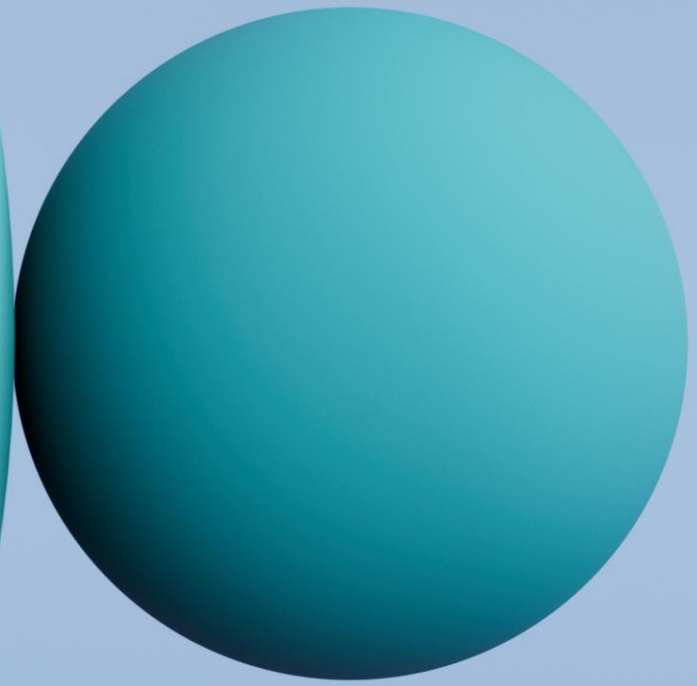
Achieving Success in Science

Fostering Self-Management | Grades 6-8

ECS Learning Systems

- To achieve real success in science, students must be actively involved in their learning.
- Mere memorization of words, facts, and formulas does not develop the kind of scientific literacy that students need—and deserve— for the world they live in.
- Self-management is an important part of active learning.



Self-management includes the following:

Self-monitoring:

Students should know how to tap into what they already know about a topic or a concept.

Self-regulation:

Successful students recognize when a process or approach is not leading them in the right direction toward a correct answer.

Self-assessment:

Students who know how to evaluate both their problem-solving strategies and the results of their work have a greater chance of success in science.

How parents foster this kind of self-management for their student?

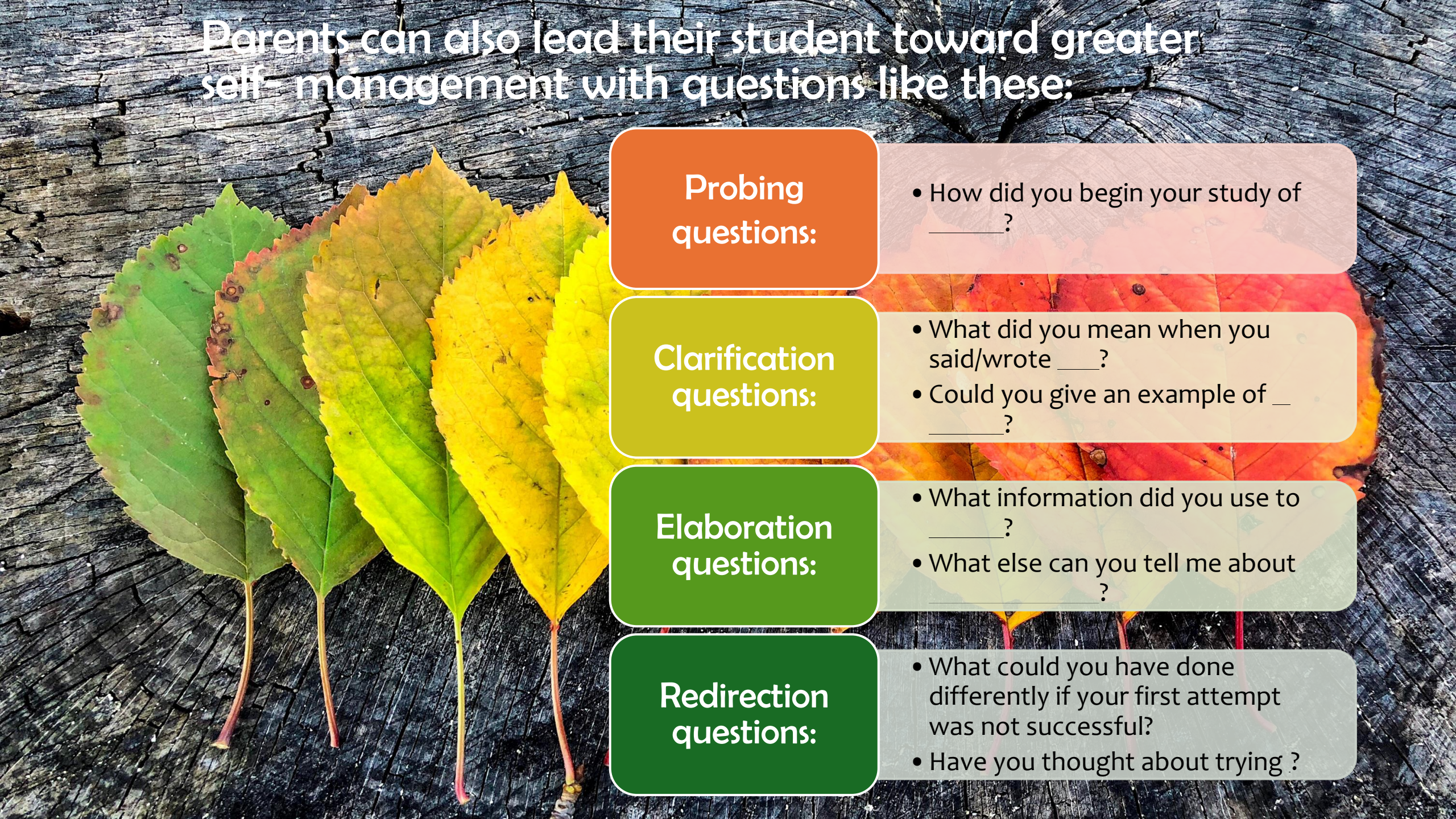
- Effective questioning strategies provide one way to encourage students.

- Parents can model the kinds of questions that students should be asking themselves as they engage in learning.

Some examples of such self-monitoring questions appear below.

- What am I supposed to know or discover about_?
- What do I already know about ___?
- What can I do with what I already know?
- Could there be more than one right answer or solution?
- Is any important information missing? If so, what is it?
- Have I read or learned about similar concepts or ideas in the past?
- What problem-solving strategies do I know?
- Which problem-solving strategies might help me with this task?
- What have I learned about _____?
- How well do I understand _____ now?
- Was my problem-solving strategy successful? Why or why not?
- What could I have done differently?
- What else would I like to know about _?

Parents can also lead their student toward greater self- management with questions like these:



Probing questions:	• How did you begin your study of _____?
Clarification questions:	• What did you mean when you said/wrote ____? • Could you give an example of __ _____?
Elaboration questions:	• What information did you use to _____? • What else can you tell me about _____?
Redirection questions:	• What could you have done differently if your first attempt was not successful? • Have you thought about trying ?

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