

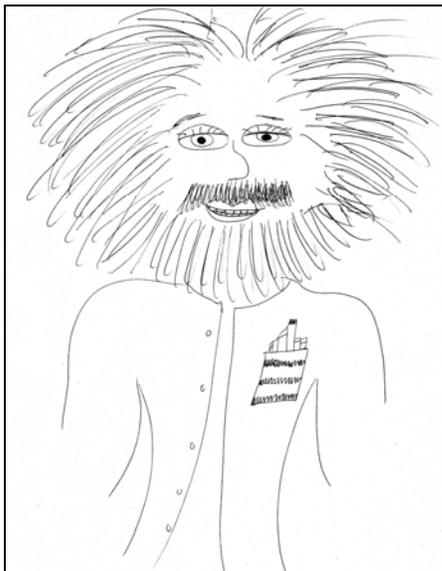
K-5 Nature and History of Science

Southern Nevada Regional Professional Development Program

Draw a Scientist

INTRODUCTION

The National Science Teachers Association (NSTA) has published several articles in its elementary journal *Science and Children* regarding students' and teachers' perceptions of scientists (Sep. 97, Jan. 01, May 01). NSTA found that most students and teachers perceive scientists as Caucasian males, who wear eyeglasses and lab coats (Sep. 97) (examples below). On the contrary, there are both male and female scientists from various diverse backgrounds who work collaboratively within a network of colleagues locally, nationally, and worldwide. Therefore, it is important for teachers to change the way their students view scientists. Many of today's top career choices from computer software engineers and social services workers to nurses, doctors and veterinarians require a strong background of science. Therefore it is imperative that teachers encourage and support their students' interest in science.



WHERE'S THE SCIENCE?

Students know science engages men and women of all ages and backgrounds. E/S (Nevada State Science Standard N2B1)

MATERIALS

- Blank Paper
- Books
 1. Historical biographies on famous scientists
 2. Careers in science
- Science notebook

PROCEDURES

Lesson One

1. Pass out a blank sheet of paper to every student and instruct them to draw a picture of a scientist at work and to describe their scientists. **Note:** If children do not know what a scientist is, speak with them one on one. If you discuss what a scientist is, with the entire class prior to the activity, you will affect the results. Primary students can dictate their sentences to you.
2. Ask the students to share their pictures of a scientist and sort by similar characteristics, allowing the students to decide how to sort the scientists. Discuss results. Below is a list of some common stereotypical responses seen working with both students and teachers:

Lab coat

Eyeglasses

Caucasian

Working indoors

Symbols of knowledge

Wild hair

Male gender

Middle-aged/elderly

Symbols of research

Tools (beakers)

3. Instruct the students to put their names and date on the back of their “Draw a Scientist” sketch. Collect and save them for use later in the year.

Follow-up Lessons

1. Have your students ask a parent or family member to draw a scientist as well and have students bring them in the next day to compare the adults’ drawings with the students’ drawings.
2. Invite scientists from your community to speak to your students about the field of science they are in. Consider inviting doctors, nurses, park rangers, and engineers, for example.
3. Connect the science you do in the classroom to the work a scientist does. For example, if you are studying the weather, invite a meteorologist in to speak about the science they do.
3. Integrate reading by sharing books that pertain to careers in science and biographies of the past and present scientists.
4. Repeat the “Draw a Scientist” activity at the end of the year. After completing the activity, pass out the students’ original “Draw a Scientist” sheets and ask the students to write or discuss how their views of scientists have changed since the first time they completed this activity.

Additional Resources

<http://www.heinemannlibrary.com>

Great Scientists ISBN 141093232X This series contains historical biographies.

Scientists at Work ISBN 1403499535 This series contains books about careers in science.

<http://www.delta-education.com>

Delta Science Readers Each Delta Science Reader contains a section titled “People in Science” which includes a historical biography or focuses on a career in science.

References

- Barman, C. 1997. Students' views of scientists and science: Results from a national study. *Science and Children*, pgs 18-23
- Bodzin, Alec & Gehringer, Mike. Jan. 2001. Breaking Science Stereotypes Can meeting actual scientists change students' perceptions of scientists? *Science and Children*, pgs.36-41
- Cavallo, Ann. Nov. 2007 Draw-a-Scientist Mystery Box. *Science and Children*, pgs. 37-41
- McDuffie, Jr., Thomas May 2001. Scientists-Geeks and Nerds? Dispelling teachers' stereotypes of scientist. *Science and Children*, pgs. 16-19

Nevada State Standards

N2B1 Students know science engages men and women of all ages and backgrounds. E/S

N2A1 Students know how to make observations and give descriptions using words, numbers and drawings. E/S

N2A2 Students know tools can be used safely to gather data and extend the senses. I/L