

# SCIENCE SUPPORTS FOR ELS

## Analyzing Science Skills for Language

**Scientific Concepts** are often language heavy at the word and sentence level. Models, videos, and other visuals can help ELs better understand the processes and ideas of science.

**Academic Vocabulary** is prevalent in science and can be difficult for all students. ELs may need extra support, including visuals, native language support, examples, and non-examples. Beginner and Intermediate ELs may also need similar support with vocabulary other students already know.

**Syntax** – Scientific language has its own sentence structures. To begin learning these, sentence frames can model ways of talking about science for EL students.

**Processes** – For topics such as chemistry equations, Mendelian genetics, experiments, and other procedures students must use to solve a problem, modeling helps EL students follow the process.

## Translated Resources for Newcomers and SLIFE Students

[Bilingual Glossaries](https://bit.ly/biligloss) (bit.ly/biligloss)– allowable on state tests and can help make vocabulary connections

**The following websites provide science instruction in multiple languages:**

- [Khan Academy](https://www.khanacademy.com)
- [Crash Course](https://www.crashcourse.com) (YouTube subtitles created by native speakers)

## Modifications & Scaffolds

### Newcomers

A balance of translated, read aloud, and simplified English materials to learn new concepts, use of visuals, modeling, & review

### Intermediate

Often need support for academic vocabulary and modeling for new concepts.

### Long Term English Learners (LTELs)

Typically need support with reading. Providing visuals to support text, modeling, and reading text aloud often help.

## Assessment and Feedback

**“Show What You Know”** – The goal of accommodations on assessments for ELs is to lower the demands of producing or understanding English and identify gaps in content knowledge. Thus, the same modifications used to teach ELs are often useful in assessing.

**Accommodations** such as providing an alternate task for EL students, reading questions aloud, explaining context, providing visuals to scaffold language, using sentence stems and word banks, and more can be used on classroom tests.

**Differentiated Feedback** – just as different students have different needs for instruction and assessment, the way you give feedback might differ. For LTELs, verbal feedback may be best. Newcomers may prefer written feedback so they can translate it. Intermediate ELs may need you to model the correct way to see where they made a mistake.