

Name: _____ Date: _____ Class: _____

Reviewing Pure Substances and Mixtures Pre-Assessment

Answer Key

1. Determine whether the substances listed in the table below are pure substances (P) or mixtures (M). Two examples are provided.

<u> P </u> gold (Au)	<u> M </u> Kool-Aid	<u> M </u> bronze
<u> P </u> water (H ₂ O)	<u> P </u> copper (Cu)	<u> P </u> pyrite (FeS ₂)
<u> M </u> brass	<u> P </u> titanium (Ti)	<u> M </u> 6al-4v

2. Read the description below. Predict whether the described substance is a pure substance or a mixture. Write your prediction and explanation in the space provided.

A substance composed of approximately 6% aluminum, 4% vanadium and 80% titanium is used as a turbine within a jet engine because of its ability to sustain extreme heat and to resist corrosion.

Prediction: mixture

Explanation: *Answers may vary. Example answer: There is no evidence to suggest that the elements are chemically bonded together.*

3. Copper is frequently mixed with other elements. What do you believe is the advantage of using a copper mixture rather than using pure copper?

Answers may vary. Example answers: Using a mixture would be more affordable, and not enough pure copper exists in the world to make everything that we need or want.

Other correct answers may indicate that sometimes copper is mixed with other elements to form alloys as a way to lower the cost of materials or make the material easier to produce.