Name: Date:

**Diagnose a Skin Disease Project:** *Infections/Diseases of the Integumentary System*

**Introduction:** The purpose of learning Anatomy and Physiology goes deeper than just memorizing structures and cells in your body; it is to understand what role they play so that you can help explain disease on a deeper level and take steps towards living a healthier life. Why should only doctors and health care professionals have all the answers?

In this project, you will switch roles. You will be the dermatologist at a skin disease center and are responsible for diagnosing your patient based upon the symptoms they describe. In addition, you will be responsible for raising awareness for the particular skin disease and share your knowledge with others.

**Goal:** Your task is to diagnose the illness and inform others of the disease (while developing your own knowledge of a skin illness)

**Role:** You are the dermatologist at a center for infections and diseases of the skin.

**Audience:** Once you diagnose your disease, you will need to raise awareness about the disease. You may select an audience from the list below. Please note that the product you create must represent the audience you select. For example, if your audience was the family of the patient, a brochure or informational pamphlet would be sufficient (not a PowerPoint.)

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| --- | --- | --- |
| Family of patient | Expert in skin | Poet |
| Patient | Friend | Police officer |
| Public Service Awareness | Celebrity | Science researcher |
| Science Teacher | Newscaster | Writer |
| Professor | Parent | Advertiser for pharmaceutical company |
| Blog/Information website  | Student |  |

**Product:** You will select a product based upon the audience you select. Any one of the products below are acceptable:

|  |  |  |
| --- | --- | --- |
| Advertisement Flier | Children’s book  | Poster board  |
| Brochure | Website  | Drawing  |
| Essay  | Blog  | PowerPoint/Prezi  |
| Letter (send to inform patients of diagnosis)  | Rap  | Story of a person with the disease  |
| Newscast video clip  | Skit  | Information video  |
| Poem  | Teach a mini-lesson  |  |

**Standards/Rubric:**  (Case Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_)

**Day 1:** Diagnosis of the disease and begin research on the disease. My initials required to continue:(\_\_\_\_\_\_)

US National Library of Medicine: <http://www.ncbi.nlm.nih.gov/pubmedhealth/s/diseases_and_conditions/a/>

WebMD: <http://www.webmd.com/skin-problems-and-treatments/guide/default.htm>

Medicine Net: <http://www.medicinenet.com/skin/focus.htm>

MayoClinic: <http://www.mayoclinic.com/health/DiseasesIndex/DiseasesIndex>

**Day 2:** Project work day (Audience and product needs to be identified and verified by Ms. Kayl.)

(My initials required \_\_\_\_\_\_\_\_)

1. (5 points) Name your disease and describe what symptoms helped you correctly diagnose the disease. Describe the process you used to identify the unknown disease.
	1. List the websites that helped you identify
2. (5 points) Description of the causes for the disease and how common it is.
	1. Be sure to understand the disease on a cellular level and relate it to at least one type of tissue learned in the histology unit.
3. ( 5 points) Explain the signs and symptoms. Most of these are already given to you but others may be present.
4. (5 points) Explain the treatments, cures, prevention of the disease
	1. Be sure to use language that is appropriate for your “audience” while still maintaining the integrity of the material. (Don’t oversimplify it)
5. (5 points) Provide no less than 3 images and graphics of your diseases (in color.)
6. ( 5 points) Create a bibliography using no less than 3 sources(MLA). For help, use this website <http://citationmachine.net/index2.php>
7. (15 points for the presentation) See attached rubric.
8. (5 points) Be sure to make this project fun and creative, synthesizing information learned about histology, skin disease, researching online and synthesizing material!
9. Total presentation and product is **worth 50 points.**

**Due Date:** Thursday, November 15th

Case Number 1:

**Patient:** 14 year old Caucasian male, active in sports, grew 1½ inches in the last year alone

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* An increase in the greasy secretions from the face's sebaceous glands; patient complains of excessively oily skin
* Clogs can take the form of blackheads: small, flat spots with dark centers.
* Clogs can take the form of whiteheads: small, flesh-colored bumps.
* Patient’s mother and father both had this disorder

Case Number 2:

**Patient:** 23 year old Asian female, works an office job, in good health

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Skin patches that began a few weeks ago as:
	+ Very itchy
	+ Red
	+ Dry
	+ Swollen
	+ Sore
* Rash became crusty and scaly.
* Rash began extremely itching and itching persisted.
* Rash appeared on the insides of elbows, backs of knees and the face
* Family members also experienced these symptoms, although they only occurred during “flare-ups”

Case Number 3:

**Patient:** 35 year old Irish American male, works a highly stressful job as a lawyer, was recently in a cold, dry location for a business trip.

