

Careers

Upper/ Lower Secondary

Key Inquiry Questions

1. What does it mean to be intelligent?
2. What careers would I be best at?

Learning Outcomes

1. Students will be able to recognize that there are multiple types of intelligence by the end of the lesson.
2. Students will be able to see how different skillsets can be applied to a variety of careers.
3. Students will be able to find different careers that appeal to them and relate them to the subjects they are learning in school.

Overview

In this lesson, students will be given the opportunity to discover different careers in the world. Many times, students stray away from wanting to do a career because they don't think they are "smart" enough. This lesson will allow students to explore their particular type of intelligence and what careers relate to them. Students will start the lesson off with a journal entry in which they respond to the following prompt: what do you want to be when you grow up? After sharing their responses, students will take a mini "personality quiz". This results of this quiz will show what types of intelligence they have. Intelligence types are: verbal, visual, body, music, mathematical, interpersonal, intrapersonal, or naturalistic intelligence; they can even have a combination of two or three. After completing the quiz, students will be able to look at the characteristics associated with their intelligence type(s). Additionally, students will be able to view careers associated with their intelligence type(s). Students will then choose one career from the list given and make a poster about it. They will include the following on the poster: a description of what the job entails, explanation of why the job appeals to them, what subjects are crucial to knowing for the job (math, English, science, etc), how does the job align with the type of intelligence it is listed under, and a picture or drawing of them in the job. All students will present there poster to the class on the due date.

Materials

SolarSPELL Resources:

1. "Types of Intelligence Quiz/Explanations" (included below)
2. "Core Subjects and Your Career" (included below)

Other:

1. Paper
2. Writing Utensil
3. Coloring Utensils (if possible)
4. Poster paper (if possible) -> if not use paper
5. Types of Intelligence worksheet
6. Types of Intelligence Quiz worksheet
7. Results: Calculation worksheet

Suggested Procedure

Before Lesson:

- Begin the lesson by having students take out a sheet of paper or a notebook.
 - Explain to students that they will be writing a journal entry.
 - A journal entry is an activity that can be done every day, any part of the day, to get students thinking. For a journal entry, there is always a question given to the students that they have to reply to. Their replies can vary from writing a page length response to drawing a picture to respond. The purpose of the activity is to get students thinking and to allow them to be creative.
 - Tell the students the prompt for their journal entry is: what do you want to be when you grow up and why?
 - Explain to students they will have ten minutes to answer this question.
 - Let them know they can answer in whatever form they like: pictures, writing, etc.
- After students have had ten minutes to answer the prompt, tell students to finish the sentence they are on and put their pencils down.
 - Ask for a few volunteers to share their responses.
 - Allow them to have flexibility where they want to present: sitting down, in front of the class, etc.
 - Have five to six students present.
 - After a student has presented allow their classmates to ask them further questions (related to what their response was).
 - After students have presented have students put their notebook or piece of paper away.

During Lesson:

- Explain to students they will be taking a short quiz.
 - Emphasize that this quiz will not be taken for a grade, but you want them to answer honestly; go with their gut response.

- Also, emphasize that they should not share their responses with other classmates; this is strictly opinion-based. If possible, print each student a “Types of Intelligence Quiz” sheet.
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- Give students 10 minutes to complete the quiz.
 - There are 24 questions, students must circle yes or no for each question.
 - Have students who are finished with the quiz do something quietly while other students complete the quiz.
- **If printing is not possible:**
 - Ask students to each pull out a piece of paper and number it 1 to 24.
 - After students have written down each number, say the questions out loud to the students.
 - Example: “Number 1, do you enjoy listening to other people talk”?
 - Once students here the question, they will either write Yes or No next to their number 1.
 - Repeat this process for each question, all the way to 24.
- After students have written, or circled, Yes or No for each question, print and give each student the worksheet labeled “Results: Calculations”.
 - For this sheet, students will look at the numbers listed, if they put Yes for that number, they will put a checkmark by the number.
 - If they put no, they will leave the space next to the number blank.
 - After the students have gone through each number and put a checkmark by the ones they put Yes, students will count how many checkmarks, out of three, they have for each section.
 - Example:

Verbal Intelligence:

1 ✓

15

21 ✓

Total: 2 /3

- After students have a total for each section, students will circle the types of intelligence that they have a total of 3/3.
 - If students don’t have any with 3/3, they will circle the types of intelligence with 2/3.
- Once students have their types of intelligence(s) circled, gives students a copy of the worksheet labeled “Types of Intelligence”.
 - Here students will find the characteristics of a person with that particular type of intelligence as well as the careers those people would be good at.

