

Workshop 6: The Mind's Intelligences

In this workshop, you will explore Howard Gardner's theory of multiple intelligences and see his theory being applied in a variety of different classrooms. Gardner will also discuss the importance of the disciplines and share his thoughts on educational reform in America.



HOWARD GARDNER

Professor of Cognition and Education at the Harvard Graduate School of Education and the author of many books and several hundred articles, Howard Gardner is best known in educational circles for his theory of multiple intelligences. During the past fifteen years, he and his colleagues at Project Zero have been working on the design of performance-based assessments and education for understanding. Gardner's book, *Extraordinary Minds*, case studies of exemplary creators and leaders, was published in 1997, and his latest book, *The Disciplined Mind: What All Students Should Understand*, will be published in the spring of 1999.

Workshop 6 timeline

GETTING READY

30 minutes

30 minutes—Moon Discussion

By now you have had an opportunity to observe the Moon over an extended period of time. What patterns have you noticed about the behavior of the Moon? Do these patterns involve time? Shape? Location? What predictions can you make about the Moon's behavior over time?

Think about your learning style as it relates to the Moon Journal activity, and share it with your colleagues. Are there similarities in learning styles among the people in your group? Differences?

What connections can you make between your colleagues' learning styles and experiences with the Moon Journal and the learning that happens in your classrooms with your students?

WATCH THE WORKSHOP VIDEO

60 minutes

GOING FURTHER

30 minutes

30 minutes—Perspective

Here's a good entry point for a lesson on Sun/Moon/Earth relationships:

Choose a partner and sit on opposite sides of a table or desk. Place two or three objects on the table between you. Without moving from your seat, sketch the objects from your own perspective, from your partner's perspective, and from a bird's eye view.

When everyone has completed the drawings, discuss the following as a group:

What problems did you encounter?

What strengths did you need?

Which students in your class would excel in this activity?

Which students would have difficulty?

What additional activities or entry points could you build for this lesson that rely on other strengths?

Is it important for a student who does not have a particular strength to do an activity that requires that strength? Why or why not?



HOMework ASSIGNMENT

Think about how you normally group students for activities, projects, seating, or other purposes. What criteria have you used in grouping? Make a list of the different ways you have used. Now consider ways you could group students according to Gardner's theory of multiple intelligences (MI). Do you think grouping students according to MI criteria would affect student performance? Try it!



Please bring a deck of cards with you to Workshop 7.

READING ASSIGNMENT

In preparation for Workshop 7, please read "Technology for Life-Long Kindergarten" by Mitchel Resnick. (All readings are included in the Appendix.)



MOON JOURNAL

You might want to take some time to look at the features on the surface of the Moon and consider the following questions:

- Does the Moon's behavior affect our perspective of the features on the Moon?
- Do features appear to "move across" the Moon from observation day to observation day?
- Does the Moon's behavior affect the visibility of features we can see on the Moon?

Here are more suggestions for reflecting on your own learning:

- What methods have you been using to make sense of your Moon observations?
- Have you noticed any patterns in your learning behavior that you use in this kind of learning situation?

Suggested activity



Observing the Features of the Moon

SKETCHING FEATURES ON THE MOON

MATERIALS:

Pencil
Paper or sketch pad
Binoculars (optical)
Moon Map (p. 43)

INSTRUCTIONS

Before using the Moon Map to identify features on the Moon, sketch the features you observe. When the Moon is not full, you should notice that the Moon is divided by a line—the *terminator line*—that separates the Moon's sunlit side from its shadowed side. The features on the Moon's surface stand out best near the terminator line. These features are even more apparent when using high-powered binoculars. Use your Moon Map to help identify interesting features on the Moon.

To observe a feature on the Moon over time, use your Moon Map to identify a feature close to the “curved” edge of the lit portion of the Moon. Examine this feature over a week or two. Is the feature always visible? Does the feature change its relative position? Does the feature seem to “move” across the Moon or stay in the same place?

CHALLENGE

How do your observations help you to learn something about the revolution time of the Moon as compared with the rotation time of the Moon?

MOON MAP

