



**XPRIZE  
CONNECT**

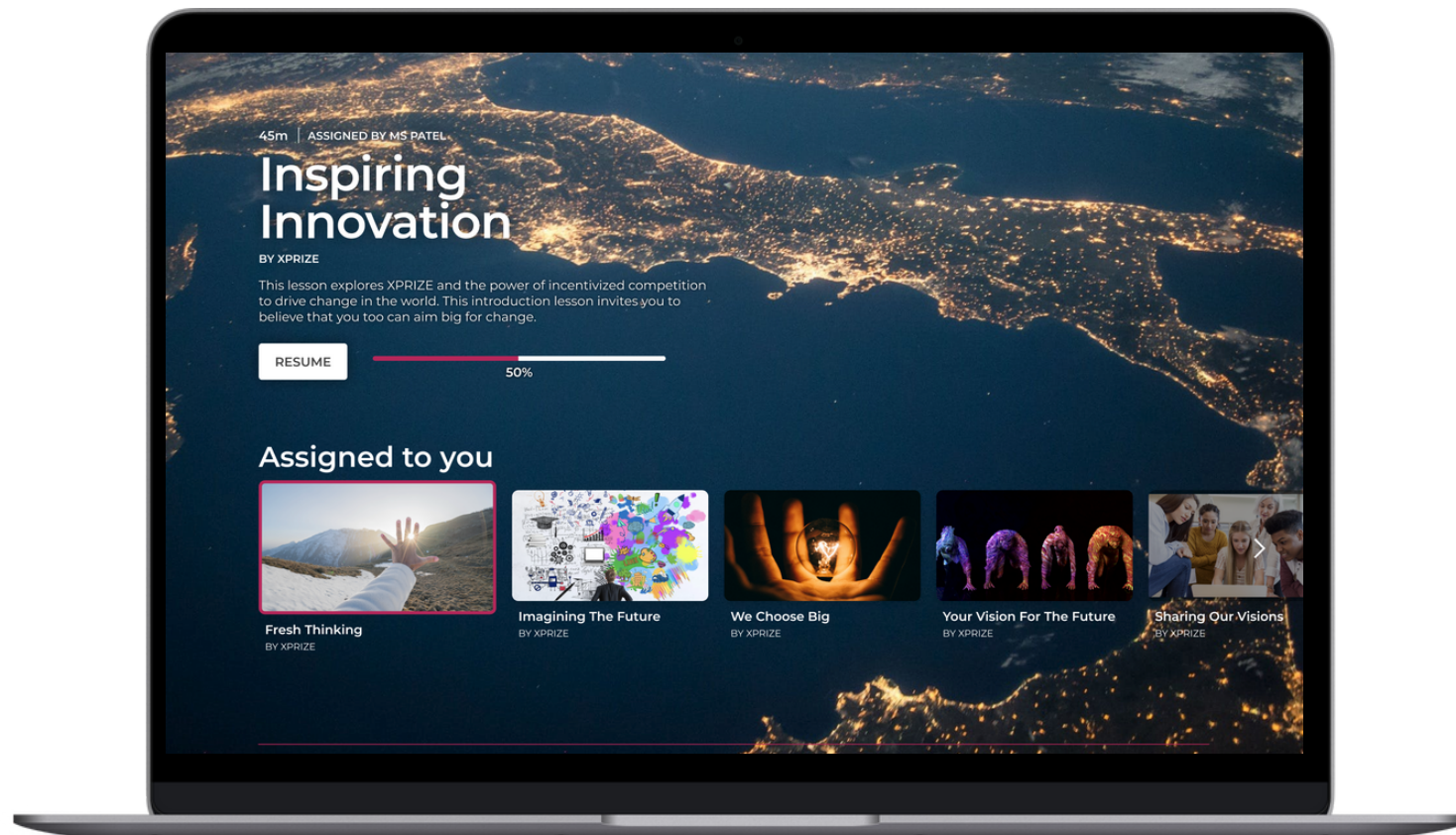
**DEFINE EXPERIENCE**  
**TEACHER GUIDE**

# Welcome Teachers!

This guide is designed for teachers to support their students taking the **XPRIZE Connect DEFINE Experience** lessons on the Symphony platform.

