

# NEO

by CYPHER LEARNING

## Competency-based learning

# Competency-based learning

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# Competency-based learning

## Introduction

NEO is a world-class, award-winning learning management system (LMS) for schools and universities. The platform is known for delivering a great user experience while incorporating all the essential tools schools need to support effective teaching and learning.

NEO helps schools manage all classroom activities, such as creating and delivering educational content, assessing students, tracking their results, and promoting communication and collaboration between students and teachers/faculty.

NEO is a product of CYPHER LEARNING, a company that specializes in providing learning platforms for organizations around the world. CYPHER LEARNING provides a similar LMS for use by businesses called MATRIX and an LMS for use by entrepreneurs called INDIE. CYPHER LEARNING products are used by over 20,000 organizations, have millions of users, and have won several awards.





# Competency-based learning

## What is competency-based learning?

Competency-based learning emphasizes the demonstration of concrete and measurable skills. Usually, a class must cover certain standards or help students acquire certain competencies. By using competencies, teachers can track how well students are learning those skills, one by one.

Competency-based learning also focuses on skill mastery. The main principle is that students progress through competencies as they learn and cannot advance from one module to another without having mastered them first.

## How does NEO support competency-based learning?

NEO helps institutions to successfully implement competency-based learning through our Mastery feature. Schools can upload competencies in NEO or create their own competencies, then tag class content with the competencies it should be teaching and assignments with the competencies it should be assessing. Mastery helps teachers save time as well as ensuring that they can keep up with each student's progress through the class and have an overall view of how well the class teaches the competencies. It also allows educators to intervene if students are struggling with a particular topic or need additional help.



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## An example of competency-based learning using NEO

A 2nd grade Geography class has to teach all the concepts that students need to know for their grade level. The teacher can create a new competency set for the class or choose to use the built-in common core competency standards. Either way, each lesson and assignment can be tagged with the competencies that they are teaching and assessing. For example, a lesson about Weather types should teach students how to identify common weather phenomena such as rain or snow and less common ones such as hurricanes.

The teacher is then able to see if the lesson only partially teaches the concepts or if there are certain learning units that don't cover any competency. An incomplete lesson about Weather Types would mean that the lesson does teach students about uncommon weather types, but there is no assignment to assess what they know.

The educator can track each student's progress through the class and see how well they are doing on each competency. In addition, they can help when students are struggling with a particular concept. The teacher can also trigger actions such as automatically sending messages, enrolling students in groups, awarding badges, and more. This way, the teacher can make sure that students are assessed equally, that they are learning what they are supposed to learn, and that they receive support when they need it.



