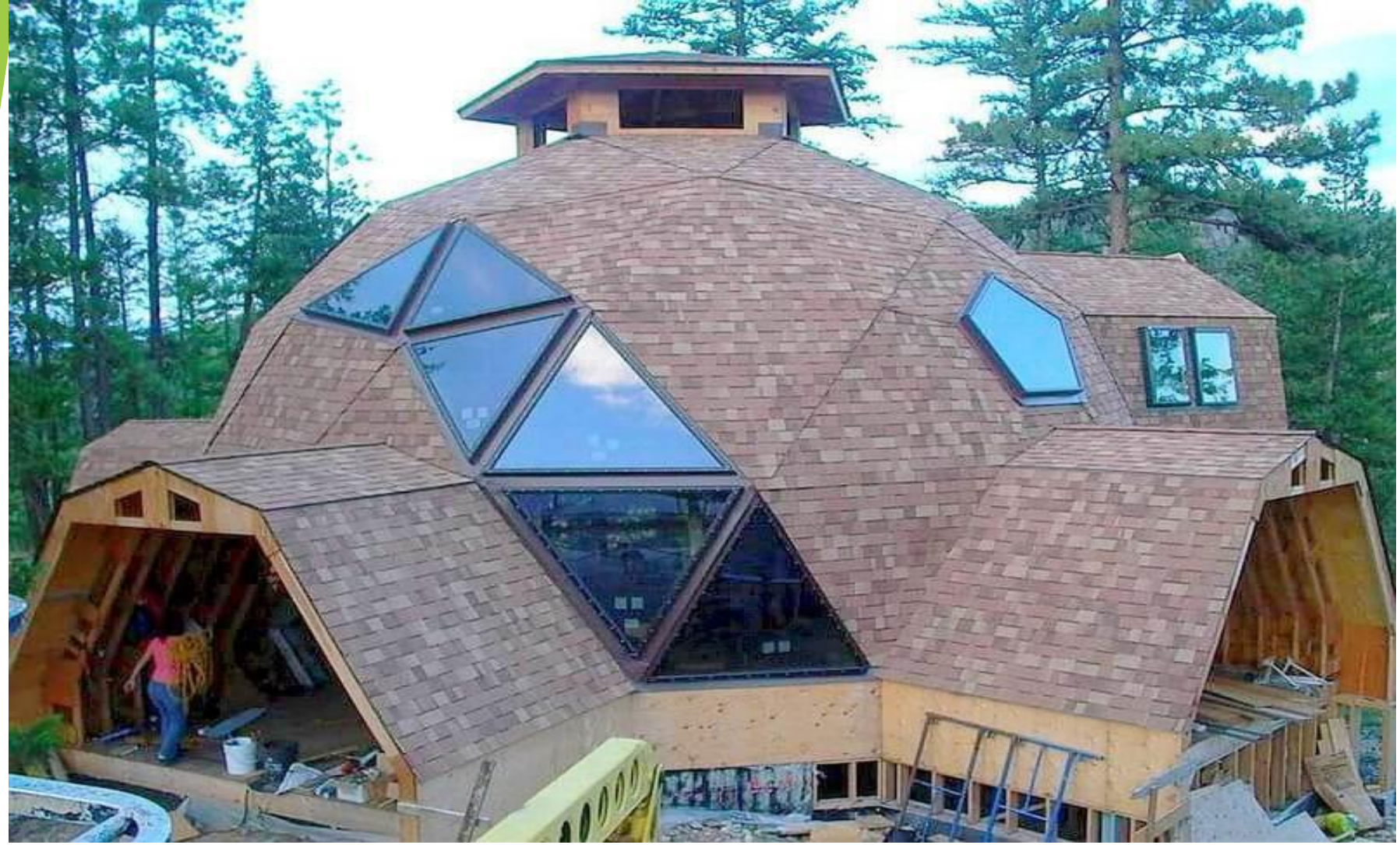
# Engage

Do you guys remember the farmer's request that I said in the last lesson?

Yes,the farmer wants to improve the exterior of the house. He wants to make the exterior walls invisible, why?
What do we offer him to make walls out of for this?
What types of mirrors did we learn in the last lesson?
What image do we get on a plane mirror?
In addition to the plane, there are also spherical mirrors



# Eco house III

Episode 3

Spherical mirrors,
spherical mirror image acquisition using

# Objectives:

- **Learn the types of spherical mirrors, the main points, lines and planes of mirrors;**
- **draw a ray diagram of the image for spherical mirrors and list the properties of the image;**
- **Be able to use the acquired knowledge in solving practical problems.**

# Engage

Spherical mirrors are concave and convex. You will find out what properties they have and what kind of image is obtained by studying paragraphs 7.3 and 7.4.

