

CREATING COMPELLING AND EFFECTIVE TEACHING ACTIVITIES FOR TEACH THE EARTH

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OUTLINE

- Introduction to TTE
- Review Process and Rubric
- Activity Development

POLL QUESTION I

- Which of the following have you done from the Teach the Earth or SERC website?
 - a) Used a teaching activity or two
 - b) Used several teaching activities
 - c) Shared one of my own teaching activities
 - d) Shared several of my own teaching activities
 - e) None of the above

TEACH THE EARTH

- Resources for Teachers from administrative guidance to pedagogical philosophy
- Heavily weighted to content and undergraduate education
- Searchable database
 - Activity Type
 - Subject
 - Theme
 - “Location”

The screenshot shows the homepage of the Teach the Earth website. At the top is a banner with the title "TEACH THE EARTH" and a collage of images related to earth education. Below the banner, there's a navigation bar with links like "About" and "NAGT". The main content area is divided into several sections: "Browse Key Resources" with links to Teaching Materials, Workshops, Intro Geo, Career Development, Diversity, K12, Two-Year Colleges, and Departments; a search bar with the text "Search Multiple Earth Education Websites" and a "Go" button; a section titled "Transitioning to online teaching? Get help here. >" in a green button; "Explore Themes" with categories like Course Topics, Incorporating Societal Issues, Teaching Topics, and Enhancing your Teaching; a "Community" section with a "Join, Contribute" link; and a "News & Events" section with links to "What's New at SERC 2020", "NAGT's Continued Efforts to Fight Racial Injustice", and "Registration Deadlines for Upcoming NAGT Webinar Series". There are also images of "Top Community Contributors" and a "Show More" button.

<https://serc.carleton.edu/teachearth/index.html>

POLL QUESTION 2

- What is your primary teaching discipline?
 - a) Geology
 - b) Environmental Science
 - c) Atmospheric Sciences
 - d) Geography/GIS
 - e) Other

REVIEW PROCESS

- Teaching activity collection including new submissions are scheduled for review once per year at the [Earth Educators' Rendezvous Review Camp](https://serc.carleton.edu/earth_rendezvous/2020/program/sunday/activity_rc.html) (https://serc.carleton.edu/earth_rendezvous/2020/program/sunday/activity_rc.html)
 - 20-25 reviewers, stipend-supported, competitive application process
- Reviewers receive “[training](https://serc.carleton.edu/.../activity_rc.html#webinar)” (https://serc.carleton.edu/.../activity_rc.html#webinar)
- Activities are assigned by the editor, 2 reviewers per activity
 - Editor completes score reconciliation and final review
- Evaluation [Rubric](https://d32ogoqmya1dw8.cloudfront.net/files/NAGTWorkshops/cutting_edge_activity_review.v2.pdf) (https://d32ogoqmya1dw8.cloudfront.net/files/NAGTWorkshops/cutting_edge_activity_review.v2.pdf)
 - Scored on a 20-point scale
 - 5 categories, 4 points each equally weighted
 - Guiding questions and auto-scoring from radio buttons