- **If printing is not possible:**
 - Have students make 8 different sections.
 - Tell students to label each section with one of these titles: Verbal, Mathematics, Music, Visual, Body, Interpersonal, Intrapersonal, and Naturalist.
 - After students have made their labels, go through each section with the students. Use the worksheet labeled “Results: Calculations” to know which number goes to which section:
 - “If you put a yes for question 1, put a checkmark under the section labeled Verbal. If you put yes for question 15, put a checkmark under the section labeled Verbal.”
 - Continue this process for each section and question number.
 - Once each section has been gone through, tell students to count up how many checkmarks (out of 3) they have in each section.
 - There should be no more than 3 check marks in each section.
 - After the total for each section is made, ask students to circle
 - Once students have their types of intelligence(s) circled, give students a copy of the worksheet labeled “Types of Intelligence”.
 - Here students will find the characteristics of a person with that particular type of intelligence as well as the careers those people would be good at.
- **If printing is not possible:**
 - Have students take out a sheet of paper to take notes on.
 - Tell students to write down key characteristics as well as the careers listed they hear related to the type of intelligence they have circled.
 - Read off the worksheet labeled “Types of Intelligence” to students while they take notes on the characteristics and the careers for their type of intelligence.
- After students have discovered the characteristics and careers related to the type of intelligence, have students get with a group of 4.
 - Once students are in a group of 4, have students share with their group the following:
 - What they found most interesting or surprising about their results.
 - What career appeals most to them from their results.
 - What type of intelligence did they get that they didn’t think they had before.

After Lesson:

- Explain to students that they will now be picking one career based off of their intelligence(s) listed.

- If a student would like to do a career not listed on the worksheet, allow them to add it to the list under the intelligence category they feel it best fits.
- After students have chosen a career, tell students that they will be making a poster for their career.
 - On this poster they need:
 - A description of what the job entails.
 - Explanation of why the job appeals to them.
 - What subjects are crucial to know for the job: math, English, science, etc.
 - A picture or drawing of them in the job.
 - Example: If I picked the career Scientist, I would draw myself working in a lab.
 - How does your job align with the type of intelligence it is listed under?
 - Note: if their chosen career is not listed on the worksheet, remind students to place it in the category they believe it best fits in.
 - Students will have a week to complete their posters.

Assessment:

- Each student will present their poster on the due date
- They will be graded for:
 - Presentation skills: eye contact, projection of voice, interaction, etc.
 - Quality of poster: was there time put into the poster?
 - Information presented: are all of the requirements on the poster?

Types of Intelligence

- Verbal Intelligence

- Characteristics:

- A person who has verbal intelligence typically like most things related to writing and reading. They can easily solve problems that are related to language: words, writing, conversation, etc. People with verbal intelligence can learn better through communication in a social aspect: an example is group work.

Here are some other characteristics of a person with verbal intelligence: loves to write, loves to learn new information related to any type of language, a good reader, has great vocabulary, and good verbal communication.

- Careers Related:

- A person with verbal intelligence would be great at the following careers: teacher, reporter, news reporter, writer, editor, or a translator.

- Mathematics Intelligence

- Characteristics:

- People who has mathematical intelligence are usually great at speaking with logic and reasoning. They will heavily rely on research to prove a point or an argument. Typically people with mathematical intelligence are good at subjects related to math and the scientific method.

Here are some other characteristics of a person with mathematical intelligence: needs an objective or purpose, more of a perfectionist, and works comfortably with numbers and equations.

