

## تم تحميل هذا الملف من موقع المناهج الإماراتية



## دليل الطالب التعلم القائم على المشاريع والتقييم منهج انسابير

موقع المناهج ← المناهج الإماراتية ← الصف الثامن ← علوم ← الفصل الثاني ← كتب للطالب ← الملف

تاريخ إضافة الملف على موقع المناهج: 11-02-2025 15:46:47

ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل  
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي للمدرس

المزيد من مادة  
علوم:

## التواصل الاجتماعي بحسب الصف الثامن



صفحة المناهج  
الإماراتية على  
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

## المزيد من الملفات بحسب الصف الثامن والمادة علوم في الفصل الثاني

عرض بوربوينت لدرس الأدوات البصرية من وحدة المرايا والعدسات - الجزء الرابع

1

عرض بوربوينت لدرس الأدوات البصرية من وحدة المرايا والعدسات - الجزء الثالث

2

عرض بوربوينت لدرس الأدوات البصرية من وحدة المرايا والعدسات - الجزء الثاني

3

عرض بوربوينت لدرس الأدوات البصرية من وحدة المرايا والعدسات

4

عرض بوربوينت حول درس المرايا والعدسات

5



UNITED ARAB EMIRATES  
MINISTRY OF EDUCATION

# Student Guidebook

Project Based Learning and Assessment

2025

2024

Name:

Grade, Stream, Section:

Subject:

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2025

2024

# Introduction

## Welcome to Project-Based Learning and Assessment (PBLA)

Project-based Learning and Assessment (PBLA) is a way of learning by doing! It is a different way of learning and getting grades than taking tests. It helps us work on solving real world problems, learn about big issues and think of new ways to make a difference. Working on projects also helps us learn important skills.

### Through PBLA, I can:

- explore real-world problems
- build important skills
- work well in a team
- be innovative
- show what I have learned

### I promise to:

- connect our projects to our community
- respect our classmates' different backgrounds and skills
- understand what our projects are about and how they will be graded
- share ideas with others
- appreciate what everyone brings to our projects
- listen to our teachers' feedback and use it to learn and get better

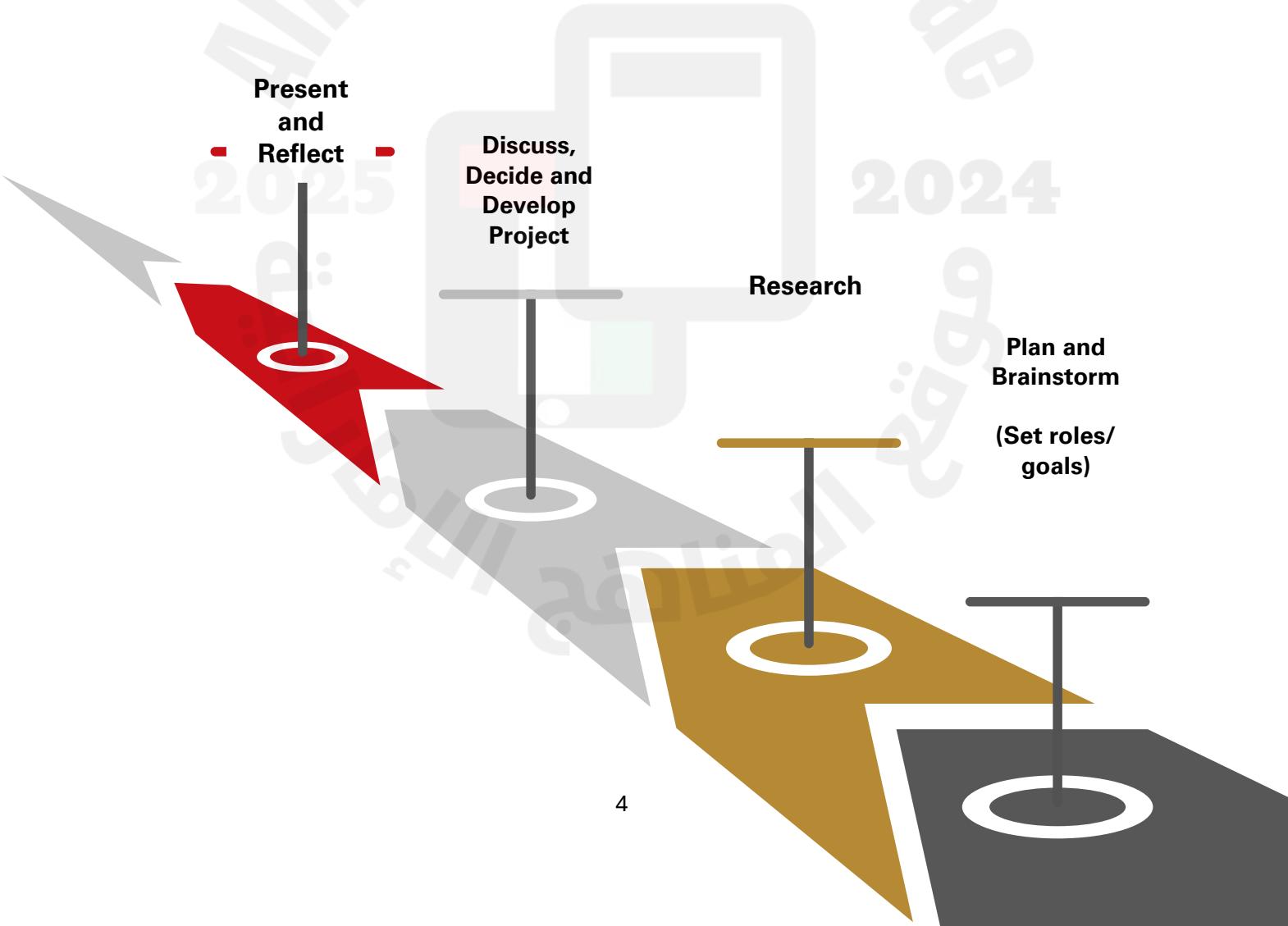
This guide will help me with my PBLA journey. It tells me what I need to do to get good scores and show my best work in PBLA. I am ready to work hard, create, and make a positive difference!

