

Competency-based learning for academia



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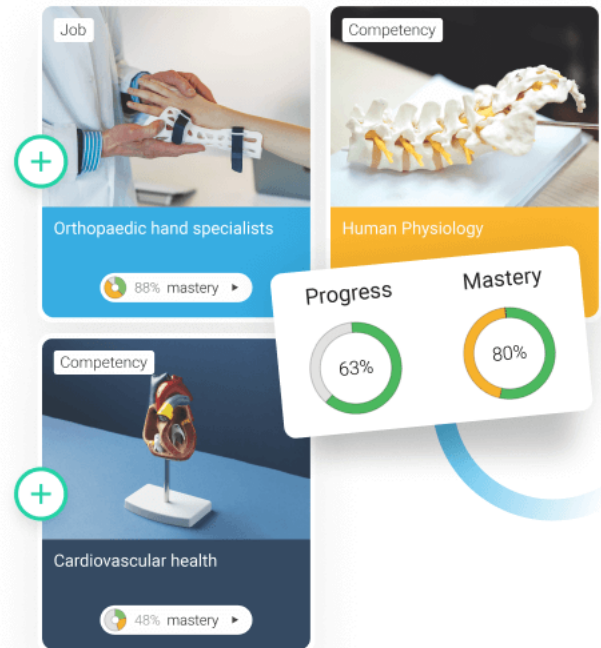
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CYPHER provides all the tools teachers need to make sure class content is compliant with standards and to track student progress using competency-based learning.

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 CYPHER support competency-based learning?

CYPHER helps institutions to successfully implement competency-based learning through our Mastery feature. Schools can upload competencies in CYPHER 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.

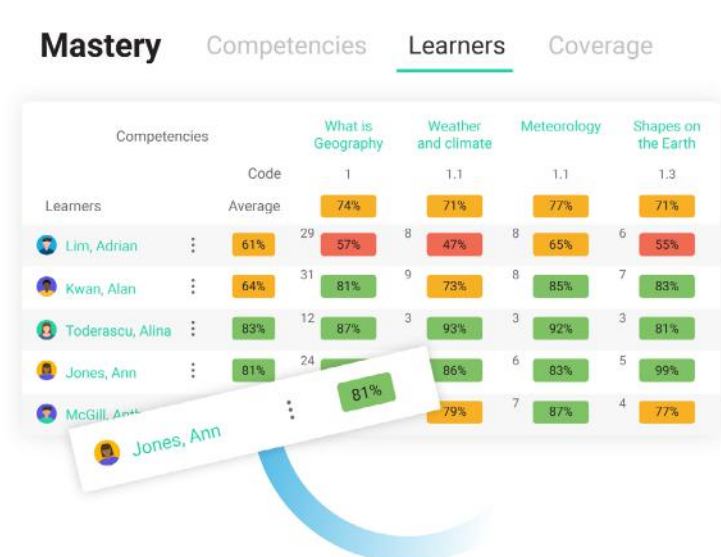
An example of competency-based learning using CYPHER

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.



The teacher can also track each student's progress through the class and see how well they are doing on each competency.