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Bright red areas of raised patches (plaques) on the skin, often covered with loose, silvery scales.
* Plaques occurring on the knees, elbows, scalp, hands, feet, or lower back.
* Tiny areas of bleeding when skin scales are picked or scraped off
* Itching near and on the plaques
* Yellowish discoloration of the toenails and separation of the end of the nail from the nail bed.
* Mother suffered from similar patches.

Case Number 4:

**Patient:** 19 year old Latino male, sexually active with multiple partners, in poor overall health

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* First noticed a tingling sensation in the genitalia and groups of small red bumps that develop into blisters.
* Over the next 2 - 3 weeks, more blisters appeared and rupture into painful open sores.
* The lesions eventually dry out and develop a crust but healed rapidly
* Developed flu-like discomfort, headache, muscle aches, fever, and swollen glands
* Family has no history of this disorder.

**Case Number 5:**

**Patient:** 8 year old African American female, mother chose to not have her children immunized, was feeling ill the last week

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* A red, itchy rash, initially resembling insect bites, developed on face, scalp, chest and back
* Small, liquid-filled blisters that break open and crust over developed where the rash was
* Fever, abdominal pain or loss of appetite
* General feeling of unease and discomfort (malaise) or irritability
* Rash went through these 3 phases:
	+ Raised pink or red bumps (papules), which break out in different spots over several days
	+ Fluid-filled blisters (vesicles), forming from the raised bumps over about one day before breaking and leaking
	+ Crusts and scabs, which cover the broken blisters and take several more days to heal

**Case Number 6:**

**Patient:** 12 year old Caucasian male, involved in swimming and often frequents locker rooms.

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Small, fleshy, grainy bumps that is flesh-colored, white, pink or tan
* Bumps are rough to the touch
* Small bumps appeared on one finger and the side of the foot
* Child tried to pick at it and it bleed heavily.
* Mother noticed she had one developing on her thumb as well.

**Case Number 7:**

**Patient:** 16 year old Caucasian male, active in wrestling and recently competed in the state championships, aside from the rash, he is feeling completely healthy

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* A circular rash that developed near the armpit.
* Rash is red and inflamed around the edge and healthy looking in the middle
* Slightly raised expanding rings of red, scaly skin.
* Family has no history of this condition.

**Case Number 8:**

**Patient:** 21 year old African American male, plays college football for University of Michigan, aside from the rash, he is feeling 100% healthy

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Patient experiencing Itching, stinging and burning between the toes
* Itching, stinging and burning on the soles of your feet
* Itchy blisters
* Cracking and peeling skin, especially between his toes and on the soles of his feet
* Excessive dryness of the skin on the bottoms or sides of his feet
* Family has never experienced these symptoms

**Case Number 9:**

**Patient:** 32 year old Caucasian female, philanthropist who travels to hospitals to help the sick, does not believe in vaccines; therefore has never received them, recently traveled to an isolated village in Malaysia.

