

Conservation Careers Program

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Overview

The Conservation Careers Program is for high schoolers ages 14 to 18. Classes will be held the first three Friday's of the month. There will be 10-15 slots available, depending on the instructor's preference and field trip activities.

Each class will review conservation careers and focus on one category specifically. The first class will be dedicated to learning about different conservation careers and looking at resources for researching jobs. The kids will be assigned homework and have to come prepared to share their findings at the second class. In the second class, students will learn about more conservation careers before sharing their job findings and working on resumes. The third class will be a hands-on experience or visit from a professional. Hours for these hands-on classes will vary, depending on location and activity.

Program Schedule

June Schedule - Session One

June 5th: Animal Health

June 12th: Field Work

June 19th: field trip - Contact the Institute for Bird Populations' MAPS program - ask about letting the kids participate in releasing birds and shadow bird capture/banding

July Schedule - Session Two

July 3rd: Education

July 10th: Art

July 17th: field trip - Host a scientific illustrator student from MSUM (or any other nearby college), an advisor, or an active scientific illustrator to talk about the details of the job. Could also have someone who teaches sustainability at one of the nearby colleges give a talk about what they do and their experience. Patrice Delaney is currently studying at MSUM and said she'd be happy to talk about her experience, contact Sidra for her information.

August Schedule - Session Three

August 7th: History

August 14th: Business and Policy

August 21st: field trip - have Sally give a talk about her experience being director of the zoo, have the Plains Art Museum director talk about what they do, and/or reach out to [Jesse Rock](#) at NDSU to come talk about what she does.

Website Information

Being in high school is tough. So many people tell you to figure out what you want to “be” when you grow up, but don’t actually tell you how to research careers or give tips on how to choose from so many choices. In this program, we will talk about some of the different conservation careers and give tips and resources on how to find and choose different career options. The last class in a session of three classes will be an interactive experience based on the careers we learned about.

This program is for high-schoolers 14-18 years old, and the class size will be 15 students maximum.

Include schedule of program, but exclude the field trip notes

Marketing Plan

Begin posting to Facebook page about the upcoming program starting in May. Send out emails to the Wildlife League Kids and the zoo members. If possible, visit the high schools and make announcements in homeroom classes or arrange for the program to be presented in morning announcements (if applicable). Contact local news stations about the exciting new program designed to help high schoolers learn about conservation careers and how to prepare for life after high school.

Sign-Up Form

*required question

1. Student’s Name*
2. Email and Phone Number*
3. Student’s Age (must be 14-18)*
4. Program Session (can choose just one, all three, or any combination of two)*
5. What career is the student interested in? Have they thought about it?

(This [link](#) is to the form I made so you can see what it might look like)

Financials

The only costs to the zoo for this program are ink and paper use from printing the handouts for the kids, any cost to bring in professionals to talk, and the cost of having a staff member run these classes.

Because the zoo is a nonprofit and would be running this program for educational purposes, I assume you would be able to find speakers and experiences at a very low cost for the “field trip” days, and you could most likely get local high schools to spread the word of this program for free within their student bodies.

My hope is that the “field trip” days would be hands-on field trips out into the “real world”, and the kids and instructor would work out transportation depending on the group of students (no transportation costs needed). However, if this track leads to too expensive of an option, bringing professionals in to speak to the kids is a wonderful way for them to interact with the career topic. Because of COVID-19, I did not spend too much time reaching out to a bunch of potential opportunities for the summer, as these are unprecedented times and any financial information I might receive from said opportunities would most likely be obsolete by the time our world is back up and running.

With costs being low, the zoo can charge students a lower amount for the program and still make a profit. The idea is that this program makes the zoo money while being an affordable learning experience for high school students who are starting to think about what they want to do with the rest of their lives.

Lesson Plans

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Lesson Title: Animal Health Careers

Length: 60-90 minutes

Age Group: 14-18 year olds

Overview

Students will learn about different animal health careers, including zookeeper, vet/vet tech, breeding, and nutrition specialist. They will receive resources and tips in the last part of the class to help them research jobs and related requirements.

Students will be able to give descriptions of a few animal health careers, as well as research different jobs on their own.

Materials

Computer(s) with internet access

Pencils/pens

Job Research Worksheet

Activities and Procedures

Welcome to the very first day of our new Conservation Careers Program!

