



# RIEL BIOLOGY

OCTOBER 2020

## DIGITAL RESOURCES FOR ENGAGEMENT

### 1. Video Introductions

On your LMS discussion board, post a 3-5 min video yourself and your life and have students comment or post video responses. For example, "Here's what I'm cooking for dinner" or "This is what's on my bookshelf."

### 2. Surveying the "Room"

Encourage your students to talk freely with you and each other by posing questions that start conversations. For example, try the "[two truths and a lie](#)" game as a whole class or in breakout groups. This can be an ice-breaker, or a review from yesterday's lesson (including a misconception), a survey of background knowledge before the lesson.

**BONUS:** <https://www.pinterest.com/TristenYA1/biology-memes/>

Look at the dog scale and tell us:  
How do you feel today?



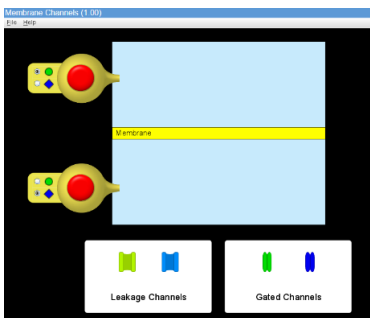
### 3. Collaboration - Jigsaw with Google Slides

Each student (or group) is responsible for one slide. Use the whole document to facilitate class discussion. Teachers can create the google document and share with groups. Students do not need Gmail accounts to edit an existing document. Duplicate file for each group. Multiple students can collaborate at the same time. (Does not record history of editing. Microsoft teams is better for this.)

### 4. Feedback or Formative Assessment with Google Forms

Create the questions in advance. Teachers can use the "summary of responses" page to share anonymized, group results. Students do not need Gmail accounts to answer questions. If you make the first question the student name you can check answers, but the "summary" can just share group results for discussion. Do not use Google Forms for "tests" as there is a way to read the HTML coding and see the correct answers.

## INTERACTIVE VIRTUAL RESOURCES



### 5. LAB SIMULATION: Membrane Channels

In this simulation tool that encourages practice with prediction and observation, students can control the concentration of two different solutes on either side of a membrane and insert open or gated channels in the membrane to see what happens.

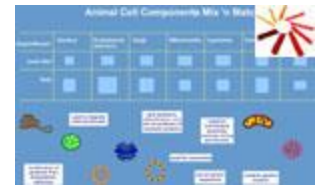
<https://phet.colorado.edu/en/simulation/membrane-channels>

Teacher documents <https://phet.colorado.edu/en/contributions/view/3582>

## 6. Cell Biology Multimedia

Quizzes and interactives from the University of Alberta, Department of Biology's instructional multimedia page (requires Flash).

<http://www.biology.ualberta.ca/facilities/multimedia/?Page=253>



Animal Cell Mix and Match



## 7. Demonstration – Osmosis

Osmosis Eggperiment – simple experiment that students can do at home (if they have the ingredients), or teachers can easily demonstrate in person and over video connection. <https://www.carolina.com/teacher-resources/Interactive/osmosis-eggperiment/tr36904.tr>

Video demonstration (back up option for kids who cannot do it at home, or to review what should have happened).

<https://www.youtube.com/watch?v=albeHs2opEM>

## 8. ELL Translation Assistance



Get the app

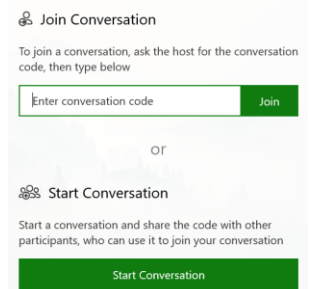
a) Real-time translation for conversation/live lessons.

<https://translator.microsoft.com/>

Teachers need to have either a Microsoft, Google or Facebook account to set up conversation.

Students join “your conversation” with a code but they have automatic translation of the spoken word (into more than 50 languages).

Students or teacher can use website or app.



b) How do I translate the text on the slides?

1. Download and install the PowerPoint add-in from [www.aka.ms/presentationtranslator](http://www.aka.ms/presentationtranslator).
2. Open any PowerPoint presentation.
3. Go to the Slide Show ribbon and click “Translate Slides”
4. Click on “Translate Slides”
5. Select the Slide Language and the Translate To language.