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Started feeling ill after about 17 days after traveling
* Patient felt a sudden onset of flu-like signs and symptoms occurs. These include:
	+ Fever
	+ Overall discomfort
	+ Headache
	+ Severe fatigue
	+ Severe back pain
	+ Vomiting and diarrhea
* A few days later, flat, red spots appear first on her face, hands and forearms, and later on her trunk. Within a day or two, many of these lesions turn into small blisters filled with clear fluid, which then turns into pus. Scabs begin to form eight to nine days later and eventually fall off, leaving deep, pitted scars.
* Family has no history of this condition

**Case Number 10**

**Patient:** 46 year old Irish American male, native to Florida, works as a construction manager that pours concrete, fair skinned

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* A large brownish spot with darker speckles developed on his nose; he noticed it about 4 months ago and it has since grown in shape/size
* He at first thought it was just a mole but the texture change has him worried
* Spot has an irregular border and portions that appear red, white, blue or blue-black
* Family has no history of these changing moles

**Case Number 11**

**Patient:** 23 year old Caucasian female, in good health, has been undergoing extreme/strenuous exercise for a competition, loves spicy foods, fair skinned

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Red areas on her face that seem to come and go (almost every 4 months she has a flare-up)
* Small, red bumps or pustules on her nose, cheeks, forehead and chin (but not the same as whiteheads or blackheads)
* Visible small blood vessels on her nose and cheeks
* She has the tendency to flush or blush easily
* Mother has experienced similar symptoms although she never visited a physician for diagnosis

**Case Number 12**

**Patient:** 32 year old Latino male, avid outdoorsman, just returned from a camping/hiking trip in northern Michigan woods (It’s springtime and unusually hot), in great physical shape

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Developed a rash that was red, itched, swelled and caused little blisters to form
* Rash appeared as a straight line along his legs and on the outside of his forearms, a tiny patch also appeared on his face
* The rash seems to spread if and when he scratches the area.
* Family has no history of this condition although his camping partner has developed similar symptoms

**Case Number 13**

**Patient:** 10 year old female Brazilin immigrant, recently traveled to America with her healthy family.

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* She developed since lesions that are lighter than her normal skin color
	+ Lesions have a decreased sensation to touch, heat, or pain
	+ Lesions seem to not be healing
* She began developing muscle weakness and overall fatigue
* General numbness or lack of feeling in the hands, arms, feet, and legs
* Family members all healthy but a member (of her rural village) complained of similar symptoms; her family traveled to America to seek answers.

**Case Number 14**

**Patient:** 65 year old African America, in general good health, was never vaccinated for chickenpox and developed them when he was 12.

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Patient developed a red rash that began a few days after pain, numbness and tingling
* Eventually fluid-filled blisters developed and broke open then crusted over
* Complained of itching and a minor fever and chills
* General achiness, dull headache and fatigue before the rash broke out.
* Interesting enough, the rash developed as a stripe of blisters that wrapped around either the left or right side of his torso.

**Case Number 15:**

**Patient:** 36 year old African American male, in good health, very active, aside from skin condition, he is experiencing no other symptoms

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* First noticed white patches (depigmentation) on his skin.
* Patches were appearing on his face and around his lips.
* Slowly developed into symmetrically identical patches on both sides of the body
* Noticed some premature graying of the scalp and beard.
* No other family member has experienced such symptoms

**Case Number 16**

**Patient:** 17 year old female Polish American, has brittle/dry hair therefore she tends to wash her hair every 3rd day

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Has seen symptoms for the last 2 years but it tends to get worse in fall and winter.
* White, oily looking flakes of dead skin dot her hair and shoulder
* Becomes more noticeable when he itches her scalp; therefore she has grown more self-conscious to it and is seeking help
* Family members are not experiencing similar symptoms.

**Case Number 17**

**Patient:** 58 year old Hispanic female, years of obesity has led to diabetes, inactive and has a hard time adequately showering herself and has hired a live-in aid (aid noticed symptoms and send her to the clinic)

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* Aid noticed dark, thickened, velvety skin in body folds and creases, especially in her armpits, groin and neck.
* Patient did complain that the area has slowly been changing in the past 12 months.
* The affected skin also had a foul smell or odor to it
* Family members have no related symptoms

**Case Number 18**

**Patient:** 28 year old Native American male, owns a company that builds furniture by hand, overall good health, confesses he needs to buy a new pair of work boots

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant**

**Symptoms:**

* He noticed a thick, rough area of skin that formed into a hardened, raised bump
* Some tenderness or pain under the skin developed (which eventually brought him to the clinic)
* Developed 2 separate areas of concern:
	+ The side of his pinkie toe developed a hard center surrounded by inflamed skin. This causes pain when pressed.
	+ On the sole of his foot, a larger but less painful bump developed. It creates less pain but can feel it when his boots run on his foot.
* This is not the first time he has developed these bumps but their pain is increasing with no treatment. Many of his co-workers complain of similar bumps on their feet and hands