# Explore

10 minutes will be enough for you

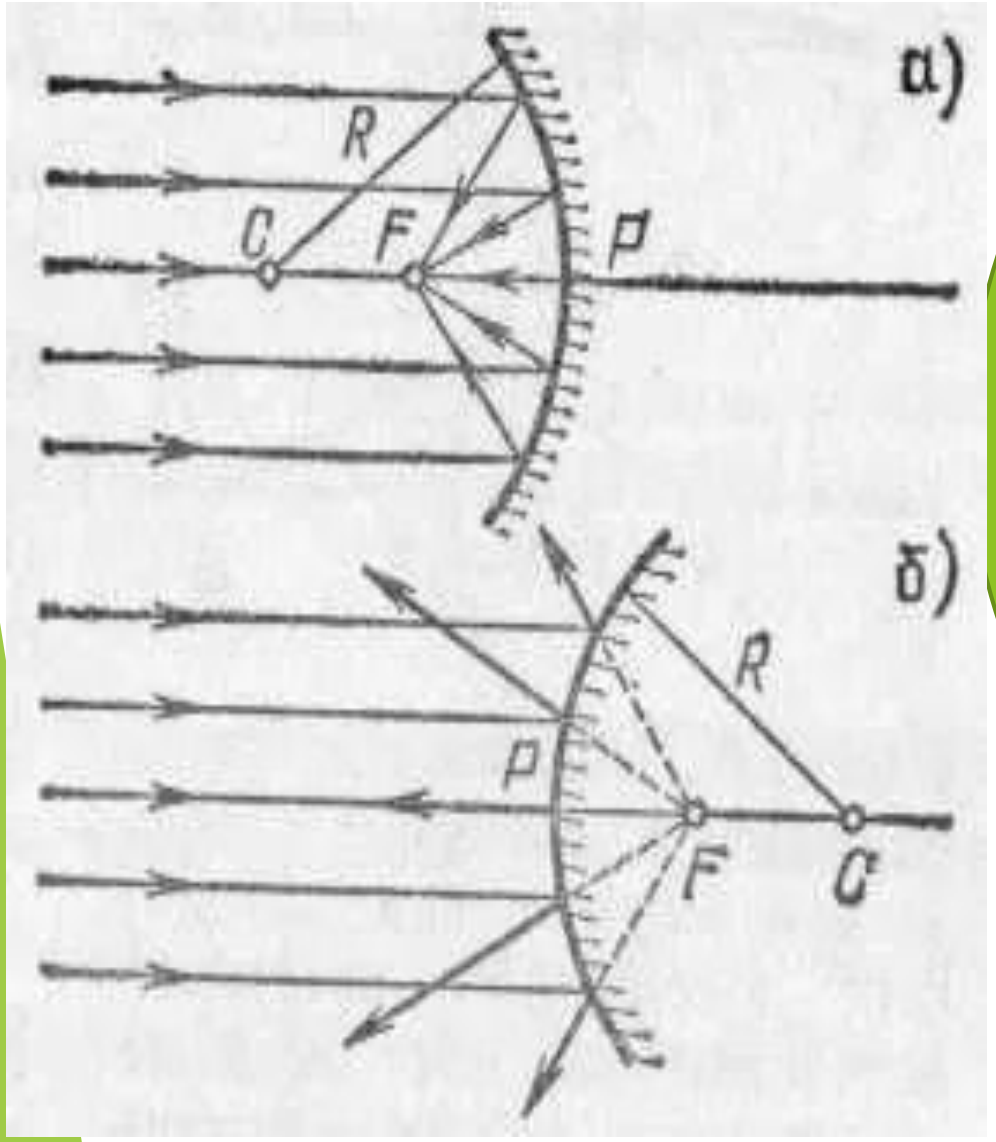
1 group read which rays are used to obtain an image in a concave mirror

2 group read the resulting images in a concave mirror

3 group read which rays are used to obtain in a convex mirror

4 group read the resulting images in a convex mirror

# Explain




1 group explains which rays are used to obtain an image in a concave mirror

2 group describes the resulting images in a concave mirror

3 group explains which rays are used to obtain in a convex mirror

4 group describes the resulting images in a convex mirror

# Elaborate

Now, using the acquired knowledge, try to use it in solving practical problems.To do this, use the materials that we have and explain how it works

**1 group.** make a doctor's mirror

**2 group.** make a planetarium model

**3 group.** make a model of an oven for cooking in the field

**4 group.** make a dentist's mirror

# Evaluate

The next task is solving problems, each group is given 1 task

1 group A concave mirror has the focal length of 20 cm. The distance between the object and mirror is 10 cm. Draw a ray diagram of the mirror, the object and the image. Use the ray diagram to measure the distance between the mirror, and the image.

2 group A concave mirror has the focal length of 20 cm. The distance between the object and the mirror is 50 cm. Draw a ray diagram of the mirror, the object, and the image. Use the ray diagram to measure the distance between the mirror and the image.

3 group A convex mirror has the focal length of 20 cm. the distance between the object and mirror is 10 cm. Draw a ray diagram of the mirror, the object, and the image. Use the ray diagram to measure the distance between the mirror and the image.

4 group A convex mirror has the focal length of 20 cm. The distance between the object and the mirror is 50 cm. Draw a ray diagram of the mirror, the object, and the image. Use the ray diagram to measure the distance between the mirror and the image.

# Evaluate

You have studied two types of mirrors. Please tell me what kind of mirror you will offer the farmer for the exterior wall, why?