Christina School District Learning Choice Board
for grades 9-10 Math and Science - Optional - Approaching grade level

1- Approaching grade-level

Math

Grade 9 Activity:
- Evaluate the following:

Evaluate \( x^2 - x - 1 \) for \( x = 2 \).
Team Role: Facilitator

Evaluate \( y^3 - 7 \) for \( y = 2 \).
Team Role: Recorder/Reporter

Evaluate \( -3z - 5 \) for \( z = -2 \).
Team Role: Resource Manager

Evaluate \( 10 - b^2 \) for \( b = -3 \).
Team Role: Task Manager

Evaluate \( y^2 - y \) for \( y = -1 \).
Team Role: Facilitator

Evaluate \( x^3 - 3x \) for \( x = 2 \).
Team Role: Resource Manager

Evaluate \( 6 - 2b \) for \( b = 2 \).
Team Role: Resource Manager

NOTE: If you are able to “FaceTime” with other students, you can use the assigned roles for this activity.

Math

Grade 9:
- Evaluate the following:

Evaluate \( x(x + 2) \) for \( x = -3 \).
Team Role: Facilitator

Evaluate \( (x - 3)(2x - 5) \) for \( x = 4 \).
Team Role: Recorder/Reporter

Evaluate \( \frac{9y}{y+4} \) for \( y = 2 \).
Team Role: Resource Manager

Evaluate \( 3a^4 \) for \( a = -1 \).
Team Role: Task Manager

Evaluate \( x^2 + 10x - 20 \) for \( x = 2 \).
Team Role: Facilitator

Evaluate \( (y - 2)(y + 1) \) for \( y = -2 \).
Team Role: Resource Manager

Evaluate \( \frac{2x + 4}{y} \) for \( d = -2 \).
Team Role: Resource Manager

NOTE: If you are able to “FaceTime” with other students, you can use the assigned roles for this activity.

Math

Grade 9:
- Evaluate the following:

Evaluate \( 2x - 3 \) for \( x = 4 \).
Team Role: Facilitator

Evaluate \( \frac{y^2 + 1}{2} \) for \( y = 3 \).
Team Role: Recorder/Reporter

Evaluate \( \frac{2 + x}{2} \) for \( x = 2 \).
Team Role: Resource Manager

Evaluate \( 8z - 3 \) for \( z = 1 \).
Team Role: Task Manager

Evaluate \( b^2 - b \) for \( b = -2 \).
Team Role: Facilitator

Evaluate \( 2x^2 - 3x + 1 \) for \( x = -1 \).
Team Role: Resource Manager

Evaluate \( 5 - d^3 \) for \( d = -1 \).
Team Role: Resource Manager

Evaluate \( -2x + 2 \) for \( x = -2 \).
Team Role: Task Manager

NOTE: If you are able to “FaceTime” with other students, you can use the assigned roles for this activity.

Math

Grade 10:
- Please complete the following on triangles:

Math

Grade 10:
- Please complete the following on triangles:

Math

Grade 10:
- Please complete the following on probability:

Math

Grade 10:
- Please complete the following on probability:
Science

Grade 9:
Venus is considered to be Earth’s sister planet. Research the atmosphere of both planets and create a Venn Diagram to compare Earth and Venus.

Grade 10:
Draw and label both a plant and an animal cell with all of the appropriate organelles.

Science

Grade 9:
Construct a flow chart or diagram that teaches the steps of the scientific method. Write a short paragraph describing their significance to the ecosystem.

Grade 10:
Draw a chart and explain the cycle of photosynthesis.

Science

Grade 9:
Using a T-Chart, compare and contrast a food chain vs a food web.

Grade 10:
Write a short story about DNA and protein synthesis. Be sure to describe the role of DNA, mRNA, tRNA, ribosomes, and amino acids in making a protein.

Science

Grade 9:
What is the difference between an atom, element, molecule and compound? Create a table that identifies the type of matter, include a definition and a sample drawing of each.

Grade 10:
Create an alphabet book relating to the law of conservation of energy and energy transformations.
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<thead>
<tr>
<th>Physical Activity</th>
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</thead>
<tbody>
<tr>
<td><strong>Stair Steps</strong></td>
<td>Do you have stairs in your home or on your stoop? Take time to do step-ups. Step up, step down, and repeat. COUNT as many reps as you can, and you will find you can do more over time.</td>
<td></td>
<td><strong>Planks</strong></td>
<td>Planking is a wonderful way to strengthen your core, arms, and shoulders. With your stomach facing the floor, plant your hands on the ground shoulder-width apart, ground your toes into the floor, and lift your body into a straight line. Try holding/ COUNTING for 30 seconds and increase as you can.</td>
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<tr>
<td><strong>Burpees</strong></td>
<td>Burpees are a great way to get a full-body exercise. Start with your feet shoulder-width apart, bend at your hips and knees to go into a squat position. Place your hands on the floor in front of you and kick your feet back into a plank position. Drop down to the floor in a push-up, and press back up into the plank position. Kick your feet inward and press your body up into a jump.</td>
<td></td>
<td><strong>Jumping Jacks</strong></td>
<td>Jumping Jacks are a great full-body activity. Start with the amount that works best for you and work your way up.</td>
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- Links are case sensitive, please type exactly how they appear.