XPRIZE is a global, future-positive movement of over one million people and counting. In the words of the XPRIZE founder, Peter Diamandis, we're looking for "people who are not satisfied with the way things are and know it can be better."

We think your students can be those people - even more so with your support!





# The DEFINE Experience Teacher Guide

This guide consists of three sections:

## XPRIZE Connect DEFINE Experience Overview

### Supporting Your Students

- Establishing a learning community
- Encouraging student autonomy
- Classroom learning and engagement
- Working as a team

## DEFINE Experience Lesson Guide





# XPRIZE Connect DEFINE Experience Overview





# XPRIZE Connect DEFINE Experience Overview

XPRIZE Connect is a unique opportunity for next-gen innovators like your students to be empowered to identify the world's biggest challenges and to inspire others to collaborate and create lasting, positive change in their community and across the globe.

We are designing three experiences that mirror the work of XPRIZE: 1) **Defining** problems; 2) **Activating** communities to solve them; and then 3) **Innovating** to bring your students' thinking to develop a prize. The DEFINE Experience is the first of these three XPRIZE Connect experiences.

In the DEFINE Experience, your students build the skills necessary to define problems worth solving with a focus on curiosity, research, and problem-framing. They do this by going through a structured process we call Global Visioneering, which is built around five key Milestones:

- Visioning - Defining the world as you'd like it to be
- Targeting - Focusing on problems within problems
- Barriers & Breakthroughs - Identifying the more urgent parts of the problem
- Prize Sketch - Turning a problem into an opportunity
- Pitch Practice - Selling the vision and gaining buy-in from problem solvers

Several of our past and present XPRIZE competitions are the result of this structured Global Visioneering process.





# XPRIZE Connect DEFINE Experience Overview

At our annual Global Visioneering event, we bring together global experts, whom we call Brain Trusts, to work across a number of different areas - or domains - to create Prize Sketches that stand a chance to become the next XPRIZE competition.

Your students will be taken through the same process that the Brain Trusts embark on at the beginning of the DEFINE process. Working in groups, or individually, their ultimate goal will be to create their own Prize Sketch that proposes a competition to create the opportunity for breakthrough innovation.

Each of the five Milestones that your students will be progressing through consists of between two and four online lessons. Each lesson contains a range of supportive material to help scaffold the process, as well as substantive and enriching content that will assist in their ability to think outside of the box and beyond the constraints of their imaginations.

As students progress through each Milestone, they will work toward developing a clear and attractive prize concept brief - also known as a Prize Sketch Deck, which is a short presentation outlining the problem that they believe is worth solving that inspires intelligent and passionate people to develop cutting-edge solutions to make the world a better place!

Who knows...maybe their Prize Sketch will be chosen for the next XPRIZE competition!





# Supporting Your Students





## Establishing a learning community

Creating a sense of community is vital, even more so when your students will be spending time in an asynchronous learning environment. This requires intentional design and strategy.

It begins with contracting and setting expectations in the classroom before students enter the online environment. The goal is for students to feel valued and heard in a welcoming online space. Consider face-to-face discussions in the classroom before students begin their online journey where you collaboratively develop a class contract that outlines expectations for interactions, feedback, and support, reinforcing a culture of respect and empathy.

Regular, structured opportunities for face-to-face peer interaction promote collaboration. Implementing peer review sessions that are framed with clear guidelines can also ensure constructive, positive, and respectful collaborative experiences for students.

Finally, celebrating achievements, whether through highlighting excellent work, acknowledging progress, or marking course milestones, can also strengthen the sense of community and create shared moments of accomplishment.





# Establishing a learning community



## Creating a Classroom Contract

- Collaboratively define norms and expectations for group work and communication.
- State clear and specific expectations.
- Include guidelines for giving and receiving feedback constructively.
- Agree on consequences for not adhering to the contract.
- Regularly assess and adjust the contract if needed.

