**HUMAN BODY SYSTEMS INQUIRY PROJECT**

**LEARNING INTENTION**:

1. I can understand how body systems work together to keep a body functioning.
2. I can collaborate with my peers to create a presentation.

**INSTRUCTIONS**:

1. Each group member will research one of the main body systems and at least one ‘OTHER SYSTEM’.
2. You will use the success criteria and all information on this handout to efficiently

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| **MAIN BODY SYSTEMS TO RESEARCH:** | **OTHER SYSTEMS**: |
| 1. Excretory System
 | 1. Circulatory System
 |
| 1. Reproductive System
 | 1. Digestive System
 |
| 1. Hormonal / Endocrine System
 | 1. Excretory System
 |
| 1. Nervous System
 | 1. Muscular System
 |
|  | 1. Respiratory system
 |
|  | 1. Skeletal System
 |

**CONTENT SUCCESS CRITERIA**

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| --- | --- |
|  | **EXTENDING** |
| **BODY SYSTEM FUNCTION** | * Clearly explains the function of each body system
 |
| **DIAGRAM** | * Diagram is clearly labeled and neatly drawn
* If diagram has been borrowed from a reliable source, the source must be clearly shown
* Diagram is coloured correctly
 |
| **ORGANS AND FUNCTIONS** | * Clearly labels all organs for each body system
* Clearly explains the purpose/function of each organ in the body system
* Identifies cells/tissues within the organs of the specific system
* Provides information that allows the audience to fully understand how the organs help the system function
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| **INTERACTIONS WITH OTHER SYSTEMS** | * Clearly explains how the body systems interact with one another to function
 |
| **2 DISEASES ASSOCIATED**  | * Clearly explains 2 common diseases associated with the body system (causes, effects, statistics, etc)
 |
| **INTERESTING FACTS** | * Provides some interesting facts about the body system
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| **FIRST PEOPLE’S UNDERSTANDING OF BODY SYSTEMS** | * Provides a first people’s understanding of body systems in humans/animals
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**PROCESS/PRESENTATION SUCCESS CRITERIA**

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| --- | --- |
|  | **EXTENDING** |
| **PRESENTATION** | * Creative presentation
* Effort and thought has clearly been shown
 |
| **INQUIRY**  | * All research is organized and provided in a folder for all group members
 |
| **CREATIVE PROCESS** |  |
| **COLLABORATION** | * All group members worked collaboratively towards a common goal
* All group members learned about all researched body systems
* peer-assessment of group members has been completed.
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| **INDIVIDUAL** | * All research has been provided as evidence of your learning
* Student self-assessment and
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|  |
| --- |
| **Presentation : (Slideshow, video, ebook, poster, pamphlet, etc)**• Titles/sub-titles/labels • Slides for each body system or more to fully explain each and all the organs involved • Lists and explain the functions of the organ system • Identifies the major organs and their functions • Describes the basic structure of all major organs in each body system • Describes how the system is linked to at least 2 other systems in the body • Describes a disease associated with their body system • 3 fun facts about your system • Document ***all*** sources from your research and for images used |

**Research**

Here are a few resources you may find useful:

<http://www.stcms.si.edu/hbs/hbs_student.htm>

 <http://kidshealth.org/kid/htbw/htbw_main_page.html>

 <http://www.imcpl.org/kids/guides/health/index.html>

 <http://www.fi.edu/learn/heart/systems/systems.html>

 <http://www.sciencenetlinks.com/interactives/systems.html>

**THINGS YOU MAY WANT TO CONSIDER FOR EACH BODY SYSTEM**

**Circulatory System**

• Major functions of circulatory system

• Diagram that includes the major parts - heart, artery, vein, capillary - and list the function(s) of each.

• Describe each of the components of blood- red blood cells, white blood cells, platelets, & plasma

• Describe the path blood travels through your body

• Explain how your body system works with other systems in the body. Use 2 examples.

• Find 5 fun facts about your body system.

• Describe two diseases associated with your body system

**Digestive System**

• Major functions of digestive system

• Diagram that includes the major parts - mouth, esophagus, stomach, small intestine, liver, pancreas, and large intestine - and list the function(s) of each.

• Describe the path food travels throughout the digestive system.

• Explain how your body system works with other systems in the body. Use 2 examples.

• Find 5 fun facts about your body system.

• Describe 2 diseases associate with your body system.

**Excretory System**

• Major functions of excretory system

• Diagram that includes the major parts - lungs, kidneys, urinary bladder, ureter, urethra, liver, and skin - and list the function(s) of each.

• Explain how your body system works with other systems in the body. You will need at least 2 examples.

• Find 5 fun facts about your body system.

• Describe 2 diseases associated with your body system.

**Muscular System**

• Major functions of muscular system

• Describe the function and locations of each type of muscle – skeletal muscle, smooth muscle, and cardiac muscle

• Diagram that includes the major muscles in the body - biceps, oblique abdominis, sartorius, deltoid, orbicularis oculi, sternomastoid, gastrocnemius, pectoral, temporalis, gluteus maximus, quadriceps, tibialis, masseter, rectus abdominis, and triceps

• Describe how muscles work in pairs to make parts of the body move using the biceps and triceps as an example.

• Explain how your body system works with other systems in the body. You will need at least 2 examples.

• Find 5 fun facts about your body system.

• Describe 2 diseases associated with your body system.

**Nervous System**

• Description and major functions of the central nervous system and peripheral nervous system.

• Diagram that includes the major parts - brain, spinal cord, nerves, and neurons - and list the function(s) of each.

• Describe the path a nerve impulse travels throughout your body from stimulus to response.

• Explain how your body system works with other systems in the body. You will need at least 2 examples.

• Find 5 fun facts about your body system.

• Describe 2 diseases associated with your body system.

**Respiratory System**

• Major functions of respiratory system

• Diagram that includes the major parts - trachea, lungs, diaphragm, epiglottis, larynx, vocal cords - and list the function(s) of each.

• Describe the “breathing” process.

• Explain how your body system works with other systems in the body. You will need at least 2 examples.

• Find 5 fun facts about your body system.

• Describe 2 diseases associated with your body system.

**Skeletal System**

• Major functions of skeletal system

• Diagram that includes the major parts -bones, ligaments, and tendon - and list the function(s) of each. NOTE: Your diagram should also include the following bones in the body: cranium, clavicle, humerus, scapula, sternum, rib, vertebra, ulna, radius, carpals, metacarpals, phalanges, pelvis (may list parts), femur, patella, tibia, fibula, tarsals, and metatarsals.

• Describe each of the following joints and where they are located: hinge, pivot, and balland-socket. You may include other joints as well.

• Explain how your body system works with other systems in the body. You will need at least 2 examples.

• Find 5 fun facts about your body system.

• Describe 2 diseases associated with your body system.