Today we'll be talking about animal health careers. Can you guys think about any animal health-focused jobs? We'll talk about zookeeping, vet/vet tech, breeding, and diet nutritionist jobs. There are tons more hands-on animal health jobs, but we don't have time to go over all of them today.

Zookeeping is a great way to work with animals hands-on. Zookeepers are in charge of an animal's overall well-being. Education and experience vary depending on the zoo or animal sanctuary you want to work with. Generally, a bachelor's degree in biology or zoology is what you would want to pursue for your education. Zoos and animal sanctuaries require some experience before hiring as a zookeeper, but many have internships and volunteer programs you can do to gain experience. Here at the Red River Zoo, we have a zookeeper internship available year-round, and a volunteer program that you can join to gain more experience.

Veterinarians and veterinary technicians provide more specific care to animals. They give regular check-ups, along with more intense care. Vets and vet techs may be very similar, however they are not the same occupation. Day to day operations may be the same for them, however they are qualified to do different intensive care. Veterinarians are the animal doctors, and vet techs are the nurses. Veterinarians are the final decision makers and ones to

conduct surgeries, and vet techs are qualified to assist in surgeries or take x-rays. It takes more schooling to become a veterinarian and is more expensive, but the pay is also higher than that of a vet tech. If you want to learn more, you can visit veterinarianedu.org!

Breeding is an incredibly important part of animal species conservation. A species cannot survive without reproduction. The Species Survival Plan (SSP) is the Association of Zoos and Aquariums' (AZA) breeding program. The SSP works toward population management of certain species in AZA institutions. There are many different positions within the SSP program, some are very hands-on, like a zookeeper, actively working to breed an animal pair. Other positions are more hands-off, like a scientist or vet who researches the genetics of specific animals at different zoos to find the best match.

Animal nutritionists fall under a broader career category called animal scientists. Animal nutritionists are exactly what they sound like - they study and create diets for animals. Employers look for people with a bachelor's degree in an animal science related field.

Activity

Ideation mapping: You -> Skills and Interests -> Possible fields/jobs within your skills/interests.

Look at bls.gov/ooh and careeronestop.org websites as a group - explore the websites a bit together.

Assignment: Before leaving, students will choose a job to research at home. Students will explore websites at home and will come to the next class with their job research worksheet filled out. This will include the job title, description, related education and experience, and an internship or volunteer experience that has to do with the job. Students should also come prepared to build a resume next class, as well.

Conclusion

Students will have learned about education and experience requirements for some animal health jobs.

Lesson Title: Field Work Careers

Length: 60-90 minutes

Age Group: 14-18 year olds

Overview

Students will learn about different field work careers, including field research, park ranger, environmental science. We will review these job descriptions and education and experience required for each. We will go over the students' job research worksheets from last class and start working on resumes.

Students will be able to give descriptions of a few field work careers, as well as build a resume.

Materials

Computer(s) with internet access

Pencils/Pens

Resume Worksheet

Activities and Procedures

Welcome back! How was everyone's week?

Today we'll be looking at field work related conservation jobs. What are some jobs in this category that you can think of? We'll look at field researchers, park rangers, and environmental scientists.

Field researcher is a really general title. There are many different topics that require researchers in the field. From studying bird migration and populations with the Institute for Bird Populations to The Scientific Committee on Antarctic Research to NASA, there is no doubt a field research topic you could find that you're passionate about. Required and recommended education and experience differ depending on what you want to do within field research, however there are lots of volunteer experiences and internships available.

Park rangers spend much of their time outdoors. Information and requirements differ state to state, and local, national, and state parks will accept different education levels. The National Park Service requires either a bachelor's degree or one year of specialized experience at the GS-4 federal level and two years of post-secondary education. A great resource to learn more about becoming a park ranger is <https://www.parkrangeredu.org>.

Environmental scientists study natural sciences and find ways to protect the environment. They can work outside, in the field, or in labs. According to the Bureau of Labor Statistics, duties include determining data collection methods, compiling environmental data, analyzing the data and identifying threats to the environment, creating solutions for found threats, and presenting their findings to the government and the public about found threats. Most employers look for candidates with a bachelor's degree in environmental science or a science-related major.