How to use Mastery in CYPHER

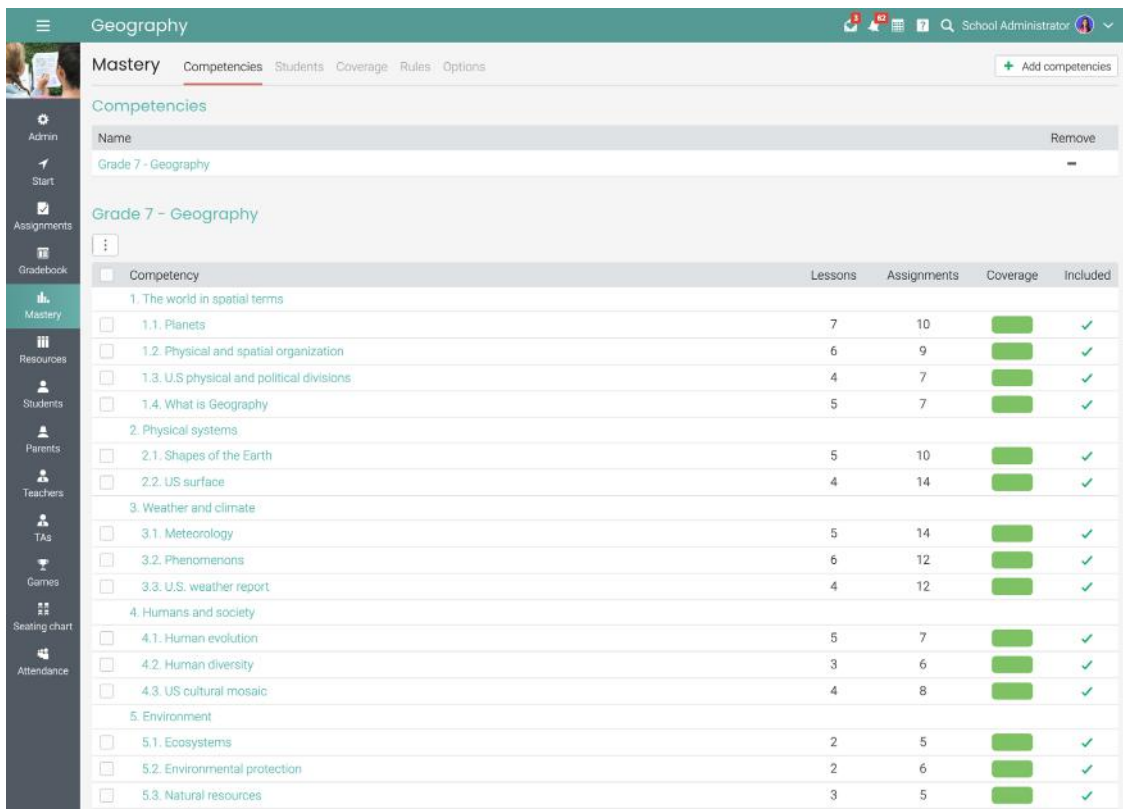
CYPHER provides all the tools teachers need to make sure class content is compliant with standards and to track student progress

using competency-based learning. Here is an overview of the Mastery features available in CYPHER:

Upload or create competencies

Teachers can create competencies directly in CYPHER 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 sets of competencies to a class.

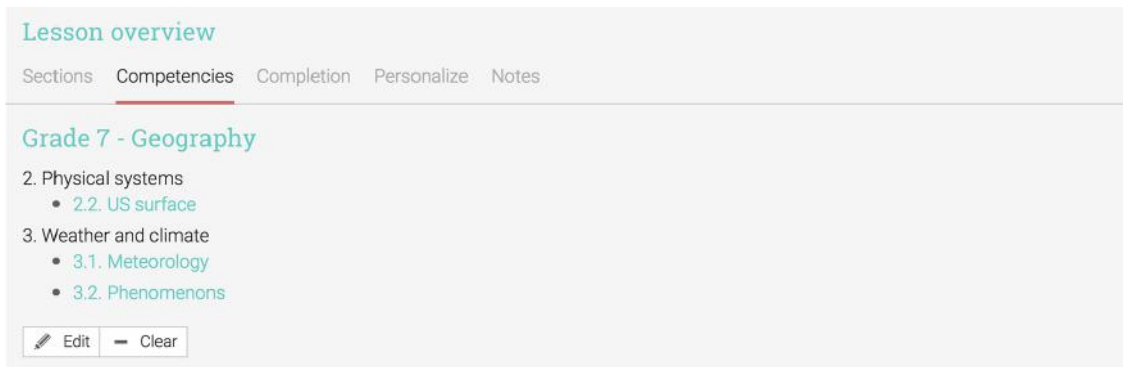


Competency	Lessons	Assignments	Coverage	Included
1. The world in spatial terms				
<input type="checkbox"/> 1.1. Planets	7	10	<div></div>	✓
<input type="checkbox"/> 1.2. Physical and spatial organization	6	9	<div></div>	✓
<input type="checkbox"/> 1.3. U.S. physical and political divisions	4	7	<div></div>	✓
<input type="checkbox"/> 1.4. What is Geography	5	7	<div></div>	✓
2. Physical systems				
<input type="checkbox"/> 2.1. Shapes of the Earth	5	10	<div></div>	✓
<input type="checkbox"/> 2.2. US surface	4	14	<div></div>	✓
3. Weather and climate				
<input type="checkbox"/> 3.1. Meteorology	5	14	<div></div>	✓
<input type="checkbox"/> 3.2. Phenomenons	6	12	<div></div>	✓
<input type="checkbox"/> 3.3. U.S. weather report	4	12	<div></div>	✓
4. Humans and society				
<input type="checkbox"/> 4.1. Human evolution	5	7	<div></div>	✓
<input type="checkbox"/> 4.2. Human diversity	3	6	<div></div>	✓
<input type="checkbox"/> 4.3. US cultural mosaic	4	8	<div></div>	✓
5. Environment				
<input type="checkbox"/> 5.1. Ecosystems	2	5	<div></div>	✓
<input type="checkbox"/> 5.2. Environmental protection	2	6	<div></div>	✓
<input type="checkbox"/> 5.3. Natural resources	3	5	<div></div>	✓

