

ALEKS

Assessment and
Learning in
Knowledge Spaces

What is ALEKS?

Assessment and LEarning in Knowledge Spaces is a Web-based, artificially intelligent assessment and learning system. ALEKS uses adaptive questioning to quickly and accurately determine exactly what a student knows and doesn't know in a course. ALEKS then instructs the student on the topics he/she is most ready to learn. As a student works through a course, ALEKS periodically reassesses the student to ensure that topics learned are also retained.

How does ALEKS serve our students?

- **Focusing on our Priority Area for Improvement #1 (PAI #1)**
 - **This sub group is the bottom 25% of performance in standardized tests (ISTEP).**
 - **In 2013-2014 these students had a pass rate of only 15.5% .**
 - To increase the overall pass rate to 80%, 11 students identified in the bottom 25% will need to achieve a passing ISTEP score.

(STUDENT ACHIEVEMENT PLAN 2014-2015)

Why does ALEKS fit our need?

- Driven by what that individual student is READY to learn.
- Spirals learning through daily review and periodic assessments.
- Encourages students to develop understanding through personal inquiry of topic and then walks them through the process at their pace.
- Develops a foundation of math skills and builds on it continually at the students pace.
- Students can see success not failure.
- Students and teachers can access this from home or school.

What does the student do?

- ALEKS first assesses the student and finds the strengths and weaknesses of the student.

- ALEKS then creates the pie.



- The pie shows strengths and weaknesses. It is divided by topic.
- Students click on the pie and it will take them to a lesson on the clicked topic. If successful they can earn a piece of the pie.
- Students can not stay on one piece for too long ALEKS makes them move on to work on those topic they struggle at.
- Students also have to review topics learned periodically, as determined by ALEKS.

How does Northridge achieve success through the ALEKS program?

- **In class ALEKS time**

- 20 minutes per day

- **Intensive focus groups**

- 65 minutes a day small group for one trimester

In class ALEKS time

- **Who falls into this group?**
 - Those students who fall in the bottom 25% of performance or who have been identified by the teachers.
- **How much time allotted?**
 - 20 minutes per class
- **How can this our help students?**
 - Differentiates the classroom instruction to provide individual remediation in areas in which that particular student struggles.

Intensive focus groups

- **Who falls into this group?**
 - Those students who fall in the bottom 25% of performance or who have been identified by the teachers.
- **How much time allotted?**
 - 65 minutes per class

Intensive focus group

- **Individual instruction**

- Students are required to go through the “explain” process in the ALEKS program before support is given.
 - Allowing the student to inquire before support is given is a crucial part of the ALEKS program.
- When support is given the teacher will walk through the problem/problems with the student, he or she can generate worksheets through the ALEKS program or provide other supplements to help the student.

- **Small group instruction**

- Students receive grade level instruction once a week in an area they are struggling on based on the ALEKS data provided.

Intensive focus group

- **Math fact practice / Quick Tables**
 - Three times a week for 20 minutes
- **Assessments**
 - Driven by ALEKS
 - Assessments are given automatically through out the journey to assess where each student is at. This will realign the “Pie” for the student.
 - Directed by teacher
 - Assessments are given by the teacher every three/four weeks based on each students “Pie” . These assessments drive individual goals.

Intensive focus group

- **Goal setting**
 - Goals are established after each assessment. (50 points)
 - Students are given 3-4 weeks to work on goal in class, SRT, and at home.
 - Each student has a different number to achieve due to their “Pie”.
 - All students know their “Pie” numbers and can monitor progress.
 - Goal dates are posted, talked about everyday, and students update their “Pie” numbers as the class progresses.

Intensive focus group

- **Celebrations and classroom culture**
 - **Step one: Creating a culture of success**
 - Make ALEKS a positive part of the students day and their total learning experience.
 - Create a mindset of what the student can do and work on what we struggle with.
 - Make the teacher the coach.
 - **Step two: Celebrating the meeting of a goal**
 - Students positive steps toward goal are shared in class.
 - Students who achieve goal receive incentives for success.
 - **Step three: Celebrating the completion of ALEKS**
 - Make it a BIG deal!

Why ALEKS?

- Allows for constant monitoring of each groups /individual student's strengths and weaknesses.
- Provides the teacher with minute by minute monitoring of growth.
- Differentiates instruction down to the individual student to provided leveled instruction the student is ready for and builds on that.
- Provides support for the student at a click of a button.
- Provides technology applications needed for future testing situations.
- Constantly assesses student progress and provides feedback to the teacher and the student.
- Allows for teacher control and manipulation to make it work for your school's situation/need.
- **ALEKS builds on success and not failure.**