## Strategies for fostering collaboration

- Host regular small-group discussions.
- Assign roles within groups to ensure active participation and accountability.
- Implement peer evaluation sessions where students provide constructive feedback on each other's work.
- Encourage the use of digital collaborative tools (e.g., Google Docs, Miro boards) for brainstorming and project development.
- Hold regular reflection meetings where groups discuss what worked well and what could be improved.



# Encouraging student autonomy

Encouraging student autonomy is crucial for developing lifelong learners. In order to encourage this, ask students to set personal goals at the start of each Milestone.

While there are two formal surveys built into the course and several reflection activities within the lessons, it is helpful to provide students with other opportunities for self-assessment, allowing them to reflect on their learning journey and identify areas for improvement.

Regular check-ins and intention-setting can keep students accountable and motivated, ensuring they remain engaged and take ownership of their learning experience.



# Encouraging student autonomy



## Weekly In-class Check-ins

Below are examples of the kinds of questions you can use for check-ins throughout the course:

- What progress have you made towards your goals since our last check-in?
- Have you encountered any challenges recently? How have you addressed them?
- Can you share a key learning or insight from this section of the course?
- How has your group collaboration contributed to your understanding of the course material?
- Reflect on your most recent group activity. What went well, and what could be improved?
- Looking ahead, what are you most excited to learn about or explore in the coming sections?



## Classroom learning and engagement

Understanding the pressures of the curriculum and the precious nature of classroom time, it's worthwhile to view the support for this learning experience not as an additional burden but as an opportunity to enhance your students' learning experience.

By dedicating even a small segment of your class time to discuss and reflect on the course content, you're not only reinforcing key skills like critical thinking and collaboration but also showing your students that their interests and passion for addressing the challenges we face are valued.

This can be a powerful motivator, encouraging them to engage more deeply both inside and outside the classroom.



# Classroom learning and engagement



## Conversation and Reflection starters

One possibility for classroom engagement is to integrate brief discussions or reflections on the lesson content that complement the subject you teach. Such engagement can significantly enhance students' learning journey, making the educational experience more vibrant and interconnected.

In one of the lessons, **Imagining the Future**, students are encouraged to imagine a radically different world where innovation has led to a better future for all.

On the following page are example questions that teachers of various subjects can use to spark short reflections or discussions that connect the learning in this particular lesson on imaging the future with their school curriculum. The same idea could be applied to other lessons.



# Classroom learning and engagement

## English/Language Arts

Why do you think stories about the future often focus on technology and societal changes? Can writing and discussing these stories help us shape the future we actually want to live in?

## Science

Can you think of a cool gadget or technology from a movie or book that doesn't exist yet but should? How could we use science to make it real?

## Mathematics

Can any of the major challenges facing our world be solved without maths? Think about problems like climate change or space travel.

## History

Many great leaders had to first imagine a different world. Who is a historical figure you admire for their vision of the future, and how did they work to make it a reality?

## Art

How can creating art about the future help us actually change the future? Think of an art project that could inspire people to imagine a better world.

## Physical Education

How do you think advances in technology will change the way we exercise or play sports in the future? Can you imagine a futuristic fitness routine or sport?

## Music

Music often reflects the times in which it was created. Can you think of a song that feels like it could be from the future? What makes it sound that way, and how does it make you feel about the future?

## Geography

In a future where we've mastered the art of predicting and mitigating natural disasters thanks to advanced technology, how would this change the way we live and where we choose to build our homes? Consider the role of geographers in creating a world where people are safer from natural threats.



## Working as a team

While students take the lessons individually and complete most of the activities on their own, the deliverables (the worksheets and templates they need to download and complete) are best completed in teams. For sure, students can do the whole course on their own and create a Prize Sketches by themselves, we encourage students to work together in teams and benefit from the power of collaboration. Ideally, the class should be divided into groups.

During the course, students will identify a pressing issue they're passionate about and work together to define the problem needing a solution. The course's ultimate goal is for each group to develop a Prize Sketch, similar to an XPRIZE, aimed at mobilising innovative minds towards creating solutions for a better world.