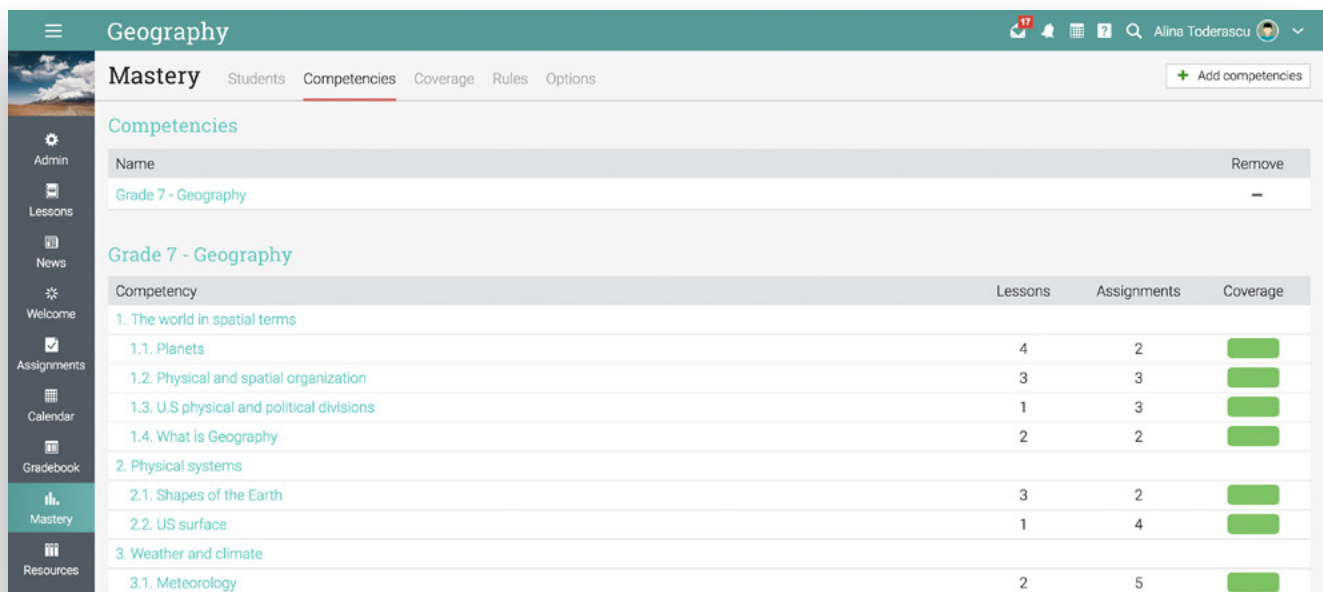
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## How to use Mastery in NEO

NEO provides all the tools teachers need to make sure class content is compliant with standards and to track student progress using competency-based learning. Here is an overview of the Mastery features available in NEO:

### Upload or create competencies

Teachers can create competencies directly in NEO or they can upload their own. We also offer a library of built-in standards such as US Common Core Standards, Next Generation Science Standards, Philippines High School Standards and Math, English, and Science standards for CA, TX, NY, IL, CO and PA. You can add one or more set of competencies to a class.



Geography			
Mastery			
Competencies			
Name			Remove
Grade 7 - Geography			—
Grade 7 - Geography			
Competency	Lessons	Assignments	Coverage
1. The world in spatial terms			
1.1. Planets	4	2	
1.2. Physical and spatial organization	3	3	
1.3. U.S physical and political divisions	1	3	
1.4. What is Geography	2	2	
2. Physical systems			
2.1. Shapes of the Earth	3	2	
2.2. US surface	1	4	
3. Weather and climate			
3.1. Meteorology	2	5	



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## Add competencies to lessons and assignments

After competencies have been added to the class, teachers can tag lessons with the competencies it should be teaching and assignments with the competencies they should be assessing.