- Careers Related:

- A person with mathematical intelligence would be great at the following careers: accounting, engineering, lawyer, teacher related to science or math, doctor, or programmer.

- Musical Intelligence

- Characteristics:

- People who have musical intelligence are people that are great at finding rhythm or beats to music. They are very good listeners and can notice the slightest of anything off-key. People with musical intelligence usually have a good memory when it comes to anything with patterns or music. They typically are people that like to sing or hum at any given point of the day.
Here are some other characteristics of a person with musical intelligence: sensitive to types of noise, love sounds or any kind, most of the time will find a reason to tap their foot to a rhythm, and have a talent related to instruments.
- Careers Related:
 - A person with musical intelligence would be great at the following careers: composer, musician, minister, or a teacher related to music.
- Visual Intelligence
 - Characteristics:
 - People with visual intelligence are people who have a very photographic memory. They are people who are very observant to the things around them at all places. They are very visual learners, meaning they learn best with pictures, drawing, or organized directions. Visual intelligent people are great at picturing things in the head and drawing out a plan.
Here are some other characteristics of a person with visual intelligence: love photography (taking pictures or observing), have a talent for drawing with any type of utensil (paint, pencil, pen, etc.), good at following directions, and can easily remember things if there is a visual involved.
 - Careers Related:
 - A person with visual intelligence would be great at the following careers: animation, designer, any type of artist, architect, or photographer.
- Body Intelligence
 - Characteristics:
 - People with body intelligence typically learn best through movement or activity. Hands-on activities are best for these types

of learners as well as outdoor activities. These people typically are really good at sports or anything that involves being active.

Here are some other characteristics of a person with body intelligence: coordinated, excited people, good body coordination (can multitask), and learn best through involvement.

- Careers Related:
 - A person with body intelligence would be great at the following careers: trainer, city worker (firefighter, police officer, construction workers), ranger for a park or a forest, or an athlete.
- Interpersonal Intelligence
 - Characteristics:
 - People with interpersonal intelligence are best when put into any kind of social situation. They have very open personalities and are great when surrounded by others. They are very social people and can make friends anywhere they go. They have a big heart for others and are usually the friend to go to for problems.
Here are some other characteristics of a person with interpersonal intelligence: enjoy working with others on projects (group work), have no problem meeting other people and can make lots of friends, can be very sensitive and vulnerable, and love being surrounded by others.
 - Careers Related:
 - A person with interpersonal intelligence would be great at the following careers: any type of counselor, manager for a company, political figure, or a sales representative.
- Intrapersonal Intelligence
 - Characteristics:
 - People with intrapersonal intelligence are usually more self-aware than others. They are very independent learners and usually work best when they are alone. These types of people reflect on everything that they do and analyze almost everything they do.
Here are some other characteristics of a person with intrapersonal intelligence: introverted, spend a lot of time reflecting on themselves and how to do things better, know their strengths and weaknesses fairly well, and can enjoy their time by writing about their day or life.

- Careers Related:
 - A person with intrapersonal intelligence would be great at the following careers: scientist, counselor of any type, company owner, inventor, or working in a library.

- Naturalist Intelligence
 - Characteristics:
 - People with naturalist intelligence are people who have a lot of appreciation for nature and their surroundings. They have a huge heart for the things that grow or live in the outside world. This also goes hand-in-hand with issues related to the earth: pollution, litter, etc.
Here are some other characteristics of a person with naturalist intelligence: awareness of the climate, animal lover, learns best outside, and a good carer of plants.
 - Careers Related:
 - A person with naturalist intelligence would be great at the following careers: vet, ranger of a park or a forest, biologist for animals, farmer, trainer for animals, or geologist.

