A THINKING ROUTINE FROM PROJECT ZERO, HARVARD GRADUATE SCHOOL OF EDUCATION

## Connect, Extend, Challenge

A routine for drawing connections between new ideas and prior knowledge.

How is the artwork or object **connected** to something you know about?

What new ideas or impressions do you have that **extended** your thinking in new directions?

What is **challenging** or confusing? What do you wonder about?

## Purpose: What kind of thinking does this routine encourage?

The routine helps students make connections between new ideas and prior knowledge. It also encourages them to take stock of ongoing questions, puzzles and difficulties as they reflect on what they are learning.

## Application: When and where can I use it?

A natural place to use this routine is after students have experienced something new. The routine is broadly applicable: Use it after students have explored a work of art, or anything else newly introduced in he curriculum. Try it as a reflection during a lesson, after a longer project, or when completing a unit of study. Try using it after another routine!

## Launch: What are some tips for starting and using this routine?

This routine works well with the whole class, in small groups or individually. Keep a visible record of students' ideas. If you are working in a group, ask students to share some of their thoughts and collect a list of ideas in each of the three categories Or have students write their individual responses on post-it notes and add them to a class chart. Keep students' visible thinking alive over time: Continually add new ideas to the lists and revisit the ideas and quetions on the chart as students' understanding around a topic develops.

Share your experience with this thinking routine on social media using the hashtags #PZThinkingRoutines and #ConnectExtendChallenge.