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

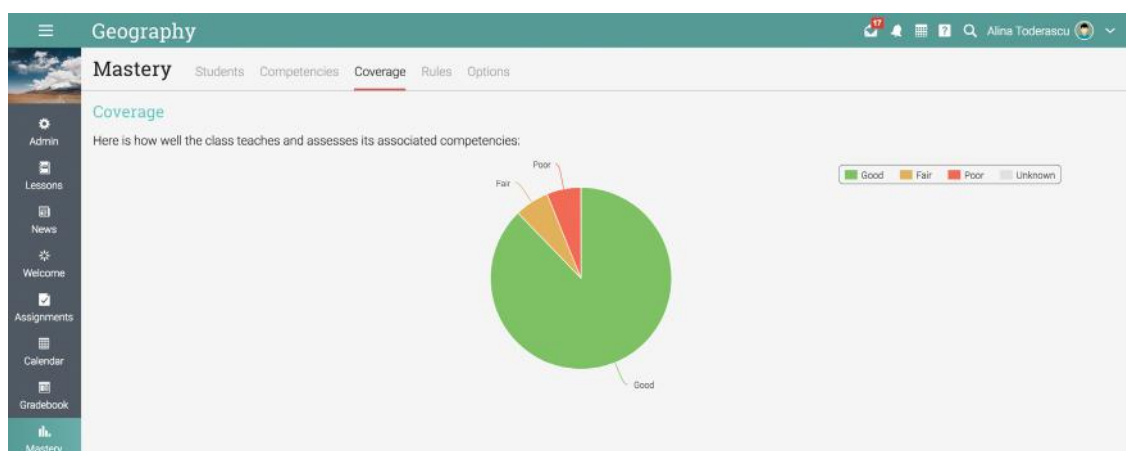
assignments with the competencies they should be assessing.



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.



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 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

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

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.

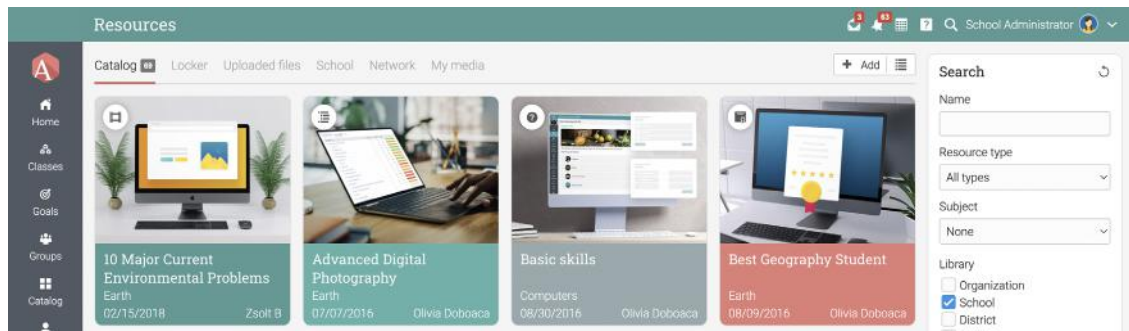
Add action ✕

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

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.