# Brief description of the Project

**Our project is about:** creating a functional pinhole camera, exploring the fascinating principles of light and optics. My goal is to understand how light travels, reflects, and refracts to form images, and to investigate the science behind how simple devices like pinhole cameras work. I will conduct experiments to observe how the size of the pinhole, the placement of mirrors, and the use of lenses affect the clarity and quality of the image.

**Our group will produce:** a fully functional pinhole camera and present our findings with clear explanations of light behavior and image formation in a presentation. We will discuss how understanding the principles of optics has contributed to technological advancements that enhance our lives today.

# My learning journey of the Project



# Project Overview

Subject		Science
Project title	Shaping Light: The Science of a Pinhole Camera	
Project objective	The objective of this project is to explore the principles of light and optics by designing, building, and testing a functional pinhole camera. You will apply their understanding of light behavior, including how it travels, reflects, and refracts, to create a device that captures and displays images. This would allow you to reflect on the real-world applications of light and optics in photography, technology, and everyday life.	
Steps for Success		
<b>Brainstorm Ideas</b> <ul style="list-style-type: none"><li>• What shape and size should the pinhole camera be for optimal performance?</li><li>• How can we ensure that no unwanted light enters your pinhole camera?</li><li>• What materials will best block light while keeping the camera sturdy?</li><li>• What might happen if the pinhole is too large or too small?</li><li>• How can adding a mirror inside your camera change the direction of light or the position of the image?</li><li>• What adjustments might you need to make if the image is blurry or unclear?</li></ul>		
<b>Choose Roles</b> <p>Potential roles for students:</p> <ol style="list-style-type: none"><li>1. <b>Materials Manager:</b> Sources and organizes necessary materials, oversees project timelines, delegates tasks, and ensures everyone stays on track.</li><li>2. <b>Research Specialist:</b> Researches the science behind pinhole cameras and provides technical advice.</li><li>3. <b>Recorder:</b> Keeps a detailed record of the project design.</li><li>4. <b>Presenter:</b> Creates and delivers final presentations, including visuals and a script.</li></ol>		

## Materials We Might Need

The following are suggested materials to choose from:

1. A small rectangular cardboard box
2. Aluminum foil
3. Sewing needle/sharp pin
4. Tape or glue
5. Black paper
6. Tracing or wax paper (screen)
7. Ruler
8. Scissors
9. Pencil
10. Small mirrors
11. Convex lenses or magnifying glass
12. Light source (flashlight)



# Roles and Responsibilities

## My Group Project Roles and Responsibilities

NAME OF STUDENTS	ROLES AND RESPONSIBILITIES
2025	2024

I know that AI tools, like ChatGPT, can help me learn, but I will use them positively.

- My work will show what I know, what I can do, and how hard I worked.
- If I include any ideas from AI, I will be honest and let people know.