Teams can be assigned or chosen at the start of the course or when they reach the lesson, **Choose Big**, where they select the issue they wish to address.

While the ideal is for teams to meet at least once a week, this may not always be possible. The course overview identifies lessons that require “Team Meets” in order to complete the lesson deliverable, and suggests other points in the course where a “Team Meet” may be beneficial. We also encourage students to collaborate in the virtual space using a platform of their choice.





# Working as a team



## Weekly Team Meets

The Team Meets can happen in-person or online depending on what the groups decide and the time made available in class or at school for these meetings.

Below is a suggested approach that students can follow to conduct effective Team Meets:

1. Share what we've done so far.
2. Make a list of everything we need to do for our Milestone task.
3. Decide who's going to do what based on what we're good at and what we like.
4. Set deadlines for when each thing needs to be done. Talk about what we need (like books or websites) and how we'll get it.
5. Talk about any problems and figure out how to solve them.
6. Make sure we're all doing what we agreed to do.
7. Decide what needs to be done next.



# The DEFINE Experience Lesson Overview






# The DEFINE Experience Lesson Overview

The final section of the guide presents the order of the lessons as well as information for the teacher about the lessons. The 18 lessons need to be assigned on the Symphony Platform in this order.

The weekly schedule is meant as a guide and a way for students to pace themselves through the course


Each lesson is numbered so that all 18 lessons can be assigned in order for students to complete



## MILESTONE 2: VISION WITHIN VISIONS

### WEEK 5

Students will...




**XP08 Getting the Whole Picture**

In this lesson, students explore the concept of systems thinking, focusing particularly on causality. Using a real-life historical case as an example, students are invited to think more deeply and apply the Iceberg model of systems thinking. Once they have done this, they use the Iceberg Model to analyse an issue that they hope their XPRIZE competition will address.

- Understand what systems thinking means and how it will be useful to you
- Explore causality in systems thinking
- Explore the Iceberg Model of systems thinking

Deliverables	Team Meets
Nothing to complete as a team	Optional team meeting



**XP09 Parts of the Whole**

In this lesson, students move onto the next part of the Visioneering process which is where they break down their Vision Statements into smaller components in order to identify themes or targets that are essential for their broader vision to be realised.

- Identify key elements within your Vision Statement
- Analyse how these elements can be identified and collected into themes
- Understand that these themes are targets that can lead to goals toward your vision

Deliverables	Team Meets
Vision Element Identification worksheet	X

Indicates the team deliverables tied to specific lessons. This is useful for teachers to ensure students are meeting the course requirements

Indicates that students are not required to meet in their teams

The X indicates that students should aim to meet in their teams

# MILESTONE 0: WELCOME TO XPRIZE Connect



## WEEK 1

Students will...



- Learn about XPRIZE and its mission
- Understand what incentivised competition is and how it is used to inspire innovation and create positive change


This lesson encourages students to imagine a better future with a world filled with endless possibilities - and then encourages them to be part of the XPRIZE journey to make that happen. Students learn about the history of the XPRIZE foundation, as well as its mission and values, while also exploring what it takes for an XPRIZE to be launched.



- Learn about the key features of XPRIZE Connect
- Explore XPRIZE's domains
- Understand the concept of Visioneering and its importance in problem-solving and innovation

This lesson introduces students to the XPRIZE Connect DEFINE Experience, the adaptation of XPRIZE for young people worldwide. They learn about the different XPRIZE domains and about the main steps in the XPRIZE Visioneering process that they will follow as they progress in developing a potential future XPRIZE.

Deliverables	Team Meets
Nothing to complete as a team	Optional team meeting

Deliverables	Team Meets
Nothing to complete as a team	



# MILESTONE 1: VISION MAPS

## WEEK 2

Students will...



- Explore five ways to strengthen and harness the power of imagination
- Understand the importance of imagination in creating a vision for the future


This lesson uses an article on the power of imagination as inspiration to encourage students to dare to dream of a radically different world where innovation has led to a better future for all. Students explore different existing XPRIZES and learn a technique to help spark imagination, a daily imagination ritual.