Types Of Intelligence Quiz

Circle Yes or No for each question

Do you:

1. Enjoy listening to other people talk?

Yes or No

2. Enjoy doing or participating in math?

Yes or No

3. Like to draw more than writing?

Yes or No

4. Use lots of hand gestures/ movement when talking or explaining?

Yes or No

5. Listen to music to boost your mood?

Yes or No

6. Love learning about science?

Yes or No

7. Give advice to people most of the time?

Yes or No

8. Hum or sing in quiet situations or while thinking?

Yes or No

9. Like to work in groups?

Yes or No

10. Remember most or all of your dreams?

Yes or No

11. Want to learn more things about nature: bugs, plants, rocks?

Yes or No

12. Enjoy collecting things from outside?

Yes or No

13. Know your strengths and weaknesses?

Yes or No

14. Have/give lots of empathy to others?

Yes or No

15. Enjoy reading?

Yes or No

16. Remember a lot of songs/music?

Yes or No

17. Love playing/learning new sports?

Yes or No

18. Easily express how you are feeling to others?

Yes or No

19. Draw a lot on your free time or to stay focused?

Yes or No

20. Ask a lot of questions to better understand a subject?

Yes or No

21. Like to learn the meanings of words?

Yes or No

22. Enjoy puzzles of any kind?

Yes or No

23. Learn directions to a place easy?

Yes or No

24. Tap or fidget when sitting in one place for a long period of time?

Yes or No

Results: Calculations

Put a ✓ next to the numbers you answered Yes to

Verbal Intelligence:

1

15

21

Total: /3

Mathematics Intelligence:

2

20

22

Total: /3

Musical Intelligence:

5

8

16

Total: /3

Visual Intelligence:

3

19

23

Total: /3

Body Intelligence:

4

17

24

Total: /3

Interpersonal Intelligence:

7

9

14

Total: /3

Intrapersonal Intelligence:

10

13

18

Total: /3

Naturalist Intelligence:

6

11

12

Total: /3

Core Subjects and Your Career

Subject	Why is it important for careers?	What careers require the subject?
<p>English</p>	<p>How English relates to careers You may think English classes only relate to a few occupations, such as writing or editing. But every job requires workers to understand instructions quickly and to explain problems to supervisors and other workers. Good communication is essential for most occupations, even those that require little interaction with others. A problem cited by employers of engineers, for example, is that some technically competent workers are unable to explain what they are doing, to understand or explain what their part of a project is, or to relate their task to what others are doing. Many occupations require frequent communication. Sales workers must be able to speak effectively both on the telephone and in person to present their company’s products well. Lawyers and managers need to express themselves clearly and to analyze large amounts of information to be successful. Health care workers must be able to understand their patients’ questions and concerns and to make patients understand how to maintain their health. Psychologists and psychiatrists must be able to listen and communicate effectively.</p>	<p>Actors, directors, and producers Administrative services managers Adult education teachers Agricultural scientists Biological and medical scientists Chemists Engineering, science, and computer systems managers Foresters and conservation scientists Geologists and geophysicists Government chief executives and legislators Lawyers and judges Librarians Management analysts and consultants Manufacturers' and wholesale sales representatives Marketing, advertising, and public relations managers Meteorologists Optometrists Pharmacists Physician assistants Physicians Physicists and astronomers Podiatrists Psychologists Public relations specialists Radio and television announcers and newscasters Reporters and correspondents School teachers, kindergarten, elementary, and secondary</p>

