

Lesson plan

Name of the student teacher: Deepika.M

Standard: 8th

Subject: Physics

Topic: Why multiple images are formed when we sit in between the two mirrors?

Content Analysis.

- Multiple images are formed based on the angle of inclination how the mirror is placed in which direction it is placed.

Instructional objectives:

The pupil

- Define the multiple reflection of light.
- Tells the formula for finding the multiple reflection..

Task analysis.

Define the multiple reflection

- Recognizes reflection of light
- Identifies the angle between the two mirrors
- Identifies images formed in the mirror
- Tells formula of finding multiple reflection
- Defines multiple reflection

TLM: powerpoint presentation, images, table slide.

content	Teachers activity	Pupil/students activity
Engage	Greets the students	Students will greet teacher
Meaning of light and reflection of light	Today , we will learn an interesting topic in Physics. I will ask questions raise your hands who knows answers don't give mass answers. - What is light? - How does light propagates? - Now observe the image and tell me what you observe in the given image? - Now tell me what you observe ?	Ok Mam Light is a form of energy. Straight line Yes mam Reflection of image in the water.

	• Ok What is reflection of light? • Observe this when a ray of light is incident on any mirror surface what happen? • Ok now tell me when a ray of light strike the mirror surface what is that ray is called as ? • After striking the mirror the ray gets reflected what is that ray is called as? • Now observe this ray which is perpendicular to the point of incidence what that ray is called as ? • Now tell me the angle made between normal and incident ray is called as ? • The angle made between normal and reflected ray is called as ? • If you measure both the angles are equal. • Now listen to me where you see the multiple images in your daily life ? • Yes correct but my question is “why we see multiple images when we sit in between the mirrors ?”	No response It get reflected Incident Ray Reflected Ray Normal Angle of incidence Angle of Reflection $i = r$ Barber Shop mam No response

Statement of Aim: in today class we shall learn “Why we see the multiple images when we sit in between the two mirrors ?”

content	I.O	Teachers activity				Pupils activity	Evaluate
Develop ment stage		Students we will learn this through a group activity .				Ok mam	
Definition of regular reflection	The pupils defines regular reflection	form a group of 3 members each and I will show you images observe disuss among yourself and tell me which object it is .and how the surfaces of that material and how the incident ray and reflected ray in the image.					
		Ex:1 Now tell me which is first image (show the slide)					
		- What type of surface? - How the incident Ray is ? - How the reflected Ray is ?				Mirror	
						smooth	
						Parallel	
						Parallel	
		Ex:2 Now tell me which is second image (show the slide)					
		- What type of surface? - How the incident Ray is ? - How the reflected Ray is ?					
		Ex:3 Now tell me which is third image (show the slide)					
		- What type of surface? - How the incident Ray is ? - How the reflected Ray is ?					
		obj ect s	Type of surface	Inciden t ray	Reflect ed ray		

		<table><tr><td>mir ror</td><td>smooth</td><td>parallel</td><td>parallel</td></tr><tr><td>Ste el sur fac e</td><td>smooth</td><td>parallel</td><td>parallel</td></tr><tr><td>Br on ze</td><td>smooth</td><td>parallel</td><td>parallel</td></tr></table>	mir ror	smooth	parallel	parallel	Ste el sur fac e	smooth	parallel	parallel	Br on ze	smooth	parallel	parallel		
mir ror	smooth	parallel	parallel													
Ste el sur fac e	smooth	parallel	parallel													
Br on ze	smooth	parallel	parallel													
		What are the common aspects you are observing? What do you call for such type of reflection ? It is called as Regular Reflection . Now tell me what is regular reflection ? Now be in a group again listen to my instruction carefully now I will so show you some images you have to tell how the mirror is placed and number of images obtained and angle of inclination ok. observe carefully and tell me what you observe discuss in the group and tell me k . Ex:1 Now tell me (show the slide) • How many mirror was there? • What is the angle of	The object which are smooth surface where incident ray is parallel to reflected ray . No response The object which are smooth surface where incident ray is parallel to reflected ray . Ok mam two mirror 90 3 two mirror	Pupil defines regular reflection												

Definition
of
multiple
reflection

- inclination?
- How many number of images is formed?

60
5

Ex:2 Now tell me (show the slide)

- How many mirror was there?
- What is the angle of inclination?
- How many number of images is formed?

two mirror
45
7

Ex:3 Now tell me (show the slide)

- How many mirror was there?
- What is the angle of inclination?
- How many number of images is formed?

sl. no	examples	Angle of inclination	No of images

1	Two mirror	90	3
2	Two mirror	60	5
3	Two mirror	45	7

The multiple images are formed based on the angle of inclination

Now observe and tell me what you can conclude by seeing the table ?

Excellent answer observe the video you will get the clear idea

There is a formula for finding the images
Number of images = $360 / (\text{angle between the mirror}) - 1$

Now tell me Why we see multiple images when we sit in front of two mirrors ?

Because of angle of inclination.

define multiple reflection

state the formula for multiple reflection

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