RUBRIC

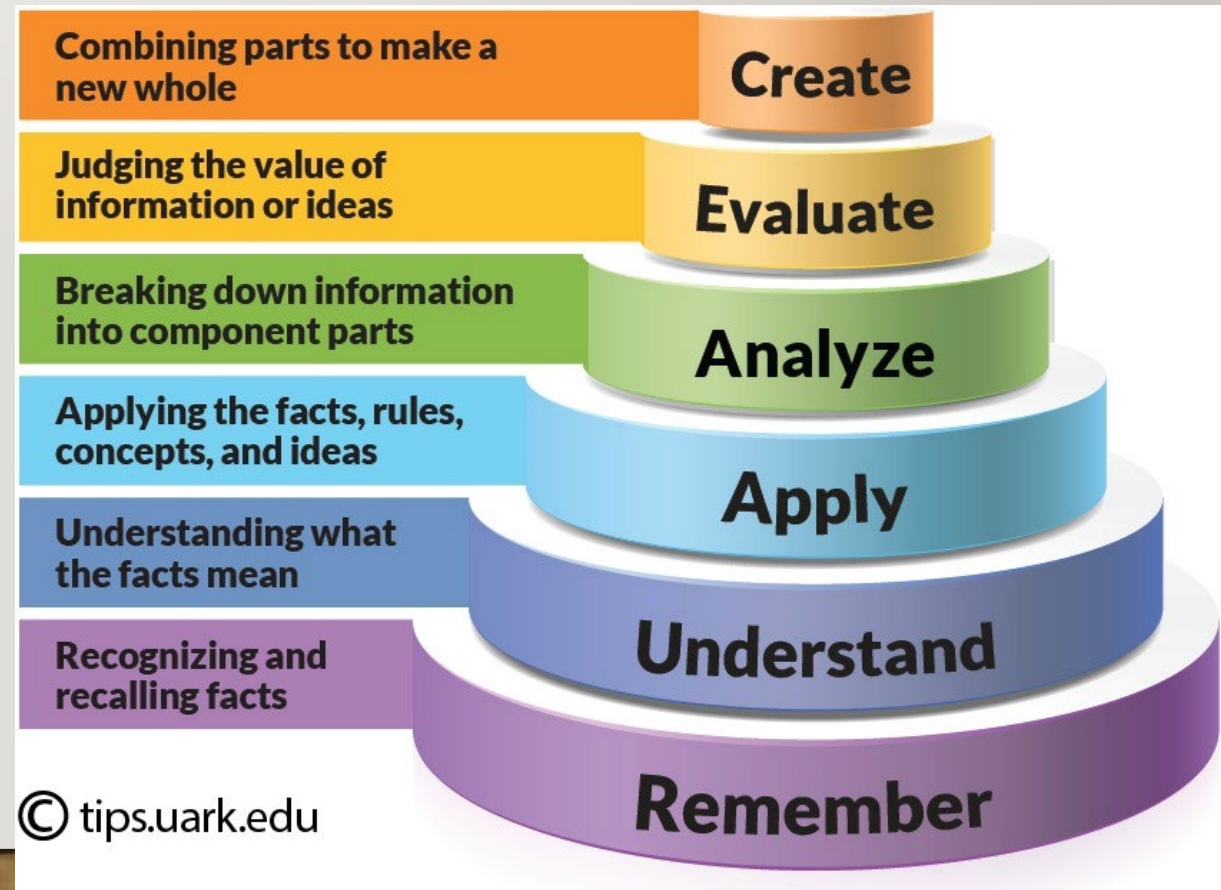
- Categories
 - Scientific Accuracy
 - Alignment of Goals, Activity, Assessment
 - Pedagogic Effectiveness
 - Robustness
 - Activity Description
- Guiding questions answers → “definitely, somewhat, a little, no, not applicable”
- Overall **category** score selection
 - Exemplary (4 points), Very Good (3), Adequate (2), Problematic (1 point)
 - Comment sections
- “Changes Needed to Qualify as Exemplary” summary comments
- Automatic final score calculation out of 20

POLL QUESTION 3

- Where would published, peer-reviewed teaching activities “count” toward your evaluation (promotion, tenure, etc.) at your institution?
 - a) Teaching
 - b) Scholarship, important
 - c) Scholarship, trivial
 - d) Service
 - e) It wouldn't. I wouldn't even bother including it in my dossier/package of materials.

