




Bear Hibernation Task Description & Poster Planning Sheet



APPLYING OUR MODEL

Phenomenon:
The Hibernating Bear

How can we account for the tremendous weight gain and loss the bear experiences over the course of a year from both a **matter** and **energy** perspective?

Your group will develop a poster that explains what is going on with matter and energy for the bear as it prepares for (weight gain) and engages in (weight loss) hibernation.

You may design your poster any way you'd like, but it needs to communicate a full explanation, using the models we've developed. You may use this page as a guide to what it should contain. See *Bear Hibernation* reading for additional information.

WEIGHT GAIN (BEFORE HIBERNATION)

INPUTS-OUTPUTS-USES

Make an IOU diagram that shows what is happening during the period when the bear is preparing for hibernation in late summer and early fall.

Matter:

Where did the matter come from? What forms did it come in as and how was it transformed?

Energy:

What happened with energy? What processes in the bear's body required energy during this period?

Name: _____ Period: _____ Date: _____

WEIGHT LOSS (DURING HIBERNATION)

INPUTS-OUTPUTS-USES

Make an IOU diagram that shows what is happening during the period when the bear is actually hibernating over the winter.

Matter:

Where did the matter come from? What forms did it come in as and how was it transformed?

Energy:

What happened with energy? What processes in the bears body required energy during this period?

☒ **Check!** Be sure you have looked at our lists of model ideas developed over the previous few units (“Matter from Food” and “Energy from Food”). Use this remaining space to write down anything else you would like to include on your poster.