### Lesson overview

Sections **Competencies** Completion Personalize Notes

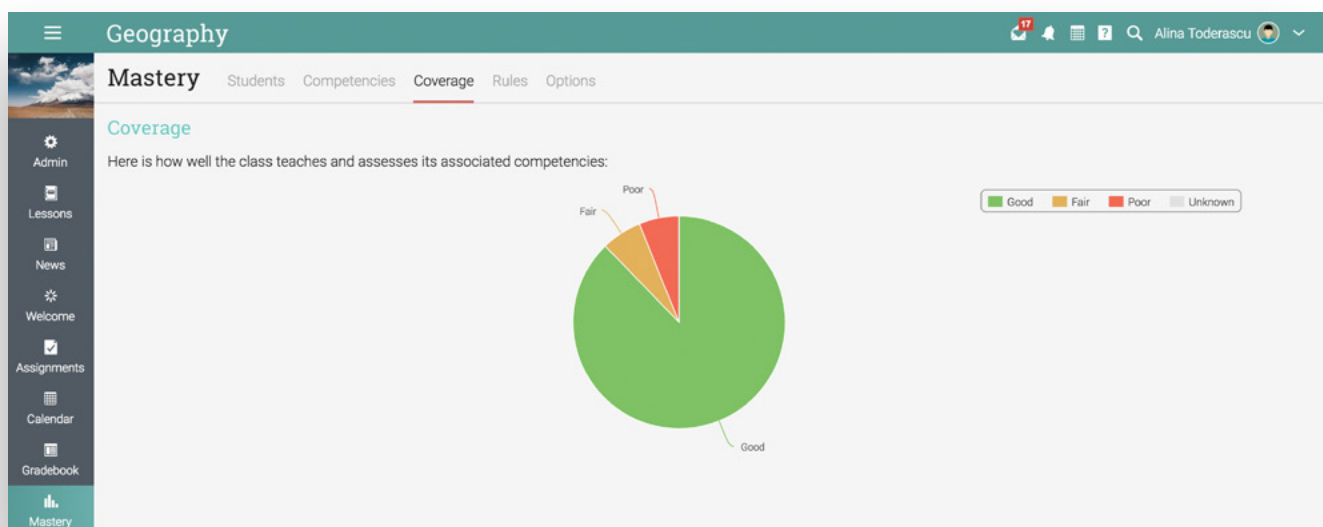
#### Grade 7 - Geography

- 2. Physical systems
  - 2.2. US surface
- 3. Weather and climate
  - 3.1. Meteorology
  - 3.2. Phenomenons

Edit Clear

## Coverage analysis of competencies

After tagging the class content and assignments with competencies, you can see an overview of how well your class covers the competencies. This is a great way of identifying weak spots in your class and making sure each competency is being taught and assessed during the class.



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## Automation for Mastery

You can add actions that should be performed when students reach a certain competency level. For example, if they achieve more than 80% on a competency you can unlock an advanced lesson. If a student stays between a 30 - 40 % competency level for more than 10 days, you can set up a rule to get an alert when this happens and send students recommendations on how to improve in that area.

**Geography** 17 🔔 📅 ? 🔍 Alina Toderascu 👤

**Mastery** Students Competencies Coverage Rules Options + Add rule

**Rules**

This is the area where you can add actions that should be taken automatically when learners have a competency rating within a specified range for a specified number of days. You can use this feature to trigger actions such as automatically send them recommendations on how to improve in that area, unlock advanced modules, or to alert you so you can help the student.

**3. Weather and climate**

The following actions are performed if this competency > 80% for at least 7 days:

Action	Added	Edit	Remove
🔔 Send custom notification to user (Account type in Student)	Jan 18, 2018	✎	✖
🔓 Unlock lesson Climates	Jun 8, 2018	✎	✖

+ Add action ✎ Edit ✖ Delete

**3.1. Meteorology**

The following actions are performed if this competency < 30% for at least 10 days:

Action	Added	Edit	Remove
🔔 Send custom notification to teacher	Jun 8, 2018	✎	✖

+ Add action ✎ Edit ✖ Delete





# Competency-based learning

There are many options for actions that can be triggered, such as enrolling students in classes and paths, sending messages to students and teachers, locking lessons, and more.

### Add action

<b>Add to group</b> Add the user as a member into a specific group.	<b>Award badge</b> Sent to a student when they are awarded a badge
<b>Award certificate</b> Sent to a student when they are awarded a certificate.	<b>Award points</b> Sent to a student when they are awarded points
<b>Enroll in class</b> Enroll the user into a specific class.	<b>Enroll in path</b> Enroll the user into a specific path.
<b>Hide assignment</b> Hide an assessment	<b>Hide lesson</b> Hide a lesson
<b>Lock lesson</b> Lock a lesson	<b>Send custom notification</b> Send a custom notification.
<b>Show assignment</b> Show an assignment	<b>Show lesson</b> Show a lesson
<b>Unlock lesson</b> Unlock a lesson	<b>Webhook</b> Invoke an API
<b>xAPI</b> Invoke xAPI	

## Save and share competencies as Resources

Created competencies can be stored in the Resources library and reused for other classes. They can also be shared with other teachers at a school or district-level.