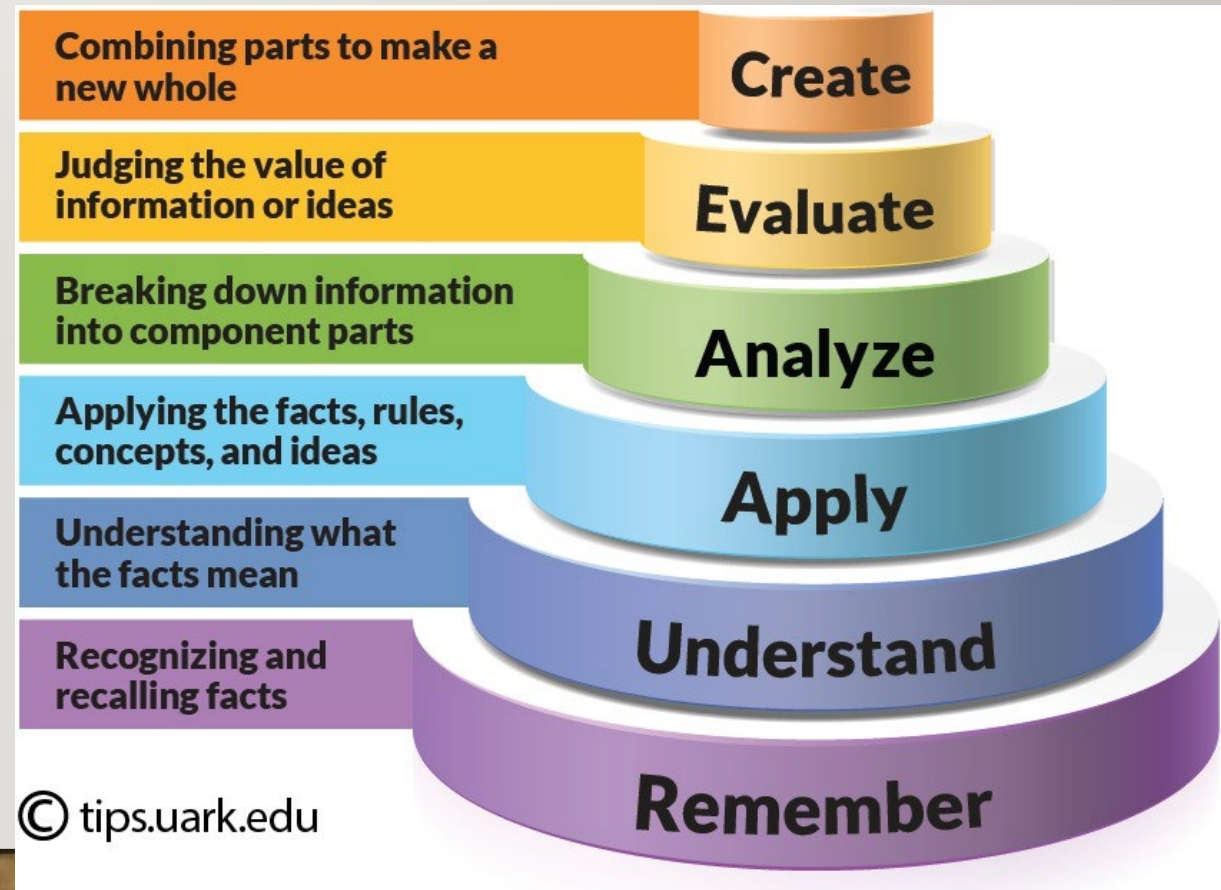
CREATING EFFECTIVE ACTIVITIES

- Reviewer Priorities
 - Goals/Assessment alignment
 - Begin with the end in mind when creating activities
 - Align with COURSE goals
 - Measurable goals : Assessments that actually measure
 - Bloom's Taxonomy
 - Consider content goals AND higher-level goals
 - Include “soft skills” and serendipity



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 - Solutions, Answer keys, scoring rubrics
 - Teaching Tips → misconceptions, modifications for online, “be careful of...”



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- Accessibility and Unconscious Bias
 - [Project Implicit](https://implicit.harvard.edu/implicit/) (<https://implicit.harvard.edu/implicit/>)
 - Sight, Hearing challenges
 - Physical limitations
 - Universal Design



Credit: Bent Chang / Shutterstock.com © 2019

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- Accessibility and Unconscious Bias
- Functionality → Availability (software, freeware, platforms, etc.); “Robustness” can be an all-or-nothing score
- Persistence
 - Websites
 - Software/Updates
 - Currency



LET'S TALK ABOUT YOUR NEEDS/WANTS...

- What do you most need from term to term in course development and refining your teaching and activities?
- What are your pet peeves about adopting/adapting others' activities?
- What do you wish you did better in developing activities?
- How can we encourage or incentivize more sharing of good teaching?
- Would you like to be a reviewer?

THANK YOU FOR YOUR PARTICIPATION!