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

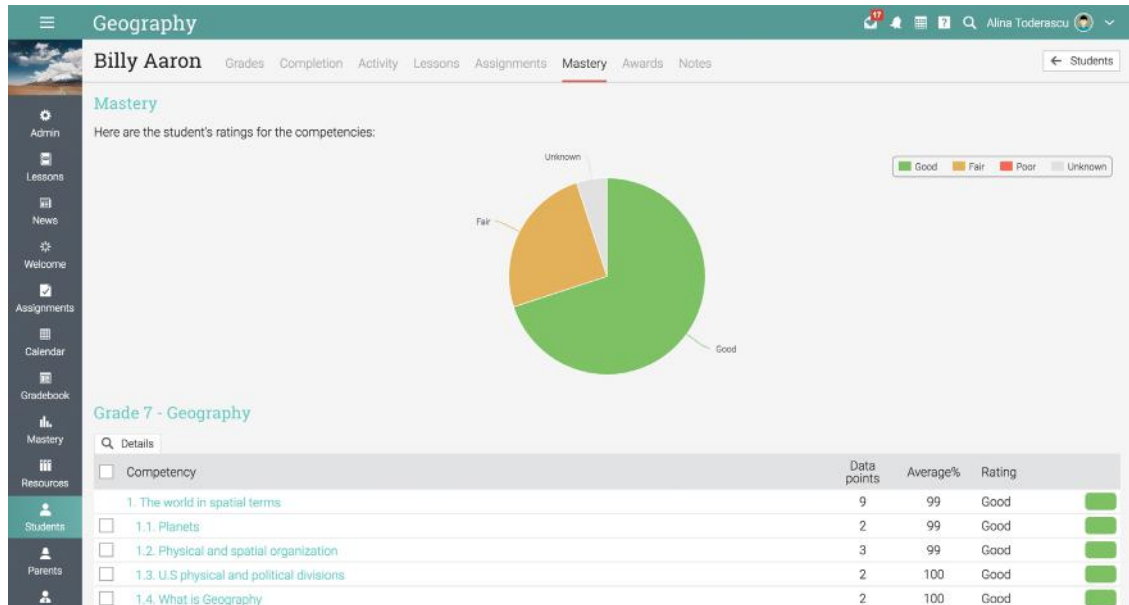
about the level of each competency and you can easily identify areas where students are doing well or where they are struggling.

Geography												
Mastery												
Students by last name												
Competencies		The world in spatial terms	Planets	Physical and spatial...	U.S physical and political...	What is Geography	Physical systems	Shapes of the Earth	US surface	Weather and climate	Meteorology	Phenomena
Code		1	1.1	1.2	1.3	1.4	2	2.1	2.2	3	3.1	3.2
Student	Average											
Aaron, Billy	87%	99%	99%	99%	100%	100%	93%	94%	92%	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%

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	
		C 62%	3	6		Dec 21, 2016	524 days ago		
		C+ 68%	3	10		Dec 21, 2016	655 days ago		
		B+ 82%	3	15		Jun 21, 2018	210 days ago		
		A- 87%	-	10		Jul 14, 2016	176 days ago		

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.

Sally Johnson Info Completed About Custom user information Edit

Classes

Class	Progress	Scores	Grade	Due	Mastery	Enrolled	Last visited	More
<input type="checkbox"/> Advanced Photography C2: 84			C+ 67%	-	-	Dec 3, 2018	49 days ago	
<input type="checkbox"/> Analog Photography			-	2	-	May 4, 2017	285 days ago	
<input type="checkbox"/> Artistic Photography C5: 62			-	-	-	May 4, 2017	49 days ago	
<input type="checkbox"/> Composition and Storytelling HB04: 90709			100 100%	-	-	Feb 29, 2016	162 days ago	
<input type="checkbox"/> Food and Product Photography C12: 56			-	-	-	May 3, 2017	119 days ago	
<input type="checkbox"/> How to use your DSLR			100 99%	2		Jan 25, 2016	8 days ago	
<input type="checkbox"/> Light in Photography C3: 55			F 0%	-	-	Sep 4, 2018	214 days ago	
<input type="checkbox"/> Nature photography			100 92%	1		Nov 22, 2018	61 days ago	
<input type="checkbox"/> Pet Photography			-	-	-	Oct 22, 2018	Never	