Deliverables	Team Meets
Nothing to complete as a team	Optional team meeting



- Explore the concept of 'echo chambers' and their impact on how we imagine the future
- Reconsider the assumptions you may have about the future
- Conduct a 'future analysis' of an alternative vision of the future
- Learn about Afrofuturism and how it can impact our visions of the future and the solutions we can create

This lesson invites students to challenge conventions and avoid 'echo chambers' when thinking about their visions for the future. Using Afrofuturism as a lens through which to explore alternate realities, students are encouraged to be creative when thinking about innovation and to experiment with their own imagination.

Deliverables	Team Meets
Nothing to complete as a team	

# MILESTONE 1: VISION MAPS

## WEEK 3

Students will...

### XP05 We Choose Big



In this lesson, students explore four of the XPRIZE domains in greater detail and learn about existing XPRIZE competitions in each of the domains. Using this as inspiration, they are then invited to choose a domain around which to focus their XPRIZE Connect competition.

- Explore four of the XPRIZE Domains and understand the visions for each
- Choose a domain that you are most passionate about

Deliverables	Team Meets
<div>Team needs to choose a domain</div>	<div>✕</div>

### XP06 Your Vision for the Future



In this lesson, students imagine a future in which their vision has become a reality by going through a staged process of Vision Mapping that lies at the foundation of the XPRIZE Visioneering process.

- Define a clear problem or opportunity using the Vision Mapping process
- Imagine a future in which your vision has become a reality through completing "Headliners" and "Stepping Stones" activities

Deliverables	Team Meets
<div>Headliners &amp; Stepping Stones worksheet</div>	<div>✕</div>



## WEEK 4

Students will...



- Prepare a Vision Statement
- Give and receive feedback on your Vision Statements
- Submit a final Vision Statement
- Reflect on the Visioneering process

This lesson guides students through the process of writing up a Vision Statement, a central component of the Visioneering process. They explore a worked example of a Vision Statement and respond to a series of questions which help them draft a clear statement of their own.

Deliverables	Team Meets
<div>Vision Statement</div>	<div>✕</div>

# MILESTONE 2: VISION WITHIN VISIONS

## WEEK 5

Students will...



In this lesson, students explore the concept of systems thinking, focusing particularly on causality. Using a real-life historical case as an example, students are invited to think more deeply and apply the Iceberg model of systems thinking. Once they have done this, they use the Iceberg Model to analyse an issue that they hope their XPRIZE competition will address.


- Understand what systems thinking means and how it will be useful to you
- Explore causality in systems thinking
- Explore the Iceberg Model of systems thinking

Deliverables	Team Meets
Nothing to complete as a team	Optional team meeting



In this lesson, students move onto the next part of the Visioneering process which is where they break down their Vision Statements into smaller components in order to identify themes or targets that are essential for their broader vision to be realised.

- Identify key elements within your Vision Statement
- Analyse how these elements can be identified and collected into themes
- Understand that these themes are targets that can lead to goals toward your vision

Deliverables	Team Meets
Vision Element Identification worksheet	



# MILESTONE 2: VISION WITHIN VISIONS

## WEEK 6

Students will...



This lesson invites students to consider the importance of empathy when considering what the future might look like and introduces them to the idea of targeted universalism. They then apply what they have learnt to their own vision and generate solutions to make their imagined future more inclusive.


- Understand empathy by considering diverse perspectives and needs.
- Understand the concept of Targeted Universalism
- Recognise the importance of inclusive thinking in innovation and problem-solving
- Practise applying the principles of Targeted Universalism to envision a more equitable future

Deliverables	Team Meets
Nothing to complete as a team	Optional team meeting



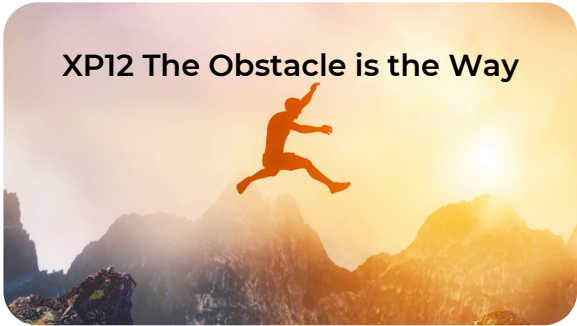
In this lesson, students explore the needs and interests of different stakeholders - people who are affected by their vision - by conducting a Stakeholder Analysis. This helps them build a broader picture of the impact that their vision will have on others.

