Formative Assessment Processing Activities:
Tools and Techniques to Check for Understanding

1. **Hand Signals**
   Ask students to display a designated hand signal to indicate their understanding of a specific concept, principal, or process: - You understand_____ and can explain it (e.g., thumbs up). - You do not yet understand _____ (e.g., thumbs down). – You are not completely sure about _____ (e.g., thumb sideways).

2. **Fist to Five**
   Ask student to display using a fist or their fingers on one hand to indicate their understanding of a specific concept, principal, or process: - On a scale of 0-5 how well do you understand _____?

3. **Analogy Prompt**
   Present students with an analogy prompt: (A designated concept, principle, or process) is like _____ because _____.

4. **Misconception Check**
   Present students with common or predictable misconceptions about a designated concept, principle, or process. Ask them whether they agree or disagree and explain why. The misconception check can also be presented in the form of a multiple-choice or true-false quiz.

5. **Self-Assessment**
   A process in which students collect information about their own learning, analyze what it reveals about their progress toward the intended learning goals and plan the next steps in their learning. Provide students tools to check their own understanding and instruction on how they should reflect on the outcome.

6. **Exit Tickets**
   Exit tickets are written student responses to questions posed at the end of a class or learning activity or at the end of a day. This could be done digitally or simply for a student's own self-reflection.

7. **Quizzes**
   Quizzes assess students for factual information, concepts and discrete skill. There is usually a single best answer. Some quiz examples are: multiple choice, true/false, short answer, matching, extended response.

8. **Debriefing**
   A form of reflection immediately following an activity. This could be collected digitally for you to review later, or done simply as a means for students to self-reflect on their understanding of the topic.

9. **One sentence summary**
   Students are asked to write a summary sentence that answers the "who, what where, when, why, how" questions about the topic. This could be collected digitally for you to review later, or done simply as a means for students to self-reflect on their understanding of the topic.

10. **Think-Pair-Share**
    Teacher gives direction to students. Students formulate individual response, and then turn to a partner to share their answers. Teacher calls on several random pairs to share their answers with the class.

11. **Think-Write-Pair-Share**
    Students think individually, write their thinking, pair and discuss with partner, then share with the class.

12. **One-Minute-Question**
    A question (or one-minute question) is a focused question with a specific goal that can, in fact, be answered within a minute or two. Have students write this down and discuss with each other, or simply hang on to their answer to reflect on their answer later when you have discussed the concept in greater detail.

13. **Muddiest Point**
    This is a variation on the one-minute paper, though you may wish to give students a slightly longer time period to answer the question. Here you ask (at the end of a class period, or at a natural break in the presentation), "What was the "muddiest point" in today's lecture?" or, perhaps, you might be more specific, asking, for example: "What (if anything) do you find unclear about the concept of 'personal identity' ('inertia', 'natural selection', etc.)?".

14. **3-2-1** (multiple variations)
    Typically this is something students do on their own for self-reflection as instructed by faculty.

    a. 3 key words
       2 new ideas
       1 thought to think about

    b. 3 important facts
       2 interesting ideas
       1 insight about yourself as a learner

    c. 3 differences between ___
       2 effects of __ on ____
       1 question you still have about the topic

    d. 3 things you found out
       2 interesting things
       1 question you still have

15. **Likert Scale**
    Provide 3-5 statements that aren't clearly true or false, but are somewhat debatable. The purpose is to help students reflect on a text and engage in discussion with their peers afterwards. These scales focus on generalizations about the concept(s). There are no clear cut answers. They help students to analyze, synthesize and evaluate information. Student responses could be evaluation with a simple hand raise, and/or this could be part of a think-pair-share activity.

a. One question on a Likert Scale might look like this:
   1. The clinician should (*or* should not) have done (action).
   (1) strongly disagree, (2) disagree, (3) agree, (4) strongly agree

16. **Whip Around**
    The teacher poses a question or a task. Students then individually respond on a scrap piece of paper listing at least 3 thoughts/responses/statements. When they have done so, students stand up. The teacher then randomly calls on a student to share one of his or her ideas from the paper. Students check off any items that are said by another student and sit down when all of their ideas have been shared with the group, whether or not they were the one to share them. The teacher continues to call on students until they are all seated. As the teacher listens to the ideas or information shared by the students, he or she can determine if there is a general level of understanding or if there are gaps in students' thinking."