



the TEACHERS GUILD

Hacktivities

HACK YOUR WAY TO DEEP EMPATHY WITH THESE ACTIVITIES TO DO WITH COLLEAGUES, YOUR STUDENTS OR ON YOUR OWN.

How might we **cultivate**
curiosity and problem-solving
in our students through active
and authentic STEM?

#MINDBLOWINGSTEM

Welcome

You've downloaded this guide because you're participating in our design challenge on active and authentic STEM and you want to learn human-centered methods to get at deep empathy and insight! Congrats.

Use these Hacktivities to hack your way to empathy for our Discover phase! In Discover, it's all about being human-centered and developing insight to spark new ideas.

There are activities to do with students, colleagues or on your own! Don't forget to share what you learned in our Discover phase: www.teachersguild.org

HACKTIVITY #1

AdvertiSTEM

Activity with:
Grades: 4-9

DESCRIPTION:

Asking a student to create an advertisement is a great way to learn about what matters to them.

INSTRUCTIONS:

Ask students to create a poster / drawing advertising STEM. Ask them for a headline, and a catchy description. Ask how they would share what STEM is to an alien? When they're done, snap some pics of what they made and post them back on The Guild to share your insights.

SHARE:

Share your reflections in the Discover phase at www.TeachersGuild.org. Did this activity make you think about any opportunities for active and authentic STEM learning in your classroom?

HACKTIVITY #2

STEMspirations

Activity with:

Grades: 5-12**DESCRIPTION:**

Inspiration gathering is an important part of the design process - and actively seeking out what inspires you helps you learn more about future opportunities. This your chance to share a STEMSPIRATIONS - something happening in STEM education that's inspiring you right now.

INSTRUCTIONS:

There's so much happening in STEM right now - from MakerSpaces to Fablabs to cutting edge classroom technology. Share what's inspiring you in active STEM. Highlight not just what it is, but what YOU like about it in particular. This will help us synthesize future opportunities.

SHARE:

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HACKTIVITY #3

Empathy Interview

Activity with:
Students or Colleagues

DESCRIPTION:

Human-centered design means starting with people, first! By interviewing, you get a chance to get close to people and hear directly from them, in their own words. Interviews are at the heart of the Discover phase! Use this guide to get tips, jumpstart your interview, and record quotes.

INSTRUCTIONS:

Tips:

- **Ask why.** Then ask it again (and again).
- **Solicit stories.** "Tell me the last time you..."
- **Stay neutral.** Avoid offering up too much of your own perspective.
- **Sit with the silence.** Sometimes it takes a while to answer a tough question.
- **Take photos.** With permission, take some photos to help others learn from your experience.
- **Capture direct quotes.** Help share what you heard.

Interview process map:



Steps:

1. Identify a student, parent, colleague or community member you'd like to interview.
2. Coordinate a time.
3. Map out your questions ahead of time
4. Share back in The Discover phase!

SHARE:

Share your reflections in the Discover phase at www.TeachersGuild.org. What were some of the key insights you heard? What does it make you think about for future opportunities?

HACKTIVITY #4

Shadow a student in STEM

Activity with:
Students

DESCRIPTION:

Shadowing a student is a powerful tool to gain deep empathy and insight into this topic area. Use our Shadow Guide to capture insights and reflections.

INSTRUCTIONS:**Before:**

- Find a student to shadow + ask for permission. Share your goals with them!

During:

- **Observe with care.** Imagine yourself in the student's shoes.
- **Take photos + capture quotes.** With permission, take some photos and capture direct quotes to share back later.
- **Notice surroundings.** What is the student's body language telling you? When are they most animated? When are they most reserved? What emotions are they revealing? Are there inconsistencies between what the student says and what the student does?

After:

- How did it feel to be a student?
- What was the best moment? What was the most challenging moment?
- What early ideas or new insights did shadowing spark?

SHARE:

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HACKTIVITY #5

Roses and thorns

Activity with:

On your own**DESCRIPTION:**

The Discover phase is all about learning - and as educators, we have a lot to draw upon. Use this Hacktivity to reflect a bit on your own journey implementing STEM.

INSTRUCTIONS:

Share what's worked in your classroom (roses) and what, well, might have gone over a bit better (thorns). Focus on what you did and what you learned as a result. Then synthesize that into an insight for our How Might We question.

SHARE:

Share your reflections in the Discover phase at www.TeachersGuild.org. Did this activity make you think about any opportunities for active and authentic STEM learning in your classroom?