		<p> Social scientists Social workers Special education teachers Speech-language pathologists and audiologists Urban and regional planners Veterinarians Writers and editors Bank tellers Busdrivers Cashiers Correctional officers Counter and rental clerks Court reporters, medical transcriptionists, and stenographers Dispatchers Flight attendants Funeral directors General office clerks Homemaker-home health aides Hotel and motel desk clerks Interviewing and new accounts clerks Loan clerks and credit authorizers, checkers, and clerks Nursing aides and psychiatric aides Occupational therapy assistants and aides Physical and corrective therapy assistants and aides Postal clerks and mail carriers Prepress workers Preschool teachers and child care workers Proofreaders Receptionists Reservation and transportation ticket agents and travel clerks </p>
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		<ul style="list-style-type: none"> Routing and receiving clerks Service representatives Taxidrivers and chauffeurs Telephone operators Title searchers Typesetters Typists, work processors, and data entry keyers Visual artists
Math	<p>Math skills help us cope with today’s complex world. We use math to carry out everyday tasks such as balancing a checkbook, shopping for groceries, cooking, and creating a personal budget. Other important skills we learn from studying math include problem solving, analysis, and estimating. And math knowledge is essential for earning a living in many occupations, including most higherpaying occupations. There are about 15,500 mathematicians employed in the United States, but millions of workers have jobs in which mathematics is a necessary part. In fact, almost all jobs require at least some understanding of basic mathematics. For example, carpenters must be able to measure lengths and angles when installing wood trim. Machinists need to understand and manipulate angles and dimensions. Loan officers must determine applicants’ debt-equity ratios before approving mortgage applications. And math skills are required for any science, engineering, computer, and technical occupation. Math is also an important part of a well-rounded education. Most high schools require students to take at least 2 years of math to graduate. And most colleges require some proficiency in math for all applicants, regardless of their intended majors.</p>	<ul style="list-style-type: none"> Actuaries Agricultural scientists Architects Biological and medical scientists Chemists Computer scientists, computer engineers, and systems analysts Economists and marketing research analysts Engineering, science, and data processing managers Engineers Foresters and conservation scientists Geologists, geophysicists, and oceanographers Mathematicians Mathematics teachers (secondary school and college) Meteorologists Operations research analysts Physicists and astronomers Social scientists Statisticians Accountants and auditors Administrative services managers Aircraft pilots Budget analysts

		<p>Chiropractors College and university faculty (nonmathematics) Computer programmers Construction and building inspectors Construction contractors and managers Cost estimators Dentists Dispensing opticians Drafters Education administrators Engineering technicians Farmers and farm managers Financial managers General managers and top executives Government chief executives and legislators Industrial production managers Insurance agents and brokers Insurance underwriters Loan officers and counselors Management analysts and consultants Optometrists Pharmacists Physician assistants Physicians Podiatrists Psychologists Real estate agents, brokers, and appraisers Respiratory therapists School teachers, kindergarten, elementary, and secondary Science technicians Securities and financial services sales representatives Special education teachers Surveyors and mapping</p>
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		<p> scientists Urban and regional planners Veterinarians Air traffic controllers Aircraft mechanics, including engine specialists Automobile mechanics Automotive body repairers Blue collar worker supervisors Boilermakers Broadcast technicians Carpenters Concrete masons and terrazzo workers Diesel mechanics Dietitians and nutritionists Electric power generating plant operators and power distributors and dispatchers Electricians Electronic equipment repairers Elevator installers and repairers Farm equipment mechanics Funeral directors General maintenance mechanics Heating, air-conditioning, and refrigeration technicians Industrial machinery repairers Inspectors, testers, and graders Jewelers Landscape architects Machinists and tool programmers Millwrights Mobile heavy equipment mechanics Motorcycle, boat, and small-engine repairers </p>
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		<p>Ophthalmic laboratory technicians</p> <p>Photographers and camera operators</p> <p>Purchasers and buyers</p> <p>Sheetmetal workers</p> <p>Stationary engineers</p> <p>Tool-and-die makers</p> <p>Water and wastewater treatment plant operators</p> <p>Welders, cutters, and welding machine operators</p> <p>Bank tellers</p> <p>Billing clerks and billing machine operators</p> <p>Bindery workers</p> <p>Bookkeeping, accounting, and auditing clerks</p> <p>Bricklayers and stonemasons</p> <p>Brokerage clerks and statement clerks</p> <p>Cashiers</p> <p>Counter and rental clerks</p> <p>Drywall workers and lathers</p> <p>Glaziers</p> <p>Interviewing and new accounts clerks</p> <p>Library assistants and bookmobile drivers</p> <p>Loan clerks and credit authorizers, checkers, and clerks</p> <p>Manufacturers' and wholesale sales representatives</p> <p>Medical assistants</p> <p>Metalworking and plastic-working machine operators</p> <p>Order clerks</p> <p>Payroll and timekeeping clerks</p> <p>Plasterers</p> <p>Postal clerks and mail carriers</p>
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		<ul style="list-style-type: none"> Precision assemblers Prepress workers Printing press operators Private detectives and investigators Reservation and transportation ticket agents and travel clerks Roofers Secretaries Stock clerks Structural and reinforcing ironworkers Taxidrivers and chauffeurs Teacher aides Tilesetters Traffic, shipping, and receiving clerks
Science	<p>Studying science helps us understand the discoveries that affect our daily lives. Every time we use a telephone, television, or computer, we are using a product of science. We use our knowledge of science when making decisions about our health and diet. Even common hobbies, such as cooking, gardening, and photography, rely on scientific principles. By studying science, we learn how the universe works; we learn to observe, classify, measure, predict, interpret, and communicate data; and we develop the ability to think logically and solve problems. The skills and knowledge that come from studying science are important in many occupations. There are almost 400,000 scientists employed in the United States, but 21 million workers use science on the job. For example, mechanics use scientific procedures when repairing or testing equipment. Physical therapists use biology and physics to rehabilitate patients. Journalists use scientific knowledge when writing about technology, health, or the environment. And scientific problem solving skills are necessary for most computer occupations. Science courses are also important if you want an advanced education.</p>	<ul style="list-style-type: none"> Agricultural scientists Architects Archivists and curators Biological and medical scientists Chemists Chiropractors Computer scientists, computer engineers, and systems analysts Dentists Engineering, science, and computer systems managers Engineers Forensic scientists Foresters and conservation scientists Geologists and geophysicists Landscape architects Meteorologists Optometrists Pharmacists Physical therapists Physician assistants