Activity

Have the kids share what they found on their jobs that were assigned last class. Ask for any questions, and do your best to answer or provide resources that may lead to an answer. Pass out the Resume Worksheets and have the kids start filling them out. Float, and help as needed. Have the kids think about their past experiences. Remind them that different employers looking to fill different jobs may want to see certain experiences over others, so the kids may have to prioritize their experiences. The worksheet is just for the students to organize their information. For format examples, look up resume examples online.

Conclusion

Students will have learned about some field work conservation careers and their education/experience requirements. They will have also shared their job findings that were assigned during the last class, and they will have started working on their resume worksheets.

Lesson Title: Education Conservation Careers

Length: 60-90 min

Age Group: 14-18 year olds

Overview

Students will learn about different education conservation careers, including educator, tour guide, and consultant. They will receive resources and tips in the last part of the class to help them research jobs and related requirements.

Students will be able to give descriptions of a few education conservation careers. They will also know some useful resources for looking up job information.

Materials

Computer(s) with internet access

Pencils/pens

Job Research Worksheet

Activities and Procedures

Welcome to conservation careers! Today we'll be talking about educational conservation careers. Can anyone think of any jobs where your job is to teach about conservation? We'll focus on educators, tour guides, and consultants today.

Educators have a very important job. They teach students about conservation and the science surrounding it. Educators allow people to go on and work in other conservation-related fields. Their job is to teach people about whatever subject they are hired to teach, as well as support their students and provide resources and advice. To teach at different levels requires different education. K-12 requires a bachelors of education with certificates in the field you wish to study, and many employers prefer hiring those with a masters. To be a professor at a college or university, you should get a PhD in your preferred field of study. It is a competitive position to be a professor, so it is very unlikely that you would be hired without a PhD.

Tour guide is a really general term. There are tour guides for everything, and even if you're a tour guide for something not directly conservation-related, you can still always bring conservation into the conversation. In the sense of conservation, a tour guide might guide nature hikes, safari's, or give tours through a zoo, animal sanctuary, or museum. It's a great way to directly interact with the public and spread the message of conservation. Your degree will differ depending on which direction you want to take as a tour guide, so environmentalism and/or biology is a good area to start in.

Consulting sounds like a pretty great job - you basically get paid to give your advice. Consulting, like being a tour guide, is a very general term. There are consultants for everything. For environmentalism, a consultant is someone who has studied and worked in the field and has scientific knowledge about the environment and our impact on it, as well as a good understanding of government regulations. Businesses and governments will hire environmental consultants to help them navigate the environmental-related issues of a project. If a company has a court case that involves the environment, an environmental consultant might testify on the company's behalf. Consultants are contract workers, and you can either work within a firm or for yourself.

Activity

Ideation mapping. You--Skills and Interests--Possible fields/jobs within your skills/interests. Look at bls.gov/ooh and careeronestop.org websites as a group - explore the websites a bit together.

Assignment: Before leaving, students will choose a job to research at home. Students will explore websites at home and will come to the next class with their job research worksheet filled out (found at the end of this document). This will include the job title, description, related education and experience, and an internship or volunteer experience that has to do with the job. Students should also come prepared to build a resume next class, as well.

Conclusion

Students will have learned about different education conservation careers, along with how to research job information on their own.

Lesson Title: Art Conservation Careers

Length: 60-90 min

Age Group: 14-18 year olds

Overview

Students will learn about different art conservation careers, including scientific illustration, exhibit design, architecture, author or muralist. Then we will go over everyone's job findings that were assigned last class before the students move on to building their resumes.

Students will be able to discuss different art conservation careers. They will also be able to build a resume.

Materials

Computer(s) with internet access

Pencils/Pens

Resume Worksheet

Activities and Procedures

Scientific illustration is a great way to combine both art and science into one job. A scientific illustrator prepares accurate depictions of any scientific subject using traditional and digital art platforms. You can find scientific illustration in museums, books, websites, magazines, journals, and more. This job is competitive, so a masters degree is recommended. You can find scientific illustration majors at certain colleges, so if this is a degree you are interested in, you should find a college that offers this specific major.

Every new zoo or sanctuary needs someone to design the exhibits and buildings. For this, an architecture degree is needed. Architects can work for themselves, doing contract work, or they can join an architecture firm. You can do fine with a bachelor's degree in architecture, but a status higher than junior designer requires a masters. Some states also have a required licensure exam that you have to take before you can practice.