### Earth

Catalog Locker Uploaded files School District

**Assignment**  
4 items

**Badge**  
3 items

**Certificate**  
3 items

**Competencies**  
1 item

**File**  
1 item

**Page**  
1 item

**Rubric**  
1 item

**SCORM package**  
3 items

**Web resource**  
27 items

# Competency-based learning

## Tracking student progress in classes

As students advance through the class you will see an overview of their mastery level and how well they are understanding the concepts. The mastery grid displays details about the level of each competency and you can easily identify areas where students are doing well or where they are struggling.

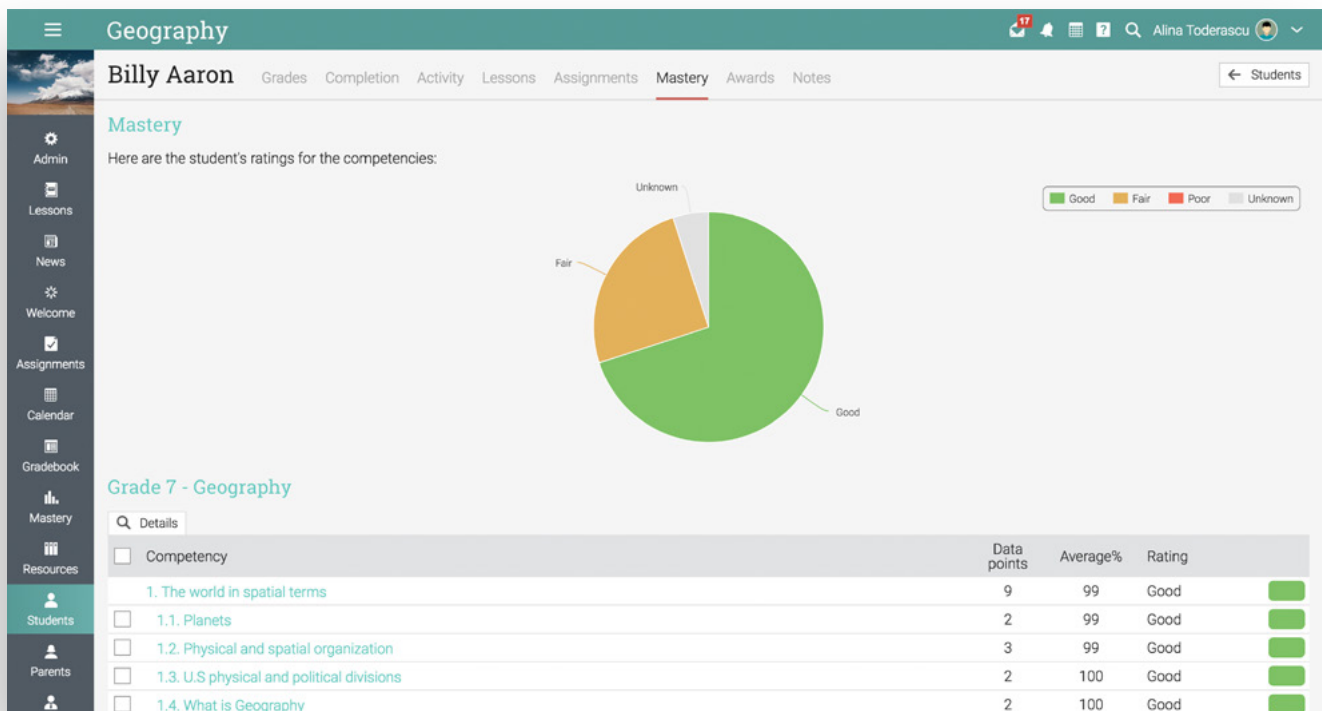
Competencies		The world in spatial terms	Planets	Physical and spatial...	US physical and political...	What is Geography	Physical systems	Shapes of the Earth	US surface	Weather and climate	Meteorology	Phenome
Code		1	1.1	1.2	1.3	1.4	2	2.1	2.2	3	3.1	3.2
Student	Average	86%	87%	90%	76%	92%	81%	79%	82%	68%	65%	65%
Aaron, Billy	87%	99%	99%	99%	100%	100%	93%	94%	93%	76%	67%	75%
Benett, Tudor	68%	86%	89%	85%	81%	90%	56%	50%	61%	41%	30%	39%
Besto, Bex	59%	57%	9%	90%	33%	95%	50%	50%	50%	32%	41%	19%
Damian, Steve	88%	91%	93%	96%	75%	100%	99%	99%		77%	71%	85%
Diss, Travis	82%	88%	94%	85%	88%	88%	87%	93%	80%	65%	54%	63%
Dobbs, John	72%	92%	98%	95%	75%	100%	68%	50%	86%	57%	54%	44%
Foster, George	78%	88%	96%	91%	72%	95%	93%	93%	92%	58%	52%	50%
Frey, Peter	30%	55%	88%	77%	0%		33%	0%	66%	18%	55%	0%
Henderson, Rox...	86%	94%	99%	92%	83%	100%	71%	50%	93%	73%	78%	64%
Irving, Charles	89%	98%	98%	98%			83%	83%		83%		83%
Johnson, Katie	73%	89%	99%	99%	63%	95%	94%	93%	95%	58%	63%	52%
Johnson, Sally	84%	96%	100%	100%	93%	93%	92%	93%	91%	69%	68%	55%
Kwan, Alan	72%	89%	100%	98%	63%	95%	86%	83%	89%	66%	73%	71%
Lim, Adrian	75%	92%	92%	92%	89%	96%	74%	70%	78%	53%	33%	53%

