

A Mini-Curriculum and Lesson Plan

Introduction

Radiologic technologists play a key role in health care, but one that is sometimes not well understood. In this lesson, students encounter the high-tech, high-touch world of medical imaging and radiation therapy.

Overview

This lesson uses the [Radcademy™](#) website, including four short [videos](#), to introduce students to the science and technology of medical imaging and radiation therapy. The goal of this lesson is to help students discover how medical images are made, learn basic principles about radiologic technology and better understand the science behind medical imaging and radiation therapy.

Objectives

After completing this lesson, students will be able to:

- Describe types of medical imaging.
- Explain the basic scientific concepts behind medical imaging and radiation therapy.
- Identify medical procedures they may have experienced.
- Access web-based learning materials to share with other students.

Directions

- Step 1:** Using language from the Overview section above, introduce the lesson by explaining that the class will explore the Radcademy™ website and its four short videos. Students will complete a worksheet while exploring the site and viewing the videos. Later, they will take a short quiz to demonstrate their proficiency in the objectives listed above.
- Step 2:** Initiate a brief discussion about their experiences with medical imaging and radiation therapy procedures such as x-rays, computed tomography, nuclear medicine, radiation therapy treatments, etc.
- Step 3:** Distribute the Radcademy™ Worksheet and introduce the [Radcademy™](#) website to the class.
- Step 4:** Instruct students to complete as much of the Radcademy™ Worksheet as they can while exploring the site.
- Step 5:** Play all four videos [found here](#). Some answers to the worksheet questions may be found the videos.
- Step 6:** Check to ensure all students have completed the Radcademy™ Worksheet. Perhaps students could check each other's work in small group settings. Teacher's keys to the Radcademy™ Worksheet and the Medical Imaging Science Quiz are available by request at radcademy@asrt.org.
- Step 7:** Lead student discussion using questions found on the Student Discussion Topics portion of this lesson plan.
- Step 8:** Distribute the Medical Imaging Science Quiz. Allow students to work from information on their completed worksheet, but not from the website.

Student discussion topics:

- Have you or a family member ever had an x-ray or another type of medical imaging procedure? What was it like?
- After seeing the different types of medical imaging and radiation therapy procedures, which ones do you find most interesting and why?
- Radiologic technologists work with other medical professionals as part of a team. What projects have you taken on as part of a team? How does a team approach ensure a better outcome?
- How does the term “high tech, high touch” reflect the process of medical imaging and radiation therapy? Why do you think people who are injured or ill require more compassion?
- What’s the most surprising thing you learned about medical imaging and radiation therapy after you explored the Radcademy™ website and watched the videos?

Supplementary information:

Educators may find the additional material [located here](#) to be helpful. Resources include:

- [Radiologic Science Glossary](#): From A to x-ray.
- Career Information: Learn what it takes to become a professional radiologic technologist.
- Links to Related Websites.

Additional reading aimed at the young adult audience:

The Head Bone’s Connected to the Neck Bone: The Weird, Wacky and Wonderful X-ray

Author: Carla Killough McClafferty

Publisher: Farrar, Strauss and Giroux, New York, 2001

ISBN 0-374-32908-7

[Learn more>](#)

Teachers Key to the Material

Teacher’s keys to the Radcademy™ Worksheet and the Medical Imaging Science Quiz are available by request at radcademy@asrt.org.

When requesting the materials please tell us:

- Your city and the name of your school.
- What grade you teach.
- How you discovered us.

We’re also interested in your [feedback](#). Please let us know how we can make these educator resources better for you.