- Identify and define key stakeholders in your vision
- Learn about Empathy Maps and how they can help you understand stakeholders
- Create Stakeholder Personas based on your personal vision

Deliverables	Team Meets
Vision Stakeholders Identification worksheet	

## WEEK 7

Students will...



Through the use of a worked example, this lesson guides students through the process of using the PESTEL framework as a way to identify potential barriers to the targets embedded in their vision elements becoming a reality.

- Learn about PESTEL analysis
- Apply the PESTEL framework to assess potential barriers to a vision element's target being reached

Deliverables	Team Meets
<div>PESTEL Analysis 1</div>	<div>X</div>



# MILESTONE 3: BARRIERS AND BREAKTHROUGHS


## WEEK 8

Students will...



This lesson encourages students to think about the assumptions that underpin the barriers that they identified in their PESTEL Analysis, and then teaches them the technique of assumption targeting in order to transform the barriers into breakthroughs.

- Learn about how to challenge assumptions
- Use the technique of assumption targeting to transform our barriers into breakthroughs

Deliverables	Team Meets
<div>PESTEL Analysis 2</div>	<div></div>



In this lesson, students learn how to use First Principles thinking as a tool to challenge assumptions and overcome obstacles and apply this to their vision for the future. They are then introduced to the concept of mental models, focusing specifically on confirmation bias and ways to challenge it.

- Learn about First Principles thinking
- Use First Principles thinking to brainstorm innovative solutions for the future
- Explore mental models
- Learn about confirmation bias as a mental model and explore strategies to overcome it

Deliverables	Team Meets
<div>Nothing to complete as a team</div>	<div>Optional team meeting</div>

# MILESTONE 4: CREATING YOUR PRIZE SKETCH

## WEEK 9

Students will...



In this lesson, students are invited to pause and reflect on their progress through the XPRIZE Connect DEFINE Experience, looking at some of the highlights and some of the challenges they've faced. They are then asked to identify personal goals for the next stage of the Visioneering process, and to share some ways that they hope to achieve them.


- Remind ourselves of the XPRIZE mission and vision
- Reflect on our progress so far in the DEFINE Experience Identify goals for the future

Deliverables	Team Meets
Nothing to complete as a team	Optional team meeting



In this lesson, students explore some examples of Prize Sketch Decks before completing their own deck inspired by their vision for the future. They get feedback on their work from their peers before uploading a final version of their Prize Sketch Deck, forms the foundation of their final project - pitching their XPRIZE in the next milestone.

- Explore an example of a Prize Sketch Deck
- Create a Prize Sketch Deck

Deliverables	Team Meets
Prize Sketch Deck	



# MILESTONE 5: PITCH PRACTICE



## WEEK 10

Students will...



Students are introduced to the concept of a pitch in this lesson and learn what makes a successful pitch work by exploring its various components. They then practise their pitches using their Prize Sketch Decks to get feedback and record a final version for the teacher to review.

- Understand the concept of a pitch
- Learn the components of an effective XPRIZE pitch
- Enhance public speaking and presentation skills
- Create a clear, compelling Prize Sketch Pitch

Deliverables	Team Meets
	



This lesson begins with an inspiring video, before inviting students to share their Prize Sketch Pitch with their peers as part of a celebration of everything they have learnt and achieved over the course of the XPRIZE Connect DEFINE Experience.

- Share their Prize Sketch Pitch video
- Give and receive affirming feedback on their ideas
- Think about how they get the Prize Sketch Pitches heard more widely

Deliverables	Team Meets
