

Modes of Viral Transmission Investigation

(Adapted from Disease Detectives PBI lesson by Gabi Garcia and Mary Wissinger)

Day 1

Stage	Time	What the teacher does...	What the student does...
Bell Ringer	5 min	Hands out Bell Ringer as students walk in	Answers bell ringer
Introduction	5 min	Asks students to think of different modes of viral transmission and provide examples	Brainstorm on different modes of viral transmission and compare with shoulder partner before sharing with the class
Explain Assignment	10 min	Introduces the driving question <i>"How does structure and function related to viral transmission?"</i> Assign student groups (pairs) Assign patient to each group	Research patient's symptoms to find three possible illness
Research	30 min	Walk around answering student questions	Research patient's symptoms to find three possible illness
Exit Ticket	5 min	Pass out exit tickets	Answer exit tickets

Day 2

Stage	Time	What the teacher does...	What the student does...
Collaboration	10 min	Will sign off on students final illness	Collaborate with a group that has the same patient to narrow down their three illness possibilities down to one
Research Wrap Up	10 min	Walk around and make sure students are on track	Finish up research on final illness choice including virus properties and mode of transmission
Infographic	15 min	Hand out materials to make infographic Explain Rubric requirements	Create infographic based on rubric requirements

Gallery Walk	15 min	Walk around asking group question on final artifact	Walk around and visiting three groups writing down the groups specific virus and its mode of transmission
Exit Ticket	5 min	Pass out exit ticket	Answer exit ticket

Infographic Rubric

	Possible Points	No Credit (0)	Partial Credit (5)	Full Credit (10)
Correct Virus	10	No disease was listed	Incorrect disease was listed	Correct disease was listed
List of symptoms	10	No symptoms were listed	Some symptoms were listed	All symptoms were listed
How it is contracted	10	No information on how the disease is contracted	Some information on how the disease is contracted	Complete information on how the patient's disease was contracted
Prevention methods	10	No prevention methods listed	Few prevention methods listed	Prevention methods for patient's disease are listed and explained
Treatment methods	10	No treatment methods listed	Some treatment methods listed	Treatment methods listed and explained
Presentation (listen to classmates presentations and complete handout AND present their infographic to other groups)	10	0/3 of the listed requirements met	$\frac{1}{3}$ or $\frac{2}{3}$ of the listed requirements met	3/3 of the listed requirements met

Total : ___/60

Patients

Patient Victoria

Diagnosis Notes: Ebola

Patient Victoria

- * **Age:** 35
- * **Hometown:** Houston, TX
- * **Profession:** Anthropologist
- * **Hobbies:** Traveling

Victoria is an anthropologist who loves studying different cultures and traveling. She just returned from an expedition in Zaire. She started feeling bad about a week after her trip. She wants to get better before her next expedition to Australia.



Patient Symptoms Include:

- Fever
- Loss of appetite
- Vomiting
- Diarrhea
- Sore throat

Patient Peter

Diagnosis Notes: Shingles

Patient Peter

- * Age: 67
- * Hometown: Waco, TX
- * Profession: Farmer
- * Hobbies: Collecting and fixing old farm equipment



Peter has been farming his land for several decades. Him and his wife have three children and six grandchildren. He enjoys a simple life, but admits that farming has become very stressful lately in these economic times.

Patient Symptoms Include:

- Constant headache for a few weeks
- Sensitive to light
- A painful rash on the side of his face in the shape of a banding pattern
- Has occasionally felt dizzy and weak

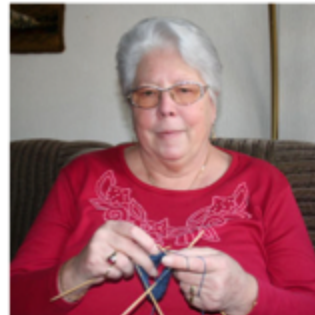
Patient Joanie

Diagnosis Notes: Influenza

Patient Joanie

- * Age: 80
- * Hometown: Grand Prairie, TX
- * Profession: N/A
- * Hobbies: Knitting, quilting, and reading

Joanie is a sweet grandma of 6 children, and 10 grandchildren. She spends her time knitting and making quilts for her family members. She also enjoys reading her books, or stories as she calls them. Joanie also enjoys going to the community center to play bridge with her friends. Lately she has been feeling really under the weather, and wants to get better in time to see her grandchildren.



Patient Symptoms Include:

- Fever
- Chills
- Weakness
- Nausea
- Cough

Patient Clyde

Diagnosis Notes: Measles

Patient Clyde

- * Age: 7
- * Hometown: Victoria, TX
- * Profession: N/A
- * Hobbies: playing with his trucks and participating with his fellow Cub Scouts



Clyde is an energetic 7-year-old boy. He enjoys playing with his fleet of trucks, and loves spending time with fellow Cub Scout members. His troop went on a camping trip about 11 days ago. He learned so much, and had a great time. His mother has noticed that Clyde has been very irritable, and she is worried about the high fever he had last night.

Patient Symptoms Include:

- Skin Rash
- Runny nose
- Cough
- Fever

Patient Bill

Diagnosis Notes: Mononucleosis

Patient Bill

- * Age: 16
- * Hometown: San Antonio, TX
- * Profession: HS Student
- * Hobbies: Hanging out with his friends, skating, biking

Bill likes hanging out with his friends at the skate park, especially with his girlfriend, Shirley. He also likes learning new tricks to do with his bicycle. He has been feeling ill for the past few days, and his mom made him go to the doctor.

Patient Symptoms Include:

- Headache
- Fever
- Exhaustion
- Enlarged lymph nodes
- Decreased appetite

