

Scientific Drawings Rubric

Categories	2	1.5	1	0.5
Title	Title is informative, centered, and larger than other text.	Title is informative and larger than other text.	Title is informative and centered.	The title is incomplete and does not clearly indicate what organism is pictured.
Drawing – General	Lines are clear and not smudged. There are almost no erasures or stray marks on the paper. Color is used carefully to enhance the drawing. Overall, the quality of the drawing is excellent.	There are a few erasures, smudged lines or stray marks on the paper, but they do not greatly detract from the drawing. Color is used carefully to enhance the drawing. Overall, the drawing is good.	There are a few erasures, smudged lines or stray marks on the paper, which detract from the drawing OR color is not used carefully. Overall, the quality of the drawing is fair.	There are several erasures, smudged lines or stray marks on the paper, which detract from the drawing. Overall, the quality of the drawing is poor.

Scientific Drawings Rubric (Continued)

Categories	2	1.5	1	0.5
Drawing – Details	All assigned details have been added. The details are clear and easy to identify.	Almost all assigned details (at least 80%) have been added. The details are clear and easy to identify.	Almost all assigned details (at least 80%) have been added. A few details are difficult to identify	Fewer than 80% of the assigned details are present OR most details are difficult to identify.
General Formatting	The drawing is large enough to be clear (about 1/2 of a page of typing paper). Student name, class, and date are on the back of the drawing in the lower left corner. There is a figure caption that describes the drawing. The caption includes information about magnification, when appropriate.	The drawing is large enough to be clear (about 1/2 of a page of typing paper). Student name, class, and date are on the back of the drawing in the lower left corner.	The drawing is a little too small. Student name, class, and date are on the back of the drawing in the lower left corner.	The Drawing is much too small.

Scientific Drawings Rubric (Continued)

Categories	2	1.5	1	0.5
Labels	Every item that needs to be identified has a label. It is clear which label goes with which structure.	Almost all items (90%) that need to be identified have labels. It is clear which label goes with which structure.	Most items (75-89%) that need to be identified have labels. It is clear which label goes with which structure.	Less than 75% of the items that need to be identified have labels OR it is not clear which label goes with with item.

Student grade for the assignment will be the total points earn from the five categories:

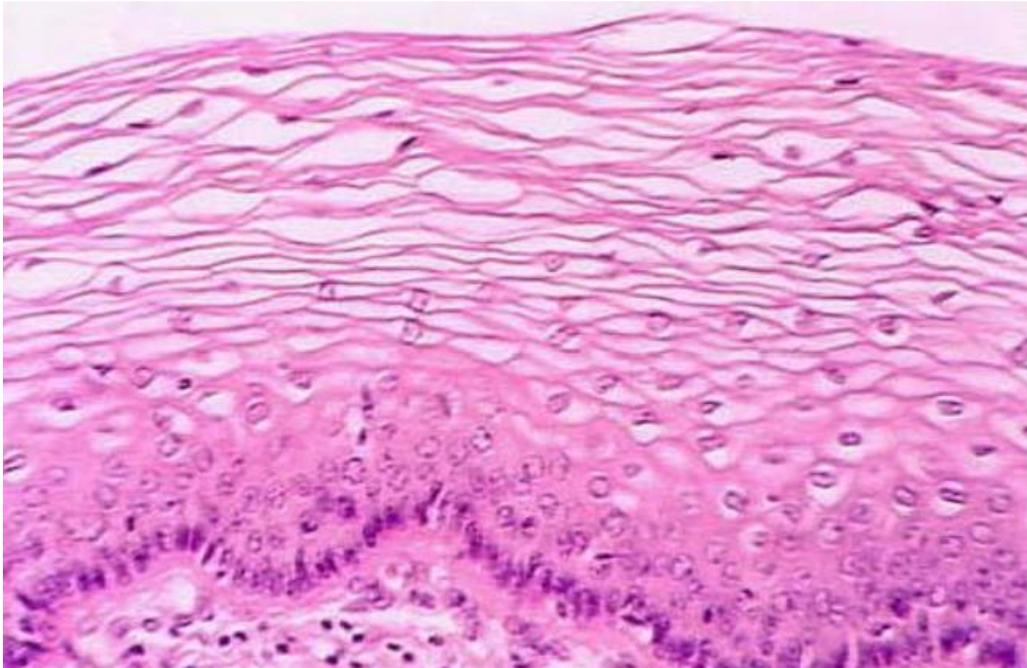
(Title) + (Drawing: General) + (Drawing Details) + (General Formatting) + (Labels) = (Student Grade)

