

Backward design

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Earth Educators' Rendezvous 2019

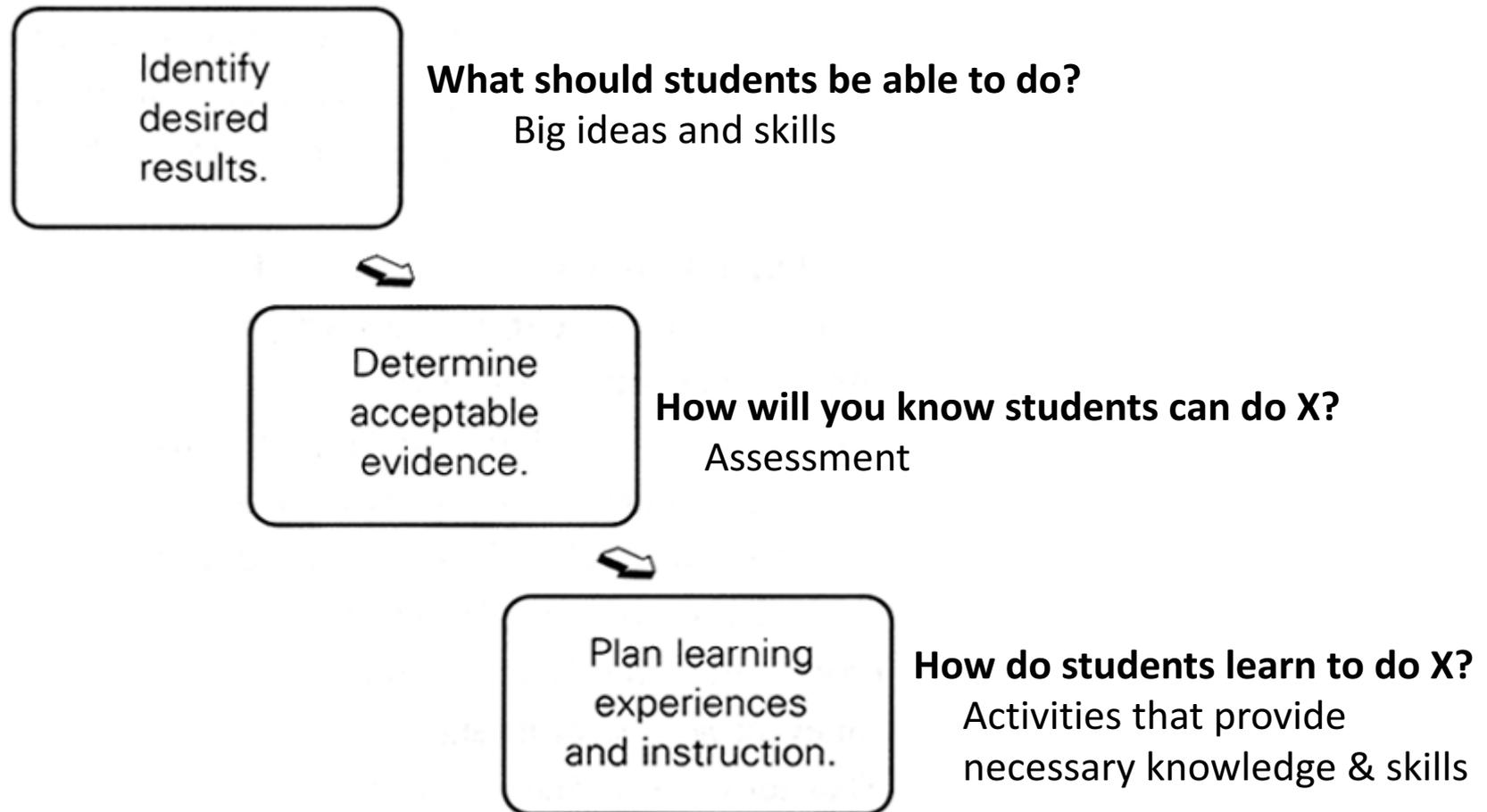
Nashville, TN

Where to begin with teaching?

- Decide the topics and activities of the course?
- Decide the assessments of the course?
- Decide the objectives of the course?

Understanding by Design

Wiggins & McTighe (1998)



Examples (note the verb)

- Design and complete a semester-long research project that is both quantitative and original.
- Use a variety of scientific tools to measure coastal and water column properties.
- Make reasoned predictions based on scientific data.
- Explain how feedback loops can stabilize or exacerbate change in the ocean.
- Distinguish between gradual, oscillating, and episodic variability in the ocean.
- Compare multiple natural and anthropogenic influences on ocean change.
- Evaluate coastal hazards and resources of the the U.S. Northeast, Gulf, West, and Caribbean coasts and assess their relative risk resilience.
- Apply systems thinking to make connections between marine science, history, policy, and literature, in the broad context of sustainability.

Write a course goal

- Needs to be MEASURABLE* and CLEAR
- Make it for introductory students, stated as something you expect them to be able to DO at the end of the course.
- Pick something that is relevant to being a professional in your field
 - could be very specific or a transferable skill

*Note: which of these could you observe students doing?

-knowing

-understanding

-appreciating