Journalists and authors write about anything and everything. There are plenty of conservation-thinking organizations that need people writing their blog entries and articles. National Geographic has journalists and photographers that capture the beauty of the world to share. Usually colleges have journalism majors you can apply to. Colleges also all have some form of newspaper or magazine that you can apply to work for. Not all employers require a degree for this field, but they do look at portfolios and your experience.

Activity

Have the kids share what they found on their jobs that were assigned last class. Ask for any questions, and do your best to answer or provide resources that may lead to an answer. Pass out the Resume Worksheets and have the kids start filling them out. Float, and help as needed. Have the kids think about their past experiences. Remind them that different jobs may want to see certain experiences over others, so depending on the job the kids will have to prioritize their experiences. If the kids were at last month's classes, have them edit their resume and start working on a cover letter. Look up resumes and cover letters online for formatting examples.

Conclusion

Students will have learned about some art conservation careers and their education/experience requirements. They will have also shared their job findings that were assigned during the last class, and they will have started working on their resume worksheets.

Lesson Title: History Conservation Careers

Length: 60-90 min

Age Group: 14-18 year olds

Overview

Students will learn about different history conservation careers, including paleontology, museums, and professors. They will receive resources and tips in the last part of the class to help them research jobs and related requirements.

Students will be able to talk about a few different history-related conservation careers, as well as research job information on their own.

Materials

Computer(s) with internet access

Pencils/pens

Job Research Worksheet

Activities and Procedures

Today's class focuses on conservation jobs that center around history. Can anyone think of any history conservation jobs? We'll talk about paleontology and museum jobs.

Paleontology is a super cool job. It is more of a field-work job, but it also is all about learning the history of our earth. Paleontologists search for and uncover fossils to study and learn about Earth's past ecologies and climates. To become a paleontologist, you need a PhD in paleontology, and it's recommended to double-major in biology and geology for your undergrad. Usually, paleontologists study a specific paleontology-related topic after their undergrad. Learn more about paleontologists at

<https://www.environmentalscience.org/career/paleontologist>.

Museums preserve all different mediums of the history of our world. There are lots of different kinds of jobs to be found in museums. You can give talks and tours at museums, and directly share history with the public. You could also teach classes at your local museum. Museum curators responsibilities vary depending on the size of the museum, but generally they oversee all museum activities - programs, galleries, special speakers, etc. There are so many different kinds of jobs to be found in museums, it really depends on what kind of job you are interested in.

Activity

Ideation mapping. You--Skills and Interests--Possible fields/jobs within your skills/interests. Look at bls.gov/ooh and careeronestop.org websites as a group - explore the websites a bit together.

Assignment: Before leaving, students will choose a job to research at home. Students will explore websites at home and will come to the next class with their job research worksheet filled out (found at the end of this document). This will include the job title, description, related education and experience, and an internship or volunteer experience that has to do with the job. Students should also come prepared to build a resume next class, as well.

Conclusion

Students will have learned about different history conservation careers along with how to research job information themselves.

Lesson Title: Conservation Business Careers

Length: 60-90 minutes

Age Group: 14-18 year olds

Overview

Students will learn about different business conservation careers, including marketing, management, finance, PR, consulting, and law. We will go over their job findings from last class and start working on resumes.

Students will be able to give descriptions of a few business careers and they will know how to create a resume.

Materials

Computer(s) with internet access

Pencils/Pens

Resume Worksheet

Activities and Procedures

Any business or organization needs people in business and policy to function, from finance to public relations to law. Today we'll talk a little about general business careers and law practitioners, and talk about how they can tie into conservation.

General business positions - marketing, management, finance, public relations - are found in every single business and organization. Whether you work for a non-profit or a for-profit company, business is always involved.

Marketing is the strategy behind a business. Marketers work to create strategies for a company - they think through the overall message of the organization, what they want the brand to mean, how to reach as many consumers as possible. They work to help the company or organization be understood and supported by the general population. REI sells outdoor gear, but they also promote people consuming less and going outside more.

Nonprofits like most zoos or the Parks and Rec Department also need marketing teams to promote their message. Without people creating marketing strategies, organizations wouldn't be able to survive.

Management are the people in charge of overseeing all the employees. There are different levels of management, from a single store manager all the way up to CEO or director.