You may download the rubric from the “Documents” page under the “Home” tab on IsonBiology.com

Tissues Drawings

Epithelial Tissue

STRATIFIED SQUAMOUS EPITHELIUM



Appearance: Stratified squamous epithelium is made up of layers of flattened cells.

Functions: This layer of epithelium is designed to protect underlying layers of tissue.

Location: This tissue type may be found in the outer layer of skin, and lines the mouth, throat, vagina, and anal canal.

Other information: Outer layers may become keratinized, but this does not occur where the tissue remains moist.

Tissues Drawings Schedule

Day 1: Epithelial Tissues	Day 2: Connective Tissues	Day 3: Muscle & Nervous Tissues
<ol style="list-style-type: none">1. Simple Squamous Epithelium2. Simple Cuboidal Epithelium3. Simple Columnar Epithelium4. Stratified Squamous Epithelium5. Stratified Cuboidal Epithelium6. Stratified Columnar Epithelium7. Pseudo Stratified Columnar Epithelium8. Transitional Epithelium	<ol style="list-style-type: none">1. Loose Connective (Areolar) Tissue2. Adipose3. Dense Connective Tissue4. Hyaline Cartilage5. Elastic Cartilage6. Fibrocartilage7. Bone8. Blood	<ol style="list-style-type: none">1. Skeletal Muscle Tissue2. Smooth Muscle Tissue3. Cardiac Muscle Tissue4. Neurons

Tissues Drawings

Day 1: Epithelial Tissue

TISSUES TO DRAW:

1. Simple Squamous Epithelium
2. Simple Cuboidal Epithelium
3. Simple Columnar Epithelium
4. Pseudo Stratified Columnar Epithelium
5. Stratified Squamous Epithelium
6. Stratified Cuboidal Epithelium
7. Stratified Columnar Epithelium
8. Transitional Epithelium

TERMS TO IDENTIFY AND LABEL:

Nucleus (All)

Basement membrane (All)

Goblet cells (#s 3 & 4)

Cilia (#s 3 & 4)

Keratinizing layer (#5)

Tissues Drawings

Day 2: Connective Tissue

TISSUES TO DRAW:

1. Loose Connective (Areolar) Tissue
2. Adipose
3. Dense Connective Tissue
4. Hyaline Cartilage
5. Elastic Cartilage
6. Fibrocartilage
7. Bone
8. Blood

TERMS TO IDENTIFY AND LABEL:

- | | |
|-------------------------------|------------------------|
| Fibroblast (#s 1 & 3) | Osteocytes (#7) |
| Elastic fibers (#s 1, 4 – 6) | Osteons (#7) |
| Collagenous fibers (#s 1 & 3) | Osteonic canals (#7) |
| Ground substance (#1) | Canaliculi (#7) |
| Nucleus (#s 1 – 6) | Red blood cells (#8) |
| Chondrocytes (#s 4 – 6) | White blood cells (#8) |
| Lacunae (#s 4 – 7) | Platelets (#8) |

Tissues Drawings

Day 3: Muscle and Nervous Tissues

TISSUES TO DRAW:

1. Skeletal Muscle Tissue
2. Smooth Muscle Tissue
3. Cardiac Muscle Tissue
4. Neurons

TERMS TO IDENTIFY AND LABEL:

Nucleus (All)

Striations (#s 1 & 3)

Intercalated discs (#3)