I can use AI to:

- get guidance
- brainstorm ideas
- check our understanding



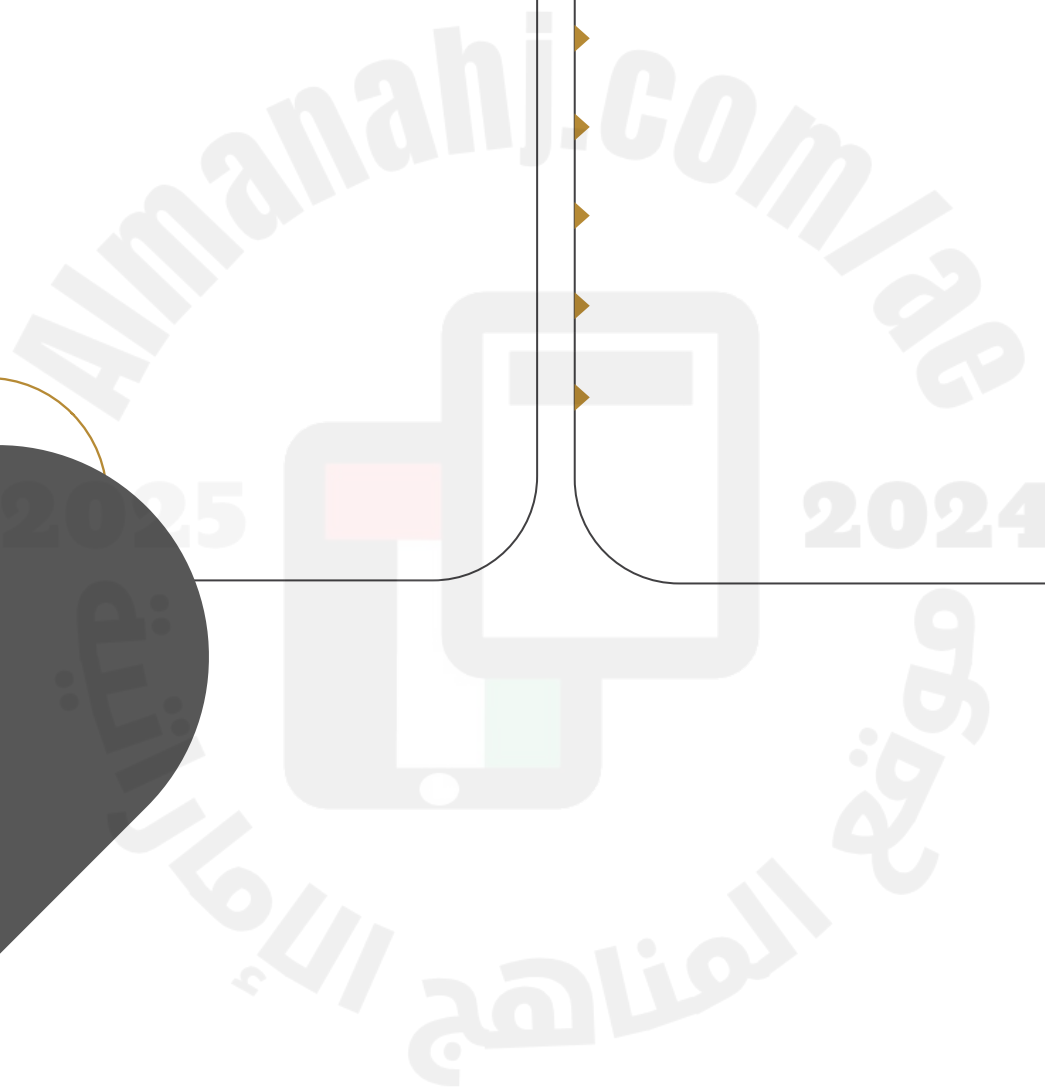
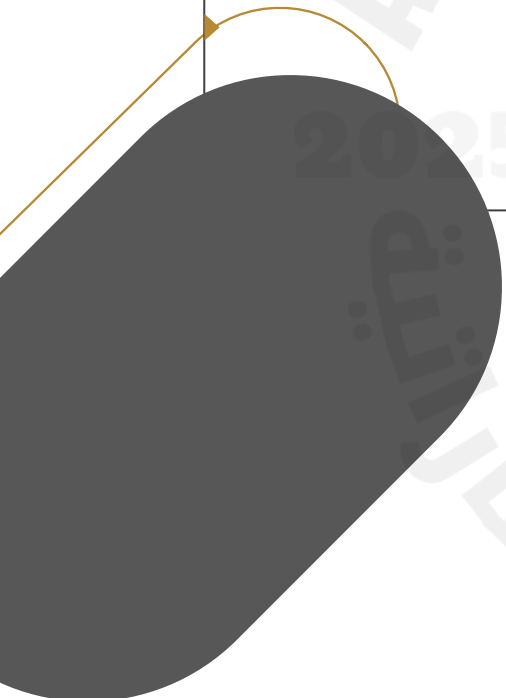

# Roles and Responsibilities

## MY GOALS

**What do I want to do?  
How will I use my time in  
the best way?**



**What do I want to  
learn more about?**



# Milestones 1 and 2

## Milestone 1 Self-regulation and engagement

### Thinking about my learning:

Description: I am excited and ready for this work, and I can set goals for myself.

