



Andromeda and the Local Group Lesson Plan

Time: 40 minutes

Goals: To gain an understanding of the content and distances to the nearby galaxies in our Local Group.

Objectives: Students will:

- Watch the “Andromeda and the Local Group” segment of the “How far away is it” video book
- Take a short quiz

Materials:

- Internet connection with a computer for viewing [“Andromeda and the Local Group” segment on YouTube](#)

Directions:

- Introduce the ‘Andromeda and the Local Group’ segment as our first segment beyond our own galaxy. We’ll cover how we know that Andromeda is not inside the Milky Way, and we’ll take a closer look at some of the nebula inside galaxies that are orbiting our own.
- Show the video.
- Review what they saw:
 - How we discovered that the Andromeda nebula was actually another galaxy.
 - How smaller irregular galaxies populate the Local Group.
 - That a large number of dwarf galaxies orbit the Milky Way.
 - That the Large and Small Magellanic Clouds are dwarf galaxies with vast HII star forming regions.

Assessment:

Take a simple quiz. Print and distribute the quiz on page 2. Here are the answers:

- What kind of star was V1 in Andromeda that Edwin Hubble used to figure out how far away that galaxy is?
Answer: c) Cepheid variable
- What is the name of the second biggest galaxy in the Local Group?
Answer: b) The Milky Way
- In what galaxy is the Tarantula Nebula located?
Answer: c) Large Magellanic Cloud (LMC).



Andromeda and the Local Group quiz

- What kind of star was V1 in Andromeda that Edwin Hubble used to figure out how far away that galaxy is?
 - a) White Dwarf
 - b) Red Giant
 - c) Cepheid variable
 - d) Neutron star

- What is the name of the second biggest galaxy in the Local Group?
 - a) Andromeda
 - b) Milky Way
 - c) Large Magellanic Cloud
 - d) Triangulum

- In what galaxy is the Tarantula Nebula located?
 - a) Andromeda
 - b) Milky Way
 - c) Large Magellanic Cloud
 - d) Triangulum