	<p>College admissions officers often favor individuals who have taken science classes. Many colleges require at least 2 years of high school science courses, regardless of your intended major. If you want to be admitted into scientific and technical programs, you will probably need 3 or 4 years of high school science.</p>	<ul style="list-style-type: none"> Physicians Physicists and astronomers Podiatrists Respiratory therapists Teachers, secondary and college (sciences) Veterinarians Aircraft mechanics, including engine specialists Aircraft pilots Broadcast technicians Cardiovascular technologists and technicians Clinical laboratory technologists and technicians College and university faculty Construction and building inspectors Construction contractors and managers Dental hygienists Dental laboratory technicians Dietitians and nutritionists Dispensing opticians Drafters Electroneurodiagnostic technologists Emergency medical technicians Engineering technicians (all specialties) Health information technicians Health services managers Licensed practical nurses Nuclear medicine technologists Occupational therapists Occupational therapy assistants and aides Photographers and camera operators Physical therapists
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		<p> Psychologists Radiologic technologists Recreational therapists Registered nurses Respiratory therapists Science technicians Electronic semiconductor processors Speech-language pathologists and audiologists Surgical technologists Surveyors and mapping scientists Automotive body repairers Automotive mechanics Barbers and cosmetologists Boilermakers Chefs, cooks, and other kitchen workers Dental assistants Diesel mechanics Electricians Electronic equipment repairers Elevator installers and repairers Farm equipment mechanics Farmers and farm managers Firefighting occupations Fishers, hunters, and trappers Funeral directors General maintenance mechanics Heating, air-conditioning, and refrigeration technicians Home appliance and power tool repairers Industrial machinery repairers Jewelers Landscaping, groundskeeping, nursery, greenhouse, and lawn service occupations </p>
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		<p> Machinists and tool programmers Medical assistants Millwrights Mobile heavy equipment mechanics Motorcycle, boat, and small-engine mechanics Nursing aides and psychiatric aides Ophthalmic laboratory technicians Pest controllers Pharmacy technicians Photographic process workers Physical and corrective therapy assistants Plumbers and pipefitters Prepress workers Printing press operators Stationary engineers Structural and reinforcing iron workers Tool-and-die makers Urban and regional planners Vending machine servicers and repairers Water and wastewater treatment plant operators Water transportation occupations Welders, cutters, and welding machine operators </p>
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