

NARROW QUESTIONS

Narrow questions (also known as “closed-ended questions”):

- have a specific answer
- help instructor know if students know a specific piece of information.
- require recall of information.
- encourage group response and convergent thinking
- tend to be overused by instructors

Narrow Question Examples:

- Is this an insect or a spider?
- What is the definition for decomposition?
- What is a marine mammal that has ear flaps, flippers, and barks like a dog?
- What is this called?
- What kind of animal is that?
- What gas do plants take in that we breathe out?
- Do animals photosynthesize?
- What time is high tide?
- What is a consumer?
- How many legs does it have?
- Is an oil spill bad for a river?
- What causes U-shaped valleys?
- What is the word used to describe how plants and algae make sugar?
- How long does it take for the Earth to orbit the Sun?

Narrow questions focus on facts:

- Narrow questions require the student to remember information or recognize information that is readily at hand. This is useful if you want students to recall a fact, define a term, identify something, or review a topic that’s already been learned. Narrow questions with specific answers can be used to recall past learning experiences to help get students ready for new learning experiences.
- A focus on narrow questions can make students who are good at recall think of themselves as “good” at science and make divergent thinkers think of themselves as “not good” at science. When science is taught as a set of facts to memorize, students who are better at remembering science facts often get identified as being “good at science” and may dominate science conversations. Those who are not as good at remembering facts may end up feeling like they’re not good at science. Using mostly narrow questions can reinforce this dynamic. Some students are skilled at thinking about big picture science ideas, but not as good at remembering specific details. Using more broad questions can help those students recognize their capacity for big picture thinking as an important part of scientific thinking, gives diverse thinkers and learners opportunities to be involved, and helps all students develop creative thinking skills.

Narrow questions can encourage synthesis of information:

- Narrow questions can help students synthesize information, as directed by the instructor. Specific questions that ask students to integrate what they've already learned can help students compare, contrast, associate, explain, state relationships, or arrive at certain conclusions. For example, "Look at the pictures of types of sea stars in the field guide and compare them with the sea star we saw. Which one was it?" or "What does the word, 'evidence' mean?" Even though a predictable answer is asked for, students may give an explanation in their own words.

Narrow questions prompt reliable responses:

- Narrow questions prompt a particular, predictable response planned by the instructor. When an instructor asks a narrow question, a specific "correct" response or set of responses is expected.