVATIONS**

<table>
<thead>
<tr>
<th>Before</th>
<th>During</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>We went to clear water beach</td>
<td>I was sleeping</td>
<td>Lots of trees &amp; sticks everywhere. There was signs, houses</td>
</tr>
</tbody>
</table>

**PEOPLE**

Schools, My friends, neighbors. My grandma & my nanny were freaking out about us.

**EXPERIMENTS**

- I would find a local community to give them out.
- I would ask my mom and to help me pick up.
Sharing experiences and ideas
Using these STEM skills in any SEL moment

#INNOVATORSCOMPASS
ela@innovatorscompass.org

**Stressed?**
Step back.

**Doing it alone?**
Connect with others involved.

**Limited by assumptions?**
Turn observations into questions (find out what is really happening).

**Fixed on 1 idea?**
Find what matters most about it & more ideas out there to do that.

**Can't choose?**
Use principles or quick experiments to help.

**Limited by assumptions?**
Turn it into an Observation.

**People who's involved**

**Principles**
What matters most?

**Ideas**
What ways are there?

**Observations**
What's happening?

**Experiments**
What's a step to try?

**Innovator's compass**

**Sketch by:**
@valeriasketches
...builds SEL skills

**SEL in REMOTE Learning**

<table>
<thead>
<tr>
<th>SOCIAL AWARENESS</th>
<th>RELATIONSHIP SKILLS</th>
<th>SELF AWARENESS</th>
<th>RESPONSIBLE DECISION MAKING</th>
<th>SELF MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BEING AWARE OF OTHERS</strong></td>
<td><strong>FUNCTIONING WITH OTHERS</strong></td>
<td><strong>MANAGING YOURSELF</strong></td>
<td><strong>MAKING EFFECTIVE DECISIONS &amp; LOOKING AT ALL SIDES OF AN ACTIVITY, ASSIGNMENT, SITUATION OR OPPORTUNITY</strong></td>
<td><strong>KNOWING &amp; CONTROLLING OURSELVES</strong></td>
</tr>
<tr>
<td>- The effect of our actions on others</td>
<td>- Respectful attitude &amp; language while Zoom calls are in session</td>
<td>- Lessons will be recorded</td>
<td>- Identify emotions &amp; take breaks throughout the day to stretch &amp; move</td>
<td>- Self-Confidence</td>
</tr>
<tr>
<td>- Practice empathy: if a classmate, friend, colleague, or family member needs help, support &amp; offer to help</td>
<td>- Practice listening to others</td>
<td>- Recognize your strengths and weaknesses</td>
<td>- Consider PROs &amp; CONs</td>
<td>- Prepared for class</td>
</tr>
<tr>
<td>- Engage in healthy conflict: it's okay to disagree, just don't get upset &amp; stay quiet about it</td>
<td>- Always remember your actions affect others</td>
<td></td>
<td></td>
<td>- Practice impulse control by not gaming, visiting other sites or using cell phones while working on assignments</td>
</tr>
</tbody>
</table>

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*Sketched by: @valeriasketches*

**these are the skills we have been practicing in unyted**

www.unyted.co
Collaborating with Parents
Empower students to take ownership.
- Prepare them for 5th grade organization.
- Create opportunities for Felix to shift to higher order thinking.
- Communication.
- Adjusting to new model.

**People**
Felix
Parents
Ms. Valeria

**Principles**

**Observations**
- Doesn't seem to like challenging others' views.
- Doesn't answer first too often, seems like he may be waiting for others.
- Lack of interest.
- Homework when reminded.
- Classwork.

- Lack of confidence.
- Not wanting to challenge others.
- Lack of understanding.

- Recalling vs. applying.
- Evaluating vs. analyzing.
- Lower level of Bloom's taxonomy.

- Likes reading.

**Printed Schedule Until Beginning Of May**
- Construct meaning from oral, written into.
- Summarize.
- Infer, explain.
- Break down topics into parts.

**Experiments**
What are we willing to try?

- Take time to think about 'Why' to answers or actions.
- Replay activities on SEL platform.
LET’S USE IT!

To share Observations and Ideas about Teaching STEM in COVID Times
Welcome to this workspace!

Please enter your name as it would appear to others:

|  |

[Cancel] [Submit]
Lean/Agile startups

Tinkering & Improvising

“Accidents” & “Sudden genius”
One question at a time, we’ll:

1. **Draft quietly:** double-click to start a sticky, save as **draft**.

2. **Share:** we’ll unmute one person at a time to “publish” and just read one sticky.
LET’S GO!

Teaching STEM in COVID Times:
icompass.me/compass/edit/720ccfb7