Mastery levels for all students are also displayed in the Students area of a class and information is updated in real-time.

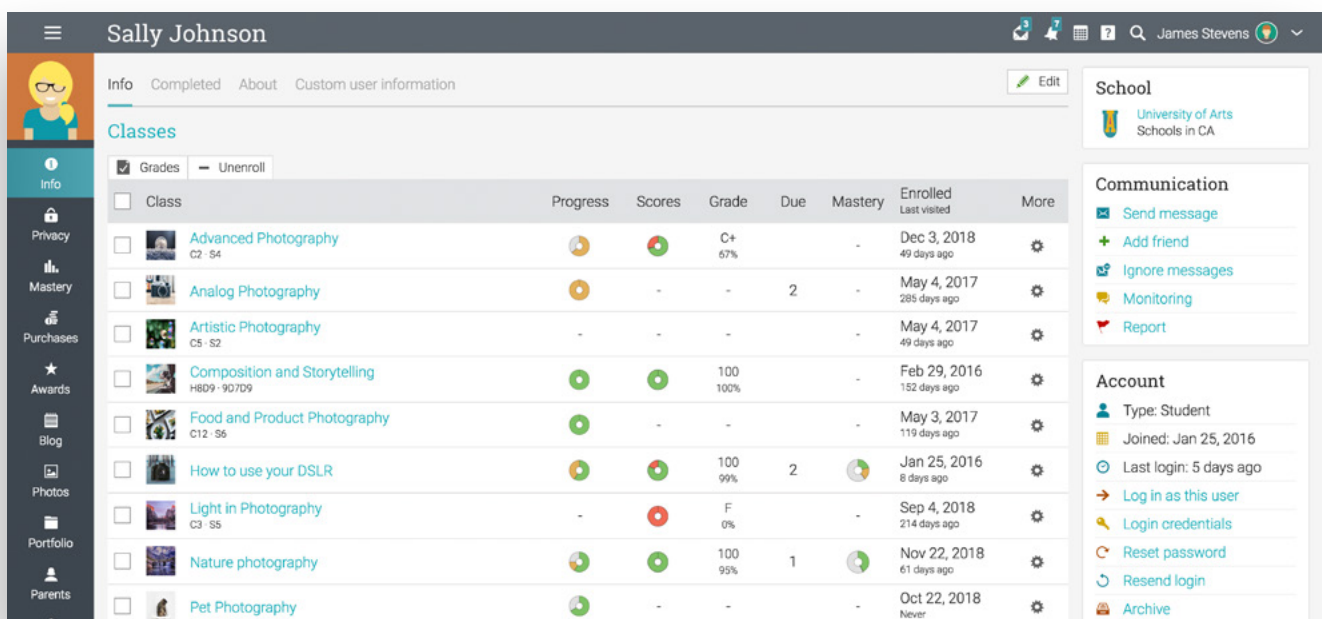
Student	Progress	Scores	Grade	Due	Awards	Mastery	Enrolled Last visited	More
Benett, Tudor			C 62%	3	6		Dec 21, 2016 524 days ago	
Besto, Bex			C+ 68%	3	10		Dec 21, 2016 655 days ago	
Damian, Steve			B+ 82%	3	15		Jun 21, 2018 210 days ago	
Diss, Travis			A- 87%	-	10		Jul 14, 2016 176 days ago	