Finance is the money side. The finance department is in charge of keeping track of all income and expenditures. They help organizations make decisions for moving forward - can they afford to hire more workers, can they afford a lawyer if needed, etc.

Public relation workers are those who work directly with the public to ensure the organization's brand is respected and liked by the public. If consumers don't like your company's message or actions, they won't support you, and your company will die. There are plenty more categories within business, and they are all related with much overlap. Most colleges and universities offer general business majors, with specific areas of study, so this is one where you'd want to think about what you might be good at, and then research different programs at different schools.

Law practitioners are valuable to any environmental organization. Environmental lawyers study law and environmental policy and work to protect the environment and wildlife. They can also act as consultants for companies who are moving toward more sustainable practices. To become an environmental lawyer, you need a Bachelor of Laws or Juris Doctor law degree, and to make yourself more hireable or to reach a higher-paying position, it is recommended to get a Masters of Law, Masters of Environmental Law, or a Doctor of Philosophy. After schooling, you'll need to gain some experience and study for the bar exam.

Activity

Have the kids share what they found on their jobs that were assigned last class. Ask for any questions, and do your best to answer or provide resources that may lead to an answer. Pass out the Resume Worksheets and have the kids start filling them out. Float, and help as needed. Have the kids think about their past experiences. Remind them that different jobs may want to see certain experiences over others, so depending on the job the kids will have to prioritize their experiences.

Conclusion

Students will have learned about some business careers and their requirements, and how these jobs can be easily applied to conservation settings. The students will have also shared their job findings that were assigned during the last class, and they will have started working on their resume worksheets.

Print Outs

Job Research Worksheet pg. 20
Resume Worksheet pg. 21
Helpful Resources pg. 23

Name: _____

Date: _____

Job Research Worksheet

Choose a job that you want to learn more about and research it at home. Come to the next class prepared to share your findings, and be prepared to start building a resume.

Useful websites: [bls.gov/ooh](https://www.bls.gov/ooh) and [careeronestop.org](https://www.careeronestop.org)

1. Job Title

2. Job Description

3. Required Education and Experience

4. Internships and Volunteer Opportunities, including location (aim to find opportunities in the area, but anywhere in the world is fine).

Name: _____

Date: _____

Resume Worksheet

Check out https://wingsforlifeinternational.org/docs/resources/Resume_guide.pdf for more information on creating your resume.

Always keep your resume to one page. This means you will eventually (if not already) have to edit out some information. This is why it is so important to keep in mind what you are applying for - you don't want to take up space showcasing irrelevant information. You can go slightly more in-depth on why you think you'd be great for a job in the cover letter (which we won't go over today). Feel free to ask any questions while working on filling out this worksheet, and refer to the pdf linked above for formatting suggestions.

Objective

What is your reason for turning in this resume? What position are you applying for? Keep it short, down to one or two sentences.

Summary of Qualifications

Let the employer know your skills and qualifications match what they're looking for.

Education

Include your high school name, city/state, degree earned, and start year and expected year of graduation. Also include any academic honors and awards you have received, your GPA, and any relevant coursework.

Work Experience

This doesn't have to be a "real" job. Many young people who have not acquired much work experience include yardwork or babysitting in this section.

List employer/organization, city/state, job title, and dates (month and year), followed by a short description of job duties and expectations.

List experience in order of most recent to least recent. If experience overlaps, your ongoing experience is most recent. If more than one experience is ongoing, whichever started more recently is most recent.

Additional Skills and Accomplishments

Depending on the job, you may want to include some skills you bring or any accomplishments you are proud of. Just make sure they fit with the description of the job you're applying for.

Organizations

What clubs/athletics/extracurriculars are you involved in?

References

These are people your prospective employer can contact to learn more about your character. Always ask before putting someone down as a reference. Include the person's first and last name, their contact information (if you can, include their phone number, email, and professional mailing address), and who they are (how they know you/you know them).

Helpful Resources

Find career information, take a career test, and more: careeronestop.org

Government website with career information: bls.gov/ooh

Tips to help you prepare for your career:

<https://diversityinconservationjobs.org/five-ways-to-prepare-yourself-for-your-career-this-semester/>

List of conservation-oriented organizations that you could work for:

<https://diversityinconservationjobs.org/jobs/>

Find environmental science-related programs and jobs:

<https://www.environmentalscience.org/career/>