Select your level:	<input type="checkbox"/> Beginning	<input type="checkbox"/> Developing	<input type="checkbox"/> Acquired
Self-regulation and engagement	<p>I find it hard to do this project work.</p> <p>I find it hard to set my goals.</p>	<p>I feel ready for the project and feel like I will try my best.</p> <p>I can think of a goal, but I need some help to understand the idea more.</p>	<p>I am excited about the project, and I am ready to work hard on it.</p> <p>I have a good idea of what learning goals I want to achieve.</p>
Action Plan for Improvement	<p>Action:</p> 		



## Thinking about my learning:

Description: I can find out more about the topic. I can ask questions to help us think about it.

Select your level:	<input type="checkbox"/> Beginning	<input type="checkbox"/> Developing	<input type="checkbox"/> Acquired
Research & Inquiry	<p>I found it hard to find reliable sources of information.</p> <p>I found it hard to think of research questions.</p>	<p>I found some good information from my sources.</p> <p>I asked some good questions to help us think about the system</p>	<p>I found a lot of reliable sources. I could connect ideas between them.</p> <p>I asked big questions which made the group really think hard.</p>
Action Plan for Improvement	Action:		

**Milestone 1: Collaboration, Communication and Contribution / Problem-Solving & Critical Thinking**

**What did we discuss:**

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**What did we decide on:**

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## Thinking about my learning:

### 1) Collaboration, Communication & Contribution

Description: I discuss well in my group and help organize our tasks.

### 2) Problem-solving & Critical thinking

Description: I can see problems, find solutions, and change as needed.

Select your level:	<input type="checkbox"/> Beginning	<input type="checkbox"/> Developing	<input type="checkbox"/> Acquired
<b>Collaboration, Communication &amp; Contribution</b>	I only spoke a little about the project.	I gave some ideas to the group and helped to come to decisions.	I gave many original ideas and I helped organize our work.
Select your level:	<input type="checkbox"/> Beginning	<input type="checkbox"/> Developing	<input type="checkbox"/> Acquired
<b>Problem-solving Critical Thinking</b>	I found it hard to solve the problems.  My teammates made all the decisions.	I could see some of the problems and I tried to think of ways to fix them.  Sometimes, I need help for making decisions.	I thought about different and original solutions and shared them with my team.
<b>Action Plan for Improvement</b>	Action:		

## Milestone 2: Presentation and Reflection

**What will be my role in the presentation:**

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**What have I learnt:**

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**How does the project connect to the real world:**

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## Thinking about my learning

1) Presentation Skills: I can present well to my classmates			
Select your level:	<input type="checkbox"/> Beginning	<input type="checkbox"/> Developing	<input type="checkbox"/> Acquired
Presentation Skills	I find it hard to talk in front of people.	I find it easy to talk to the class and they could understand me.	I find it very easy, and I feel confident talking to the class.
	I find it hard to explain what I learnt.	I find it easy to say something about what I learnt, and how I solved problems in the work.	I find it very easy to describe how we fixed problems and what I learnt.
2) Innovation: We used new and original ideas and our presentation was creative			
Select your level:	<input type="checkbox"/> Beginning	<input type="checkbox"/> Developing	<input type="checkbox"/> Acquired
Innovation	We needed ideas to make our presentation more original.	I thought we had some new and original ideas.	We had very creative ideas.
		We had some new and interesting ways to do our presentation.	We presented our ideas in a really exciting and different way.
3) Content/Topic Mastery: I understand and can explain this topic.			
Select your level:	<input type="checkbox"/> Beginning	<input type="checkbox"/> Developing	<input type="checkbox"/> Acquired
Content/Topic Mastery	I only know a few simple things about this topic.	I understood most of what the class said on the topic.	I feel like I understand everything on this topic and I can explain it to people.
	I found it hard to understand the ideas that were said	I need some things explaining more.	
4) Application of Knowledge/Skills: I connect what I've learned to real-world situations.			
Select your level:	<input type="checkbox"/> Beginning	<input type="checkbox"/> Developing	<input type="checkbox"/> Acquired
Application of Knowledge/Skills	I found it hard to understand how this will work outside the classroom.	I can think of some examples of how this will work outside the classroom.	I feel like I have really good ideas about how this will help people outside the classroom.
		I need some help to think of more ideas.	
Action Plan for Improvement	Action:		



# My Final Reflection

What did I learn and how did I improve?

<p>What was good about my project?</p>	 	<p>What can I make better in my project?</p>
<p>What other skills have I improved? What skills do I still need to work on (e.g. time management, confidence, etc.)?</p>	 	<p>What have I learnt doing the project?</p>
<p>Did I achieve my role? Am I proud of the work I did?</p>	 	<p>Write a thank you note to yourself</p>