**Case Number 19**

**Patient:** 21 year old Asian American, recently returned from a trip to Europe (where she stayed in youth hostels and used public restrooms frequently)

**Type: Auto-immune/Exposure/Unknown, Viral, Bacterial, Fungal, Plant, Animal**

**Symptoms:**

* Complains of itching, often severe and usually worse at night
* Thin, irregular burrow tracks made up of tiny blisters or bumps on the affected skin
	+ The burrows or tracks are appearing in the folds of her skin.
	+ Areas include between her fingers, in her armpits and along the insides of her wrist.
* She remembers other travelers in the youth hostel itching their hands while playing cards at night
* Family members have no similar symptoms; although her travel partner experienced similar symptoms.

Acne \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Eczema\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Psoriasis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Herpes simplex\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chicken pox\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Warts\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Impetigo\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Folliculitis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Furuncle(boils)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ringworm (**Tinea capitis)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Jock itch\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Athletes foot (**Tinea pedis)\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Small pox\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cancer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rosacea\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Poison ivy\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Leprosy\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Thrush\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Shingles\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Insect bites\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Monkeypox\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Spider bites\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vitiligo\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dandruff\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hyperhidrosis (excessive sweating)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lentigines (sun spots)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hives\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Acanthosis Nigricans\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Corns/calluses\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Scabies\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pressure sores\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Burns \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_`

**Planning Chart:** *Can help you prepare and plan for the project.*

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| --- | --- | --- | --- | --- |
| **Name/Process:** | **Causes/Tissue Affected:** | **Signs/Symptoms:** | **Treatment/Cures:** | **Images (3):**  |
|  |  |  |  |  |
| **Source:** | **Source:** | **Source:** | **Source:** | **Source:** |

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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Teacher: Ms.Kayl  |

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| Date of Presentation: \_\_\_\_\_\_\_\_\_\_\_\_ | Title of Work: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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|   | **Criteria** | **Comments:** |

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|  | 1 | 2 | 3 |   |
| **Organization** | Audience cannot understand presentation because there is no sequence of information. | Audience has difficulty following presentation because student jumps around. | Student presents information in logical, interesting sequence which audience can follow. |  |
| **Content Knowledge** | Student does not have grasp of information; student cannot answer questions about subject. | Student is uncomfortable with information and is able to answer only rudimentary questions. | Student demonstrates full knowledge (more than required) with explanations and elaboration. |  |
| **Visuals** | Student used no visuals. | Student occasional used visuals that rarely support text and presentation. | Student used visuals to reinforce screen text and presentation. |  |
| **Mechanics** | Student's presentation had four or more spelling errors and/or grammatical errors. | Presentation had three misspellings and/or grammatical errors. | Presentation has no misspellings or grammatical errors. |  |
| **Delivery** | Student mumbles, incorrectly pronounces terms, and speaks too quietly for students in the back of class to hear. Goes over time frame by over 3 minutes. | Student incorrectly pronounces terms. Audience members have difficulty hearing presentation. Goes over time frame by 3 min. | Student used a clear voice and correct, precise pronunciation of terms. Stays in 5 min. time frame |  |
|   |   |   | **Subtotal---->** |  |

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| **Product:**

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| --- | --- | --- |
| Name/Process: |  | **5** |
| Causes/Tissue Affected |  | **5** |
| Signs/Symptoms: |  | **5** |
| Treatments, cures, prevention  |  | **5** |
| Illustrations, pictures  |  | **5** |
| Bibliography, 3 sources |  | **5** |
| Creativity/Overall Effort  |  | **5** |

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 **Grade:**

 **Presentations: \_\_\_\_\_\_\_\_/15 points**

 **Product: \_\_\_\_\_\_\_\_/35 points**

 **Total: \_\_\_\_\_\_\_\_/50 points**

 **Comments:**