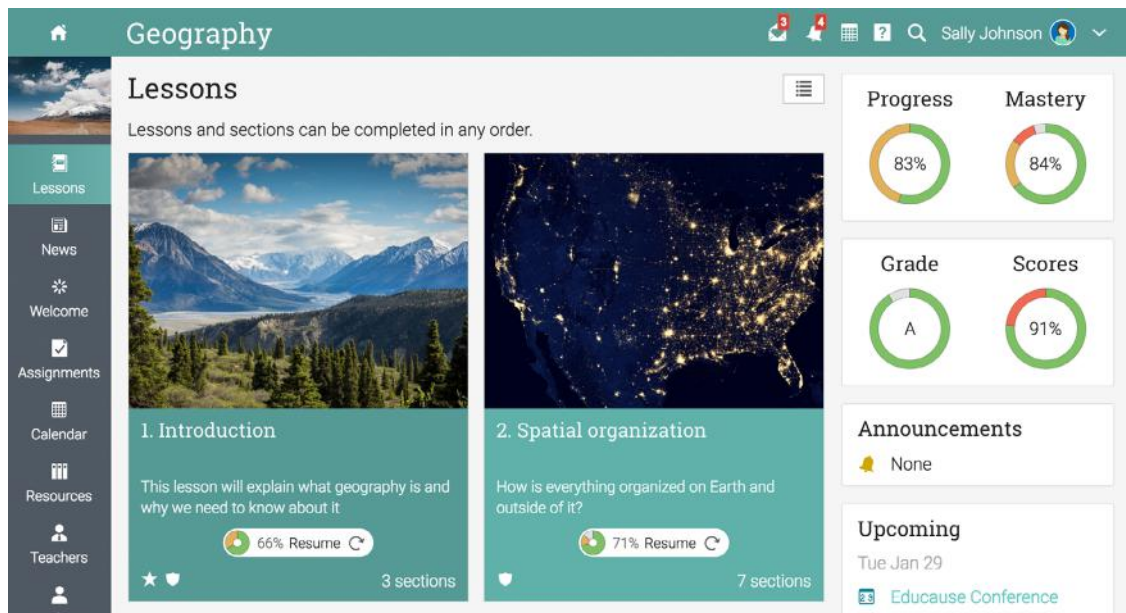
School
University of Arts Schools in CA

Communication
[Send message](#)
[Add friend](#)
[Ignore messages](#)
[Monitoring](#)
[Report](#)

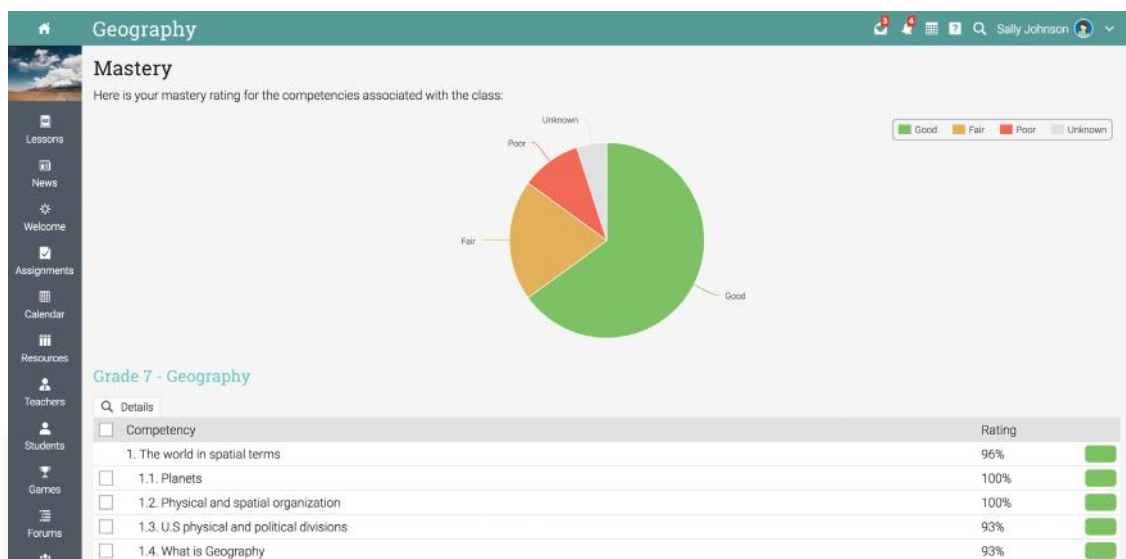
Account
 Type: Student
 Joined: Jan 25, 2016
 Last login: 5 days ago
[Log in as this user](#)
[Login credentials](#)
[Reset password](#)
[Resend login](#)
[Archive](#)

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.



About CYPHER Learning

CYPHER Learning is leading the necessary disruption of learning platforms to unleash human potential with modern learning.

CYPHER exists to ignite lifelong passions through personalized, engaging, and limitless learning experiences for all. We give teachers and professors more time to teach, build human connection into everything we do, and deliver tailored learning experiences that are meaningful and measurable.

Just the way modern learners expect.

The CYPHER platform is easy-to-use, beautifully designed, and infused with AI-powered technology. Every aspect beams thoughtful innovation and engineering that puts people first. Millions of users experience their “just in time, just for me, just the way I want it” approach in 50+ languages with the CYPHER award-winning platform.



To learn more about CYPHER Learning and our modern learning platform, visit us at

www.cypherlearning.com