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You can also see details about a student's mastery level by clicking on the Mastery chart in the Students section.



Mastery progress is also displayed on the profile pages of students.

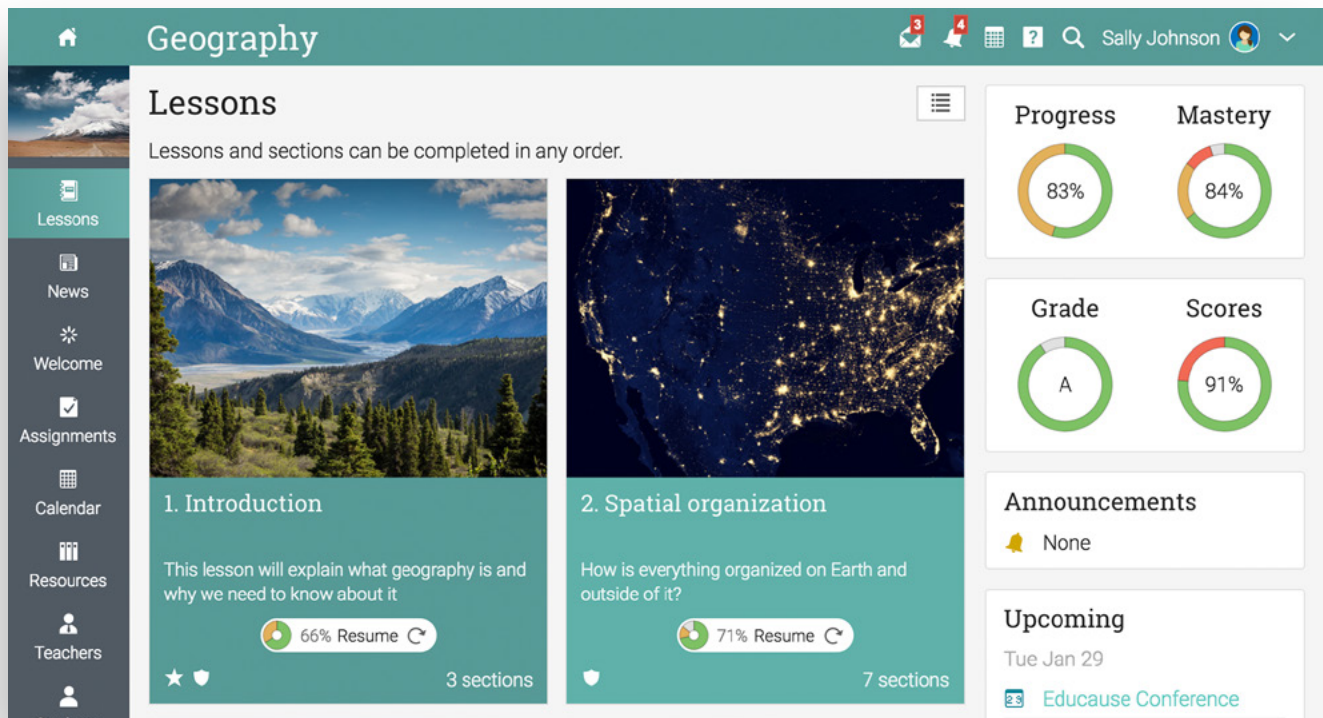




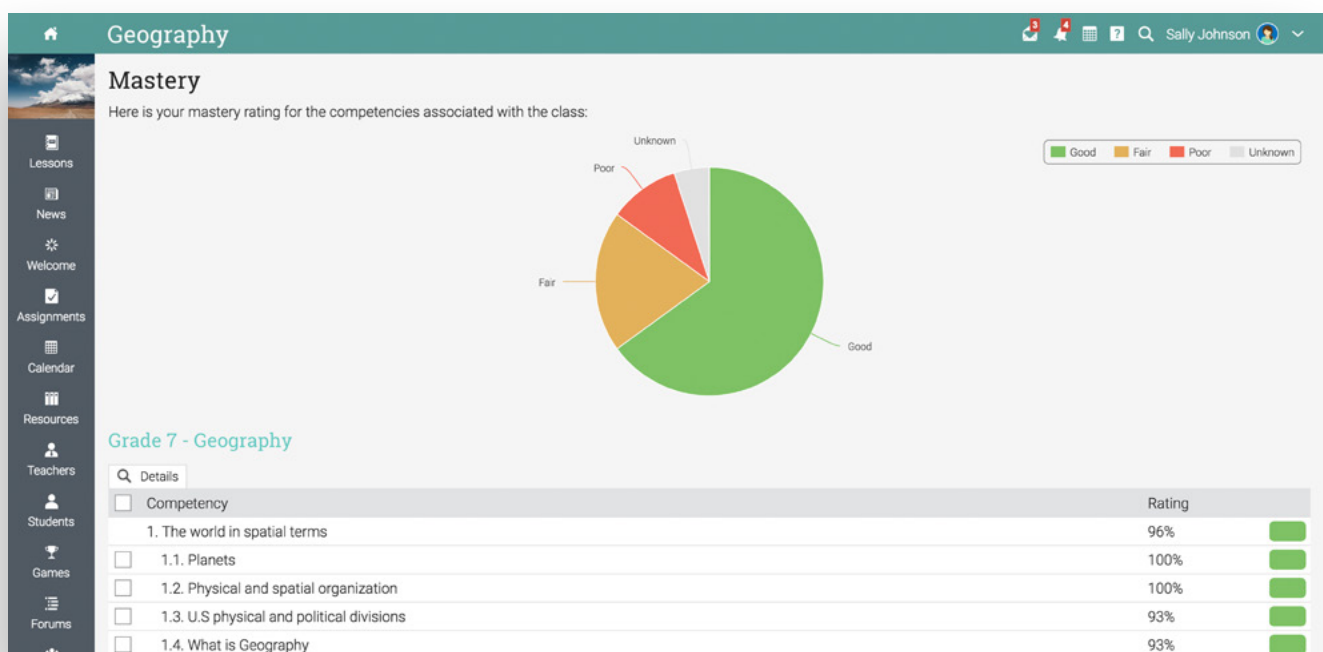
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## Student view of mastery

Students can see their mastery progress on the class landing page.



If they click on the Mastery chart, they will see a detailed overview of their progress through the class competencies.



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## Summary

NEO provides an easy and effective way to track student progress in classes using competency-based learning. For more details about our Mastery feature, please contact us at [info@cypherlearning.com](mailto:info@cypherlearning.com) or visit our website.

[www.neolms.com](http://www.neolms.com)

